

## FISH HARVEST

- **Types of Nets**

### **CAST NETS**

<b>BEHRKO</b>	It is conical in shape, provided with pockets iron, lead sinkers at base used for catching fish in Rawalpindi & Multan areas.
<b>DOBAJU</b>	It is conical in shape, provided with pockets, iron & lead sinkers at base, used for catching small fish in Multan areas.
<b>JARI</b>	It is conical in shape, provided with pockets, iron & lead sinkers at base. It is used for catching small fish in Hyderabad, Quetta, Multan areas.
<b>OCHHALWAN JAL</b>	It is conical in shape, provided with pockets, iron & lead sinkers at base. It is used for catching fish in Manchar Lake District Dadu, Hyderabad areas.
<b>PALKU</b>	It is conical in shape, provided with sockets, iron, lead sinkers at base used for catching fish in Rawalpindi & Multan areas.
<b>RAKHA</b>	It is conical in shape, provided with sockets, iron, lead sinkers at base used for catching fish in Rawalpindi & Multan areas.
<b>SORU</b>	It is conical in shape, provided with pockets, iron, lead sinkers at base used for catching fish in Rawalpindi & Multan areas.
<b>SOTWAN</b>	It is conical in shape, provided with pockets and lead, iron sinkers at base used for catching smaller fish in Lahore, Peshawar, Multan, Rawalpindi & Sargodha areas.
<b>VEHERN</b>	It is conical in shape, provided with sockets, iron, lead sinkers at base used for catching fish in Rawalpindi & Multan areas.

### **DRAG AND SIENE NETS**

<b>BHAN</b>	It is the biggest known net used for catching Palla in River Indus in the Hyderabad areas, made of Cotton/Nylon operated by 12-15 persons from boats, dragged towards bank exploiting fish. No pockets, float of pan & sinkers of iron and lead.
<b>GHAWA</b>	It is made of cotton, provided with pockets, has floats of gourd, lead/iron sinkers. It is operated by 10-12 persons. The rope at head end is tied to a pole or held by two fishermen on the bank. The net is carried in a boat & laid in water then pulled slowly towards the bank from where it was operated trapping the fishes moving in that area, mainly used in catching palla fish from river Indus in Hyderabad areas.
<b>KARRA</b>	It is made of cotton or Nylon, operated by 4-10 persons used on the Balochistan Coast.
<b>MAHAJAL (Patti Bhiga), Toofanjai (Kadh), Chhatta</b>	It is made of cotton or hemp, rectangular with pockets, floats of weed at head end & iron sinkers at lower end, used in stagnant waters, operated by 4-10 persons in Peshawar, Rawalpindi, Sargodha and Gujrat Districts.

**(Kurga)**

**PATTA**

It is made of cotton, rectangular in form and is used in stagnant waters in Quetta & Kalat areas.

**UCH**

It is made of cotton or nylon provided with floats operated by 4 to 10 persons. It is used on Balochistan Coast.

#### **DIP NETS**

**KURLI**

This net has cone type shape, made of cotton, used in Manchar Lake.

**KHURLI**

This net is conical in shape, made of cotton used in Hyderabad district.

#### **DRIFT OR GILL NETS**

**NARA**

It is made of cotton or nylon, has floats of reeds but no sinkers, operated by 4-10 persons used in stagnant waters in Hyderabad & Khair pur areas. When laid in water, it sinks lying between 1 ft to 6 ft below water surface, used for catching all fish types.

**OJHANI**

It is made of nylon and provided with earthen floats at head ropes and iron / lead sinkers at ground ropes. It is operated by 3-5 persons. It is used for catching palla fish in river Indus.

#### **FIXED NETS**

**ADOA OR  
PATHARO**

It is a rectangular cotton net without floats. The sinkers with pockets are at the lower end. It is operated by fishermen in 2 or more boats who move by beating their copper utensils, rocking their boats from side to side and splashing water with bamboos thereby trapping fish in stagnant waters especially in big lakes of Hyderabad areas.

**CHADAR JAL**

It is rectangular net, used in shallow pond waters spread in the center of pond with its corners tied with poles which are fixed into soil. It is operated by four or more persons from the corners of pond who lift the net immediately after trapping the fish.

**KHANDI**

It is a rectangular cotton net without floats and sinkers. It is fixed with long bamboos with a gap of 6-8 feet. Its head end is flushed with water & lower end is fixed in mud.

**NARA**

Its lower part has sinkers, floating with floats attached to the upper rope fixed at one of the poles & fish are driven towards the nets.

**NILOTU OR  
PAND**

It is made of cotton with floats of reeds but no sinkers, fixed by 3-5 persons across a stream during night, used in gilling fish in Rawalpindi, Sargodha, Hyderabad areas.

**NURAH**

It is a rectangular Aak fibers net operated by single person in district Sargodha and Gujrat.

**PATTI**

It is a rectangular cotton or nylon net without floats, with sinkers of burnt clay. It is fixed with bamboos or wooden stakes used in stagnant waters operated by 2-4 persons.

**SEHAR**

It is a rectangular cotton gill net provided with floats of reeds & sinkers of burnt clay fixed at the bottom by wooden pegs provided at lower end of net. It is operated by two persons in

**SOONIMAR PATTI** stagnant waters in Hyderabad region. It is a rectangular cotton net, provided with float of pan & burnt clay sinkers. Its lower end is fixed to the bottom by two wooden pegs. The floats & sinkers keep the net in vertical position. It is used for catching the fish crossing it from either side in shallow stagnant waters in Hyderabad areas.

**THORJAR** It is a rectangular cotton net provided with floats but no sinkers. It is operated by 20-30 persons who drive the fish towards this fixed net by splashing water with bamboos & also by causing commotion in water by rocking their boats. Another net is fixed attached to the free arm of this fixed net for the exploitation of fish, in stagnant shallow waters.

#### **HAND NETS**

**DHANGLA** It is bag type net operated by two persons in shallow waters in Sheikhpura, Gujranwala, Sialkot districts.

**KALERA** It is a bag like net with a wooden frame having a short strong handle operated by a single person used for catching palla from river Indus in district Thatta.

**KOCHHRI** Bag nets circular in shape, made of cotton supported by bamboo handle used in Multan division.

**SAGGAN** Circular or triangular in form, used in Multan division.

**SAND OR SAMBOI** Triangular purse net made of nylon supported by a wooden frame, used for catching palla fish in river Indus in Hyderabad district.

#### **RODS & LINES**

**BANSI** It is a fishing rod made of bamboo with or without a pulley and a line made of cotton or nylon, with one barbed hook fixed to the line, with a float of reed or light wood.

**CHABB OR CHIPLI** It is a type of rod & line used by children with one barbed hook & a float of reed.

**DOR/LANG/WHANG** It is a long line made of cotton or nylon cord, snoods with barbed hooks at their ends which are attached to the line, at suitable intervals. Two ends of line are tied to the boats and hooks are baited and left overnight in water and are hauled in the morning.

**DORI** It is a handline comprising a strong cotton or nylon cord provided with 1 to 3 barbed hooks and with a float of reed or piece of light wood.

#### **SPEARS**

**BHALLA OR TIRI** It is composed of a blade with 4-5 barbed points attached to a bamboo or wooden shaft thrown either from boat or bank with great force at the fish. The blade plunges into the body of fish, spear is lifted out of water and fish removed.

**CHATTO:** It consists of a blade with two barbed points attached to a wooden shaft or a bamboo used for killing tortoises in Mancher Lake. The hunter by creating vibrations in the water causes the prey to come on the surface. As the prey comes above, he plunges the spear in its soft parts & lifts it out of water.

- **Fish Marketing**

Fresh fish is traded throughout Punjab. Retail markets are established in almost all the cities and towns of the province. Wholesale and distribution markets are limited to the cities and big towns. Marketing of the fish continues throughout the year except June, July and August. Lahore, Rawalpindi, Gujranwala, Faisalabad, Multan, Kasur and Sahiwal are the major fish markets in the Punjab. Each district and tehsil headquarter also serves as a fish market.

The perishable nature of fish, lack of appropriate transport facilities, day to day fluctuation of fish catch, functioning of un-regulated markets, non-availability of adequate storage facilities and limited taste for fish are the factors which have complicated the marketing system of fish.

### **Fish Marketing Channel**

A route followed by a commodity in the marketing operation from the producer to the consumer is called marketing channel. The marketing of fish in Punjab is carried out through indirect channel. Fish is generally brought in the markets direct from rivers as well as from fish farms in private sector. Some quantity of fish is directly auctioned to retailers (consumers) whereas the surplus quantity is marketed to the wholesalers.

### **Marketing Intermediaries**

Marketing intermediaries include all the individuals or firms who handle the fish after it leaves the producers until it reaches the consumers. They are of two types. One who assumes business risk, invests capital and accepts the title of goods i.e. contractor, private fish farmer, middleman and retailer. The others who bear no risk and do not accept the ownership but sell their services i.e., fishermen, commission agents and jobbers.

#### **a) Contractors**

The contractors perform a key role in the marketing of fish. They take the contracts or lease of fishing rights of public water areas from the Fisheries Department. They manage the catching of fish and supply to markets.

#### **b) Private Fish Farms**

They produce the fish in their farms and supply the same to the market.

#### **a) Wholesalers**

They buy and sell the huge quantity of fish. They operate their business in assembly. To attract sellers, they extend shortterm loans to both producers and contractors on the pledge that loanees would sell the fish to them.

#### **b) Retailers**

They buy the fish in small lots and sell to ultimate consumers. Fish retailing is mostly done through shopkeepers. However, a number of hawkers and vendors sell fish by sitting at footpaths or wandering on bicycles.

### **Fish Supply to Markets**

The fish after harvesting/catching is degutted, graded, packed and transported to the market as detailed below:-

#### **a) Fish Catching**

The contractor and private fish farmers engage the fishermen on contract basis to catch the fish from public water areas and private fish farms. The fishermen generally operate in a

group and wages are paid in accordance with the quantity of fish caught either in shape of cash or kind.

**b) Degutting**

Degutting is the process performed after catching the fish. An incision is given to the fish to remove the gills and intestines. It increases the storage life of the fish.

**c) Grading**

The fish population is heterogeneous. It varies in respect of species as well as the degree of freshness. The rates vary by species and weight.

**d) Packing**

Fish is mostly packed with ice for handling and transportation. It is commonly packed in baskets and jute sacks/bags.

**c) Transportation**

Fish is a perishable commodity. Efficient transportation plays a vital role in the marketing of fish. Transportation is done by men, pack animals, motor vehicles and railways.