

*Puntius carnaticus* State Fish of Karnataka



#### **Govt of Karnataka**



Indian mackerel West Coast is called Mackerel Coast

# Department of Fisheries-Best Practices in Fisheries





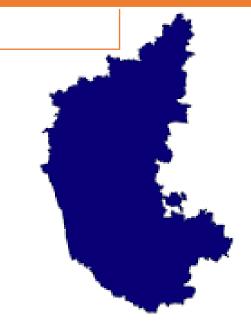
# **Fisheries Sector in Karnataka**

Fisheries is an important sector in the state and is blessed with both marine and inland resources offering immense opportunities for fisheries and aquaculture growth. The sector is making valuable contributions to the economic development of the state and has all the potentials to provide livelihood and nutritional security.

The contribution of the sector to Agricultural GDP is 2.38% and to Gross SGDP is about 0.34%.

A separate Fisheries Department was established in 1957 with the objective of overall development of fisheries and welfare of fishermen.

The position of Karnataka in Indian Fisheries is 5th in Marine and 7th in Inland.



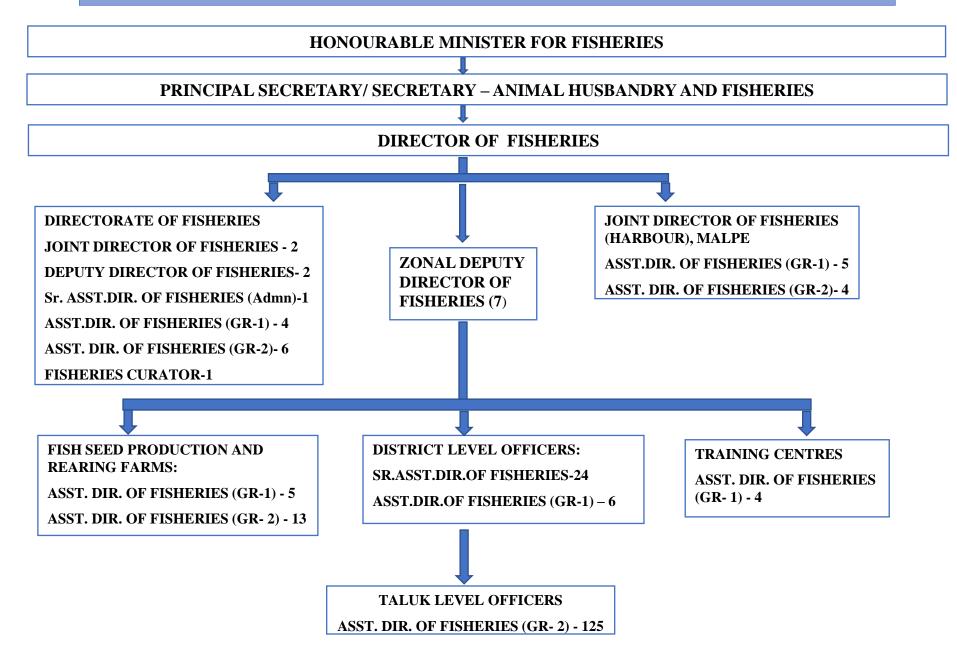
# Objectives of the Department

Increasing fish production

Improve the socioeconomic status of fisher-folk. Develop infrastructure for fish harvesting, landing, preserving, processing and marketing.

To adopt new technologies in fisheries and extend technical and scientific inputs to fishermen

### **DEPARTMENT'S ORGANISATIONAL STRUCTURE**



# **Marine Resources and infrastructure facilities in the State**

Coast length	<b>320.00 Km</b>
<b>Continental Shelf</b>	27,000 Sq Km
EEZ	87,000 Sq Km
Marine fish potential	4.25 lakh MT (Revised: 6.02 lakh MT)
Marine fishermen population	<b>3.31 lakh</b>
No of active fishermen	<b>1.59 lakh</b>
Fishing harbors	9
Fish landing centers	26
Fishermen cooperative societies	132

# **Inland Resources and infrastructure facilities**

Tanks	26423 (No), 2.93 lakh ha	
Reservoir & Area	83, 2.73 lakh ha	
Rivers	17, 5813 Km	
Inland fishermen population	6.53 lakh	
Active Fishermen	1.42 lakh	
Brackish water area	8000 Hectare	
Inland fish production potential	6.02 lakh M ton	
Fish sanctuaries	22	
Fish seed production & rearing farms	46 (16+30)	
Taluk level Nurseries	60	
Private Registered rearing centres	308	
Fishermen co operative societies	597	
State level federations	01	
Fishermen Training centres	04	











# Fish Production in Karnataka during 2018-19 to 2022-23

**Quantity (in lakh MT)** 

Year	Marine	Inland	Total
2018-19	3.89	1.98	5.87
2019-20	4.03	2.28	6.31
2020-21	3.47	2.51	5.98
2021-22	5.89	4.85	10.74
2022-23	7.30	4.95	12.25

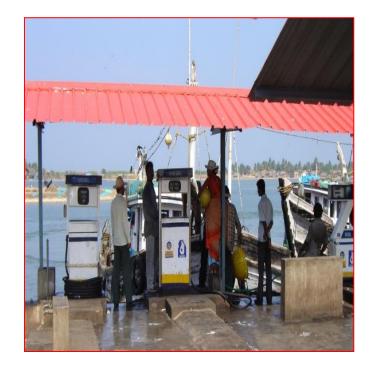
# **Exports from Karnataka**

Year	Quantity (in lakh MT)	Value (in crore rupess)		
2018-19	1.42	1891		
2019-20	0.96	1367		
2020-21	1.05	1546		
2021-22	0.93	1661		
2022-23	2.27	3761		
( Source: MPEDA Kochi)				

## **MARINE SECTOR - SCHEMES**

### **1. Reimbursement of sales tax on diesel used by fishing boats**

- ✓ Under the scheme, "Reimbursement of Sales Tax on Diesel for Fishing boats", state sales tax exempted diesel is provided to the Mechanized fishing boats at source.
- ✓ Average 3750 boats avail benefits from the scheme.(9000 Lx10 months)
- ✓ Annually 2.00 lakh KL diesel is provided under the scheme. State sales tax to the tune of Rs.350.00 crore is provided.
- ✓ Issuing of license and diesel passbook is done online through a module developed by NIC



### **2. Distribution of Kerosene to traditional boats**

- ✓ The dept now supplies industrial kerosene at a rebate of Rs.35.00/ltr.
- ✓ Maximum of 300 ltr kerosene is provided per month per boat for 10 fishing months
- $\checkmark$  8030 boats avail the subsidy under the scheme.



### **3. Subsidy for Replacement of Kerosene to Petrol engine**

- ✓ To discourage the dependency on Kerosene, the Dept has introduced a new scheme wherein Rs. 50,000/- is provided as subsidy for replacement of Kerosene to Petrol outboard engine.
- ✓ Annually a target of 4000 boats is fixed.
- ✓ It is anticipated that all the Kerosene engines will be replaced in 2 years



### 4. Installation of vessel tracking system on fishing vessels

- ✓ For communication and safety of man and material the GoI has introduced a scheme.
- ✓ 15,607 boats will be covered under the scheme in the state.
- ✓ TPC is Rs. 52.00 cr and Rs.22.00 cr will be borne by the state.



Under this scheme provision is made to provide subsidy @ Rs.1.75 per unit of the electricity consumed by the Ice plants subject to a maximum of Rs.3.50 lakh per ice plant.





### 4. Artificial Reefs (ARs):

- ✓ GoI has accorded approval for the establishment of 56 ARs along Karnataka coast for a Total cost of Rs. 17.36 Cr (CS: Rs. 10.41 Cr)
- ✓ Suitable coastal villages have been identified for deployment.
- ✓ Work order has been issued to KRIDL and construction of the structures is under progress.



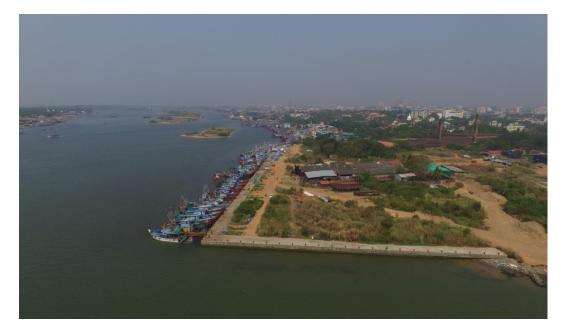
# **Infrastructure Development**

- **1. Construction of Fisheries Building**
- 2. Upgradation of fish farms
- **3.** Construction of Markets
- 4. Construction of harbours, Jetties and Fish landing centres
- 5. Construction and maintenance of link roads
- 6. Construction of break waters
- 7. Dredging of fishing harbours and landing centres
- 8. Other post harvest infrastructure facilities

#### **Construction of Fishing Harbours**



#### Malpe Fishing Harbour



#### Mangalore Fishing Harbour

#### **NABARD** assistance under **RIDF**



#### **Construction of Link Roads & Bridge at Kandige of Chelaiyur Grama panchayat**

### **Dredging of fishing harbours-Centrally Sponsored Scheme**



Dredging at Landing centres

#### **Construction and renovation of fisheries jetties and landing centres.**



#### Kodikanyana Landing centres



#### Hangarakatte Landing centres

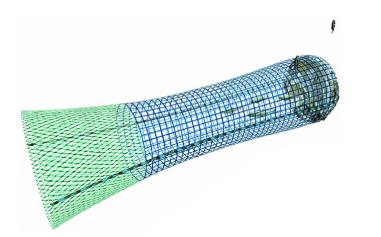
### **6.** Supply of Fishery Requisite kits

#### **Tank / reservoir/ riverine fishermen- Net and accessories**





### Marine fishermen- 35 mm square meshed nets in cod end of trawl boats





FRP coracle- fishermen to fish in deeper waters and ensure the safety to the life of fishermen fibreglass coracle and two oars







### 2. Fishermen Welfare scheme.

#### **A. Group Accident Insurance Scheme**

✓ Under the Centrally Sponsored Scheme, a sum of Rs.72.44 per fisherman has been paid to the Insurance Company towards insurance coverage of 80,099 lakh fishermen of the State. Under the scheme, insurance coverage is extended to the fishermen who are exposed to the hazards of natural calamities while fishing.

#### **B.** Savings cum Relief Scheme

- ✓ Under this Scheme, a total amount of Rs.1500 will be collected from each fisherman during fishing period and matching contribution of Rs. 1500 each by the State and Central Governments is given.
- ✓ Rs.4500 collected will be distributed during 3 lean months to the beneficiaries equally @ Rs. 1500 per month (June, July and August)

# 3. Reimbursement of differential interest to commercial banks

- ✓ Provision has been made to reimburse the difference of interest to the Commercial Banks and Regional Rural Banks providing loans to fishermen @ 2% interest up to Rs.50,000/- for fisheries activities.
- ✓ From 2018-19 provision has been made for women fishermen to avail loan upto Rs. 50,000 at 0% interest from commercial/rural regional banks. The interest amount will be reimbursed by Government.
- ✓ From 2022-23, the loan amount has been enhanced to Rs.
  3.00 lakh.

### **5. Distress relief fund**

- ✓ Distress relief fund was started in order to provide relief to fishermen & their dependents in case of death/permanent disability while fishing and loss of property.
- The relief amount provided from the distress relief fund is Rs.6,00,000/- in case of death.
  Partial / permanent Disability- Rs. 50,000- 1,00,000/- Medical expenses- 50% of loss or Rs. 1,20,000/- Loss of gear and craft- 50% of loss or Rs. 1,00,000/-

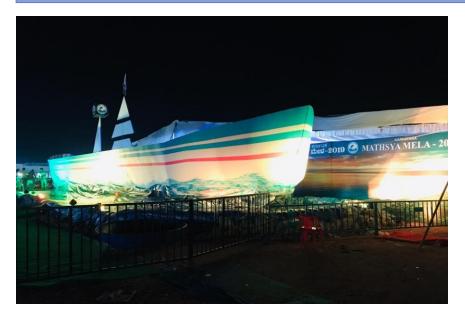


### 6. Matsya ashraya Scheme

- ✓ The State government has taken up Matsya ashraya scheme during 2006-07 to meet the increasing demand for the houses to fishermen.
- Under Matsya Ashraya scheme an assistance of Rs.1.20 lakh, Rs. 1.75 lakh and Rs. 2.00 lakh are given to General, SC/ST (Rural) and SC/ST(Urban) beneficiaries respectively.



### 7. Training and Exhibitions









### **INLAND SECTOR -SCHEMES**

**1. Assistance for development of Inland Fisheries** 

To increase the fish production and to boost fish culture in the water bodies of the State

A.Matsya Krishi Asha Kirana

**B. Inland Fish Farming Incentive scheme** 

**C.** Assistance for purchase of fish seed

**D.** Assistance for freshwater prawn and brackish water fish culture

### A.Matsya Krishi Asha Kirana

- ✓ Provision has been made to stock inland water bodies with 4000 advanced fingerlings/ ha and 2 tons of fish feed/ha at a total unit cost of Rs.54,000 per hectare area.
- ✓ 50% of the unit cost upto a maximum of Rs. 27000/ha is provided as subsidy.





### **B. Inland Fish Farming Incentive scheme**

- ✓ Fish seed stocking in water bodies leased to Fishermen Cooperative Societies free of cost.
- ✓ Total area of 10,000 hectare will be stocked @ 2,000 fish seeds per hectare
- ✓ Subsidy upto a maximum of Rs. 3.00 lakh/ FCS will be provided under this scheme



### **C.** Assistance for purchase of fish seed

- ✓ This scheme is to encourage purchase of good quality fish seed from the department owned farms.
- ✓ 50% subsidy subject to a maximum of Rs.5000/- to individual person and Rs.20000/- to Fishermen Co-operative Societies
- ✓ 50% subsidy with a maximum of Rs.25,000 to purchase fish seed by fish seed rearers



Total Fish seed production: 60.00 crore Estimated Requirement of seed for stocking: 50.00 crore Present stocking varies between 20 to 30 crores

### D. Assistance for freshwater prawn and brackishwater fish culture-

- ✓ This is a new scheme announced in budget for the year 2019-20.
- ✓ To encourage prawn and brackish water fish culture
- ✓ 50% subsidy subject to a maximum of Rs.50000/ha will be provided towards input cost (seed and feed cost) to take up prawn / brackish water fish culture in the water bodies of the state.
- $\checkmark$  Guidelines of the scheme is yet to be framed



### 2. Fish seed stocking in reservoirs

- ✓ Introduced by NFDB and later continued under the State sector scheme
- $\checkmark$  To enhance the fish production in the reservoirs
- ✓ Stocking of good quality, multi species advanced fish fingerlings



### 3. PMMSY- Integrated Development and management of Fisheries

- ✓ Central Government flagship programme
- ✓ Integrated development and management of fisheries
- ✓ To bring about a significant growth in the fisheries sector and socio economic development of fishermen
- ✓ Caters both Marine and Inland sector and has a boat to plate approach



### Matsyavahini

- Project has been launched to promote domestic fish marketing through KFDC, 300 Threewheeler e-vehicles are being deployed along with KFDC cold chain to effectively reach fish to inland areas.
- ✓ State has framed detailed guidelines for implementation of project. In the first phase 150 vehicles will be deployed in Bangalore City where licensees will be selected in DLC and operation has commenced.
- ✓ On Nov 21st Honorable Chief Minister of Karnataka handed over the vehicles to the beneficiaries



### 4. Establishment of North Karnataka Inland Fisheries Development centre

✓ North Karnataka has around 1.64 lakh hectare area reservoirs, 42,195 hectare area major tanks and 20,667 hectare area of gram panchayat tanks, rivers and canals that offers vast scope for development of inland fisheries.

✓ 'Nija Sharana Ambigara Chowdaiah North Karnataka Fisheries Development Agency (NKFDA)' has been established

✓ The main objectives of NKFDA are

- to formulate and implement local specific programmes for the integrated development of fisheries in North Karnataka
- to prepare the necessary project report and mobilize funds for the fisheries activities and implement them and to collaborate with fisheries education, research, extension, and development institutes and fishermen organizations

### 5. Tank fishery development

- ✓ Tank fishery development plays a strategic role in providing employment to rural folk.
- ✓ The fish produced by them provides income to their livelihood or additional income to them besides contributing to the nutritious food basket.
- ✓ The fishery rights of the tanks with achkut more than 40 ha vest with the fisheries department.
- ✓ The water bodies are disposed of either by lease or tender cum auction and licensing as per the comprehensive inland fisheries rights disposal policy-2014 introduced by the department.



#### 6. Cage Culture in Reservoirs/ brackishwater regions

- ✓ Under NMPS scheme cage culture was taken up in Krishnaraja Sagar reservoir by the Department of Fisheries.
- ✓ Under Blue revolution Scheme cage culture was taken up in Shivapura reservoir and Linganamakki reservoir.





# Million Metric Ton Fish Production in Karnataka

**Department of Fisheries** (Government of Karnataka)

#### **Best marine state award for 2022-23**





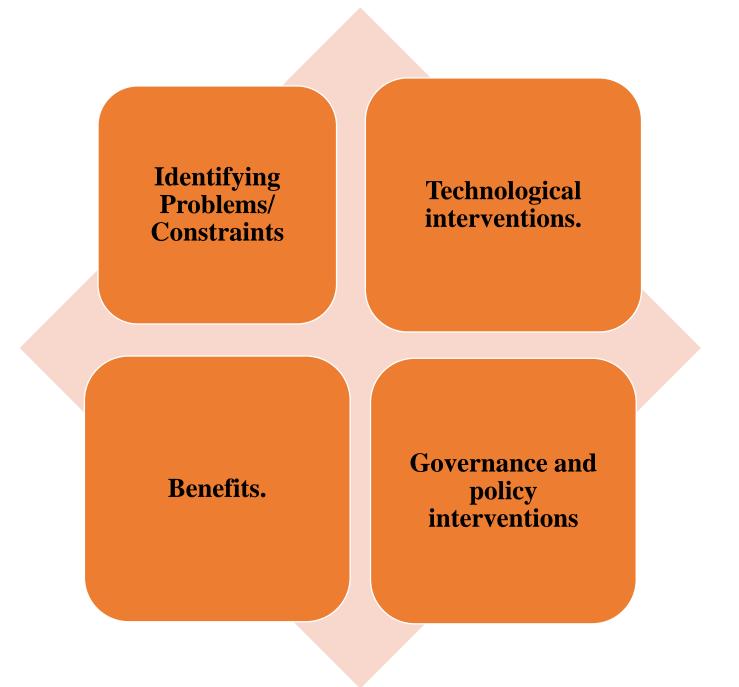
# **THANK YOU**

#### 7. Challenges

- ✓ Carrying capacity for sea cage culture and brackishwater cage culture
- $\checkmark$  Referral lab for seed certification
- ✓ Lack of manpower for checking seed quality
- ✓ Mariculture policy at GoI can give some direction in the state for policy preparation.
- ✓ Lack of manpower for verification of crew members who venture into the sea for fishing.
- ✓ Step taken: KMFRA- 1986 amendment of the act has been proposed and submitted to Govt for approval.



# Mission Million Ton Fish Production



- $\succ$  Poor fish production from the water bodies
- $\succ$  Policy limiting the fish stocking of water bodies to 2000/ ha.
- The water bodies of the state have varied productivity and water quality parameters. Hence standardization of fish stocking practices in the state is difficult
- > Non availability of quality and quantity of fish seed
- Lack of enthusiasm in the staff and fishers

#### 1. Increasing seed quantity and quality $% \left( {{{\left( {{{{\bf{n}}}} \right)}}} \right)$

- Seed rearing activity is initiated in peripheral tanks and subsidy is provided under inland fisheries development programme
- Free seed supply (advanced fingerlings) to fishermen co operative societies
- Stocking of advanced fish fingerlings in reservoirs under reservoir development programme.
- involving private entrepreneurs in the sector.
- Strengthening the Govt fish seed farms



• 2. Introducing species diversity to suit the various water resources









- 3. Increasing area of fish production
- Increase of fish culture in private ponds (nearly 1000 ha. new fish ponds have been constructed under PMMSY scheme and fish culture is taken up in these ponds.



#### • 4. Introducing new technology in fish culture

• Introduction of Biofloc and RAS fish culture system under PMMSY in the state culture system has moved from extensive to semi/ intensive culture methods











- 5. Taking up new areas for fish culture
- Fish culture has been taken up in cages in the selected reservoirs, brackishwater areas, creeks and seas.
- Implementation of Riverine ranching has further increased the fish production



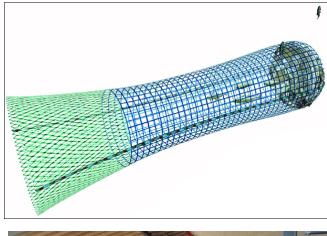
## **Technical interventions**

#### 6. Enhancing marine/ inland capture fish

• The Marine fish production was increased drastically (from 3.47 lakh MT to 5.89 lakh MT) using effective craft and gear













# 7. Improving the infrastructure facilities in the harbors and landing centers

• Fishing harbour and fish landing center infrastructure were developed influenced to increase marine fish production.





#### 8. Improving Marketing infrastructure

- Strengthening of marketing system through cold chain under PMMSY leads farmers to take more fish culture.
- Creating hygienic fish markets in various parts of the state.
- Improved forward and backward linkages to ensure the equilibrium of supply and demand is maintained and the fishers benefit from the project.





• 9. Improving extension activities by the Department, adequate training and effective hand holding





### **Governance and policy interventions**

- ✓ Decentralization of decision making to implement schemes effectively in the grass root level.
- The field officers were empowered with the power to decide the stocking rate of the water body based on past experience of fish production in the water body.
- ✓ Enforcing fishing ban season and gear selectivity to ensure fish survival and increasing fish catch.
- $\checkmark$  Awarding achievers and reprimanding laggards.
- $\checkmark$  Modifying policy to suit the current need and demands
- ✓ Introducing 24/7 helpline to provide information all round the clock to the fishers throughout the state and globe.







## **Benefits of the mission**

- ✤ Remarkable increase in fish production
- ✤ Increase in profit earned by the fishers
- ✤ Attracting more entrepreneurs to the sector
- ✤ Increase in confidence of the field staff and fishers to take up new challenges
- ✤ Better implementation of the schemes









