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**FISHERIES DEPARTMENT  
POLICY NOTE  
2019–20**

**1. INTRODUCTION**

Fisheries have emerged as an important sector contributing to the livelihood of fishers as well as food security of the State. Tamil Nadu is enriched with marine, brackish water and inland fishery resources amenable for capture and culture fisheries. Tamil Nadu is one of the pioneering States in India showing steady increase in fish production and optimum utilization of resources. The State is spearheading many innovative, developmental and welfare schemes in fisheries sector.

The Government of Tamil Nadu reiterates its commitment to fulfill the vision of the late Chief Minister of Tamil Nadu, Dr. J Jayalalithaa with the objectives of ensuring security and welfare of the fishermen of the State.

The Government of Tamil Nadu is committed to protect the traditional fishing rights of fishermen. The Government is taking earnest steps to safeguard life and property of our fishermen fishing in our traditional waters. To explore the underutilized deep sea fishery resources sustainably, Government is incentivising fishermen for diversifying themselves into deep sea fishing.

To enhance the quality and quantity of fish production in the State, the Government is developing infrastructure facilities such as fishing harbours/fish landing centres, marketing infrastructure, fish processing parks, seamless communication facilities, providing financial assistance for building fishing crafts and subsidised fuel to marine fishing crafts. To enhance the inland fish production of the state, the Government is promoting fish culture, fish seed production, fish seed rearing in both

Government and Private sector, cage culture, leasing of fishing rights of reservoirs and tanks.

India is the third largest producer of fish in the world and occupies the second position in aquaculture production. The total fish production of the country in 2017 – 18 was 12.60 million metric ton. Fish and fish products have presently emerged as the largest group in agricultural exports from India, with 13.77 lakh ton in terms of quantity and Rs. 45,106.89 crore in value. This accounts for around 10% of the total export of the country and about 20% of the agricultural exports. The contribution of fisheries sector to the Gross Domestic Product (GDP) of the nation is 0.91% and the share of fisheries in agricultural GDP (AgGDP) is 5.23%.

Tamil Nadu ranks 4<sup>th</sup> in total marine fish production of the country. The total fish production of Tamil Nadu is estimated at 6.75 lakh tons during 2018-19. The State exported

1.17 lakh tons of marine products and earned a foreign exchange of Rs.5,420.30 crore during 2017-18.

With increasing demand for fish, there is a need for augmenting the overall fish production of the State substantially from all the available water bodies. Aquaculture is emerging as a prominent activity for enhancing fish production and income generation in rural areas. Integration of fish culture with agriculture has proved to be an option for increasing the unit productivity of water.

## **2. FISHERIES POLICY PERSPECTIVE**

The Fisheries policy perspective of Government of Tamil Nadu is to augment the fish production, enhance the income of the fishers/fish farmers and to ensure safety and security of fishermen.

## **2.1 Vision**

*“Ensuring safety, security and wellbeing of the fishers of Tamil Nadu by providing avenues for safe fishing, sustainable exploitation, optimal utilization and management of fishery resources”.*

## **2.2 Mission**

To develop, manage, conserve and sustainable utilization of all aquatic resources for improving livelihoods, generating employment, food and nutritional security, economic prosperity and ensuring safety and security of fishers.

## **2.3 Major Policies**

The major Fisheries policies of the Government are as follows:

1. Protection of traditional fishing rights and welfare of fishermen of Tamil Nadu.

2. Improving the living standard of fishers by implementing various welfare schemes.
3. Enhancing the productivity and production of fish from the Inland, Brackish and Marine resources.
4. Creation and upgradation of infrastructure facilities such as Fishing Harbours (FH)/Fish Landing Centres (FLCs), cold chain, value addition, forward and backward linkages.
5. Generating additional rural employment opportunities through fish culture.
6. Bridging the gap between the demand and supply of fish for domestic consumption.
7. Harnessing the opportunity of expanding export market for high value fish and fishery products.
8. Conserving fishery resources, stock enhancement and management through enforcement of relevant Acts, Rules and Regulations.

9. Capacity building and skill upgradation, for Human Resource Development, Research & Development and technological intervention for Fisheries development.
10. Re-assessment of the fishery resources and their potential in the State of Tamil Nadu.
11. Ensuring transparency through e- Governance.

### **3. ADMINISTRATIVE SET UP**

The Department is headed by the Commissioner/Director of Fisheries. The Commissioner/Director of Fisheries is also the Managing Director of Tamil Nadu Fisheries Development Corporation Limited (TNFDC Ltd.), the Functional Registrar of all Fishermen Cooperative Societies including Tamil Nadu State Apex Fisheries Co-operative Federation Ltd. (TAFCOFED) and the Member Secretary of Tamil Nadu Fishermen Welfare Board (TNFWB).





The total staff strength of Fisheries Department is 1,670. The category-wise staff strength is given in Table 1:

**Table: 1**

**Category wise staff strength**

<b>Sl. No</b>	<b>Name of the Post.</b>	<b>No.of Posts</b>
1.	Additional Director of Fisheries	2
2.	Joint Director of Fisheries	4
3.	Deputy Director of Fisheries	11
4.	Deputy Director (Personnel)	1
5.	Deputy Director (Engineering)	1
6.	Financial Advisor & Chief Accounts Officer	1
7.	Asst. Director of Fisheries	47
8.	Personal Assistant	12
9.	Deputy Registrar	1
10.	Accounts Officer	1
11.	Inspector of Fisheries	165
12.	Cooperative Sub-Registrar	15
13.	Marine foreman	14
14.	Sub-Inspector of Fisheries	84
15.	Senior Inspector of Cooperative Societies	27
16.	Fishery Assistant	168
17.	Ministerial and field Staffs	1018
	<b>Total</b>	<b>1,572</b>

<b>Engineering Wing</b>		
1.	Chief Engineer	1
2.	Executive Engineer	5
3.	Assistant Executive Engineer	13
4.	Assistant Engineer	13
5.	Junior Engineer	17
6.	Senior Draughting Officer	1
7.	Draughting Officer	8
8.	Junior Draughting Officer	4
9.	Divisional Accountant	4
10.	Technical Assistant	23
11.	Ministerial and supporting staff	9
	<b>Total</b>	<b>98</b>
	<b>Grand Total</b>	<b>1,670</b>

#### **4. FISHERIES SECTOR IN TAMIL NADU - AN OVERVIEW**

Tamil Nadu is blessed with 1,076 km long coast line and 41,412 sq.km of continental shelf area with an Exclusive Economic Zone (EEZ) of 1.9 lakh sq. km, contributing to 5.13 lakh tons of marine fish production. This supports the livelihood of 10.29 lakh marine fishers. There are 5,798 mechanised and 41,530 traditional fishing crafts which are actively engaged in fishing. Tamil Nadu possesses 3.83 lakh ha. effective

inland water resources comprising reservoirs, major irrigation tanks, minor irrigation tanks, short seasonal tanks, ponds, rivers, backwaters and other water bodies. An estimated brackish water area of 56,000 ha. is under capture fisheries and an area of 6,236 ha. is under coastal aquaculture production, mainly shrimp aquaculture. The inland fisheries sector supports the livelihood of 2.35 lakh inland fishers of the State.

#### **4.1 Marine Fisheries**

Tamil Nadu has the second longest coastline in the country with a coastal length of 1,076 km spread across 13 coastal districts. An overview of the Marine Fisheries sector is given in Table 2:

**Table: 2**  
**Marine Fisheries Statistics- 2018-19**

Coastal length	1,076 km
Exclusive Economic Zone (EEZ)	1.9 lakh sq. km
Continental Shelf	41,412 sq. km
Coastal Districts	13

Fishing Villages	608
Marine Fisher folk Population (Projected)	10.29 lakh *
<b>Fishing Crafts Registered (online):</b> as on 02.07.2019	
1.Mechanised Fishing boats	5,798
2.Traditional Crafts (motorised and non- motorised)	41,530 (35,906+5,624)
<b>Infrastructural Facilities</b>	
Major Fishing Harbours	9 (Chennai, Thoothukudi, Nagapattinam, Colachel, Chinnamuttom, Mookaiyur, Poompuhar, Muttom (PPP), & Thengapattinam)
Medium Fishing Harbours	3 (Pazhayar, Mallipattinam and Cuddalore)
Harbours under construction	3 (Thiruvottriyurkuppam, Vellapallam & Tharangambadi)
Fish landing centres / Jetties	39
Fish Landing Points	254
Marine Fish Production 2018-19 (Provisional)	5.13 lakh ton*
Marine Products Export(2017-18)	Quantity: 1,16,664 MT ** Value: Rs.5,420.30 Crore

Source: \*Fisheries Statistics of Tamil Nadu, Fisheries Department

\*\*Marine Products Export Development Authority (MPEDA)

## 4.2 Inland Fisheries

The Inland fishery resources of Tamil Nadu comprises of fish grown in major reservoirs, large and small irrigation tanks etc. An overview of Inland Fisheries sector of the State is given in Table -3.

**Table: 3**  
**Inland Fisheries Statistics- 2018-19**

Inland Fishery Resources	3.83 lakh ha.
Reservoirs	62,015 ha.
Large irrigation and Short seasonal tanks	2,65,819 ha.
Brackish water area	56,000 ha.
Population of Inland fishers (projected)	2.35 lakh
<b><i>Inland Fisheries Infrastructure</i></b>	
<b><i>Fish Seed production centers</i></b>	
i) Government fish farms	11
ii) Private fish farms	49
<b><i>Fish seed rearing centres</i></b>	
i) Government fish farms	37
ii) Private fish farms	233
iii) TNFDC fish seed rearing farms	5
Inland Fish Production 2018-19 (provisional)	1.62 lakh tons.

### **4.3 Coastal Aquaculture and Brackish water Fisheries**

In Tamil Nadu, an estimated brackish water area of 56,000 ha. is available in the form of estuaries, backwaters and creeks. In order to utilise the untapped coastal fallow lands, the Government is undertaking resource mapping of brackish water land area suitable for aquaculture so as to create a road map for the coastal aquaculture development.

There are 1892 brackish water farms with a total extent of 3742 ha. registered under Coastal Aquaculture Authority. The seed requirement of the shrimp farms of the State is being catered by 63 Shrimp hatcheries. The presence of an Aquatic Quarantine facility established by Rajiv Gandhi Center for Aqua Culture (RGCA) in the Department land at Chennai is an added advantage to the development of this sector.

## **5. MAJOR ACTIVITIES OF THE DEPARTMENT**

The following are the major activities of the Fisheries Department:

- i. Implementing various welfare schemes
- ii. Regulation and enforcement of fisheries acts and rules
- iii. Conservation and management of fishery resources
- iv. Rescue and rehabilitation measures
- v. Ensuring fishermen safety at sea
- vi. Protection of traditional fishing rights of Tamil Nadu fishermen
- vii. Development of infrastructure facilities
- viii. Hygienic marketing of fish and fishery products and cold chain facilities
- ix. Development of inland fisheries and aquaculture
- x. Capacity building and skill development in fisheries sector
- xi. Outreach and extension activities
- xii. Management of Fisheries Co-operatives.



## **5.1 FISHERMEN WELFARE SCHEMES**

The Government guided by the principles of the late Hon'ble Chief Minister of Tamil Nadu, Dr. J Jayalalithaa always accord highest priority to improve the living standards of fishers in the State by implementing several welfare schemes.

In order to ensure that the benefits of welfare schemes reach the beneficiaries in the shortest span of time in a transparent manner, the Government is crediting various welfare assistance directly into the bank account of the individual beneficiaries through National Electronic Fund Transfer (NEFT).

The Department is in the process of implementing online enrollment of beneficiaries through Common Service Centers (CSC) for all the welfare schemes to ensure transparency, facilitate hassle free and timely disbursement of relief to the beneficiaries. During 2019-20, the National Fishermen Saving cum Relief scheme, Tamil Nadu Fisherwomen Savings cum Relief

scheme, Fishing Ban Period Relief, Lean Period Relief Assistance, supply of Subsidized Kerosene and Diesel and disbursement of all assistance under Fishermen Welfare Board will be done through online services.

The State Government has released a total amount of Rs.281.47 crore under various marine fishers welfare schemes implemented during 2018-19.

## **I. STATE SCHEMES**

### **5.1.1 Financial assistance of Rs.5000/- to Marine Fishermen Families during Fishing Ban Period**

In order to conserve the marine fishery resources, seasonal fishing ban is imposed every year since 2001. The fishing ban period is from April 15<sup>th</sup> to June 14<sup>th</sup> in East Coast region and June 1<sup>st</sup> to July 31<sup>st</sup> in the West Coast region. The Government is implementing a scheme for providing relief assistance of Rs. 5,000/- to each marine fishermen family in coastal districts to

mitigate their sufferings during fishing ban period.

During 2019-20 the Government has sanctioned an amount Rs.83.50 crore for disbursement of ban relief to marine fishermen families. As on 02.07.19, Rs.58.55 crore has been credited directly into the bank account of 1,17,115 marine fishermen families of 13 coastal districts through NEFT.

The scheme will be continued in the coming year also.

### **5.1.2 Special Allowance of Rs.5000/- to Marine Fishermen Families during Lean Fishing Season**

To alleviate the sufferings of the marine fishermen families during the lean fishing months, the Government is implementing a scheme for providing Special Allowance of Rs.5,000/- to each of the marine fishermen families in 13 coastal districts.

The Government has sanctioned an amount of Rs.82.50 crore during 2018-19 towards

disbursement of special allowance to marine fishermen families. As on 02.07.2019, Rs.81.05 crore has been credited directly into the bank accounts of 1,62,101 marine fishermen families of 13 coastal districts through National Electronic Fund Transfer (NEFT).

The scheme will be continued in the year 2019-20.

### **5.1.3 Savings-cum-Relief Scheme for Marine Fisherwomen**

This scheme is implemented as a State scheme for Marine Fisherwomen following the same pattern of assistance on par with the Centrally Sponsored Scheme for marine fishermen.

The Government sanctioned a relief amount of Rs.59.65 crore for disbursement to marine fisherwomen during 2018-19 at the rate of Rs.4500/- per beneficiary, out of which an amount of Rs.59.65 crore was disbursed to

1,98,894 fisherwomen of 13 coastal districts through National Electronic Fund Transfer (NEFT).

This scheme will be continued in the year 2019-20 as well.

#### **5.1.4 Supply of tax exempted High Speed Diesel (HSD) to fishermen**

The Government of Tamil Nadu provides tax exempted High Speed Diesel to mechanised fishing boats at the rate of 18,000 litres / craft / year and to motorised country crafts at the rate of 4,000 litres/ craft/ year registered with the Fisheries Department. The Government is in the process of implementing the scheme through Direct Benefit Transfer (DBT) system to the fishing boat owners during 2019-20.

#### **5.1.5 Supply of subsidised Industrial Kerosene to the Traditional Crafts**

The Government provides industrial kerosene at a subsidized cost of Rs.25/- per litre at the rate of 3,400 litres/ craft / year to the traditional fishing crafts of Thoothukudi,

Tirunelveli and Kanniyakumari districts. The Government is in the process of implementing the scheme through Direct Benefit Transfer (DBT) system to the fishing boat owners during 2019-20.

#### **5.1.6 Daily relief to Marine Fishermen apprehended by other countries**

The Government supports the families of fishermen who are apprehended by the neighboring countries while fishing by providing daily allowance of Rs.250/-per day to the family of the apprehended fishermen. The scheme is being implemented through the respective District Collectors for providing immediate relief. A sum of Rs.12.79 lakh has been released during 2018-19 as relief to 78 apprehended fishermen families.

This scheme will be continued during 2019-20.

### **5.1.7 Daily relief to the Families of Missing Fishermen**

The State Government is providing daily allowance of Rs.250/-per day (i.e. Rs. 7,500/- per month) to the families of fishermen who went missing while fishing at sea. During 2018-19, a sum of Rs.14.35 lakh has been released as relief to the 22 missing fishermen families.

This scheme will be continued during 2019-20 as well.

### **5.1.8 Relief to the Families of Deceased / Injured Fishermen due to Shooting incidents by Sri Lankan Navy and others**

The fishermen of coastal districts, who fish in their traditional waters of the Palk Bay are apprehended / harassed and sometimes even shot at, by the Sri Lankan Navy.

The Government is providing an ex-gratia payment of Rs.3 lakh from the Hon'ble Chief Minister's Public Relief Fund(CMPRF) to help the

family of fishermen who die as a result of such an eventuality. In case, the deceased fisherman being the sole breadwinner of the family, an ex-gratia amount of Rs.5 lakh is provided. If the fishermen sustains major and minor injuries, an ex-gratia amount of Rs. 50,000/- and Rs. 20,000/- is provided respectively.

A fisherman of Ramanathapuram district died due to an accident at Sea by Sri Lankan naval boat on 13.01.2019. The Hon'ble chief Minister of Tamil Nadu has provided Rs.5 lakh from CMPRF to the family of the deceased fisherman.

#### **5.1.9. Corpus fund for Extending Financial Assistance for pursuing Higher Education to the Children of Missing /Deceased Fishermen due to Shooting while fishing**

A Corpus fund of Rs.25 lakh has been created in Tamil Nadu Fishermen Welfare Board to meet the full expenses for the higher studies of



the children of the families of missing / deceased fishermen, due to shooting incidents.

The scheme will be continued during 2019-20.

#### **5.1.10. Providing 50% Subsidy for Fishermen to Procure New Tuna Long liner-cum-Gill netter Boats.**

In order to reduce the fishing pressure on the coastal fishery resources for sustainable fisheries and to support the fishers to harvest the unexploited/ underexploited oceanic fishery resources, the Hon'ble late Chief Minister Dr.J. Jayalalithaa announced a pioneering scheme of 'Providing 50% subsidy for fishermen to procure new Tuna Long liner-cum-Gill netter boats' for the first time in the Country during 2014-15. The unit cost of this boat is Rs.60 lakh of which 50% of the unit cost subject to a maximum of Rs.30 lakh is provided as subsidy.

Under this scheme, work orders have been issued for construction of 171 Tuna long liner boats and an amount of Rs.13.20 crore has been released as subsidy. Presently, construction of 42 boats have been completed and 15 boats are under various stages of construction.

## **II CENTRALLY SPONSORED SCHEMES**

### **5.1.11 National Fishermen Savings-cum-Relief Scheme (NFSRS) for Marine Fishermen**

The Government has enhanced the relief under National Fishermen Savings-cum-Relief Scheme for marine fishermen from Rs.2,700/- to Rs.4,500/- by suitably increasing the State contribution. The Government sanctioned a relief amount of Rs.62.43 crore for disbursement to marine fishermen during 2018-19, out of which an amount of Rs. 62.43 crore was disbursed to 2,08,115 fishermen of 13 coastal districts through National Electronic Fund Transfer (NEFT).

This scheme will be continued during 2019-20.

### **5.1.12 Group Accident Insurance Scheme for Fisher folk**

The Government of India under “Pradhan Mantri Suraksha Beema Yojana” (PMSBY) is providing insurance coverage to fishers and is being implemented through FISHCOPFED (National Federation of Fishers Cooperatives Ltd., New Delhi), for accidental death, missing, permanent / partial disability for fishers. The premium amount of Rs.12 is equally shared between Central and State Governments. In the event of accidental death, missing and permanent disability a relief assistance of Rs.2,00,000/- is provided. In the event of partial disability, relief assistance of Rs.1,00,000/- is provided. In addition to this, Special Contingency Plan (SCP) for the coverage of Rs.10,000/- towards hospitalisation expenses is also being implemented by paying an additional premium of Rs.3.77 / person which is equally shared by Central and State Governments from the year 2019-20.

A sum of Rs.40.719 lakh has been paid to FISHCOPFED as State share towards insurance premium covering 5,24,054 fishers for the year 2019-20.

This is an ongoing scheme.

### **5.1.13 Motorisation of Traditional Crafts**

During the year 2018-19 with National Agriculture Development Programme (NADP) subsidy assistance, 419 number of Out Board Motors (OBM) / In Board Engines (IBE) at a total cost of Rs.2 crore have been supplied to the traditional crafts fishermen. During 2019-20, 2600 number of Out Board Motors (OBM) / In Board Engines (IBE) will be supplied to the traditional crafts fishermen with 40% subsidy subject to a maximum of Rs.48,000/- per unit under CSS- Blue Revolution scheme.

#### **5.1.14. Subsidy Assistance for Diversification of Trawl Fishing in Palk Bay Districts to Deep Sea Fishing**

Fishing by bottom trawlers in the Palk Bay has been receiving high level of attention as Tamil Nadu fishermen are often arrested while fishing in their traditional waters. The prolonged incarceration of our fishermen and detention of their fishing boats by the Sri Lankan Government is causing a sense of anxiety and insecurity among the fishermen community of Tamil Nadu as a whole. To overcome this issue, it has been decided to extend 70% assistance to the fishermen for diversification of trawl fishing boats from Palk Bay into Deep Sea fishing boats.

The unit cost is Rs.80 lakh per boat with subsidy assistance of 50% from Government of India, 20% from Government of Tamil Nadu, 10% beneficiary contribution and the balance 20% shall be met out from Institutional financing.

The Government has accorded financial sanction for Rs.286 crore (Rs.200 crore by the Government of India and Rs.86 crore by the State Government) for the diversification of 500 boats in the first phase.

Decision to Enroll for Replacement (DER) has been issued to 411 fishermen and tripartite agreements were signed by 64 beneficiaries. Presently, constructions of 6 deep sea fishing vessels have been completed and are under successful operation while 47 boats are under various stages of construction.

**5.1.15. Subsidy assistance for construction of FRP boats upto 10m OAL including Engines , Nets & Insulated Ice Boxes as a replacement of Traditional/ Wooden Boats**

Under CSS-Blue Revolution scheme Government of India has accorded administrative approval for the procurement of FRP boats upto 10m OAL including nets and insulated ice boxes as a replacement of traditional /wooden boats, at

a total cost of Rs.8.50 crore to the fishermen of Tamil Nadu .

Under this scheme, 40% subsidy assistance to a maximum of Rs.1.70 lakh per boat is being provided. 200 beneficiaries will be benefitted under this scheme during 2019-20.

## **5.2 Regulation and Enforcement**

### **5.2.1 Online Registration of Fishing Vessels**

For ensuring coastal security, a scheme of “Online registration of fishing vessels” has been introduced and implemented at a cost of Rs.1.33 crore in Tamil Nadu. A total of 5,798 mechanised fishing boats, 35,906 motorised and 5624 non-motorised traditional crafts have been registered online as on 02.07.2019.

### **5.2.2 Issuance of Biometric Identity Cards to Marine Fishermen**

The Government of India introduced a Central Sector Scheme for “Issuance of Biometric Identity Cards to marine fishermen” to ensure

coastal security in the aftermath of 26.11.2008 Mumbai terrorist attack. A sum of Rs.1.16 crore was allocated for this purpose to Tamil Nadu. Under this scheme, 1,86,512 Biometric ID cards have been issued to the marine fishermen.

### **5.2.3 Issuance of Biometric Identity Cards to Marine Fisherwomen**

The Government has accorded sanction to issue biometric identity cards to marine fisherwomen as well. Under this scheme, 1,62,262 cards have been issued to the marine fisherwomen.

### **5.3 Conservation and Management of Fishery Resources**

Imposing seasonal fishing ban, stock enhancement, sea ranching programme, habitat development like installation of artificial reefs and diversified fishing methods are some of the conservation/ stock enhancement measures, being adopted by the Fisheries Department.



Fisheries sector is being managed effectively with an Eco system approach with participatory approach following co-management principles. This helps conserve the fisheries resources effectively with the involvement of stake holders.

### **5.3.1 Uniform Fishing Ban**

In order to conserve the marine fishery resources, seasonal fishing ban is imposed every year since 2001. The fishing ban period has been increased from 45 days to 61 days from 2017 (i.e. from April 15<sup>th</sup> to June 14<sup>th</sup> in East Coast region and June 1<sup>st</sup> to July 31<sup>st</sup> in the West Coast region).

## **5.4 Marketing of Fish and Fishery Products**

### **5.4.1 Promotion of Domestic Fish Marketing**

The Tamil Nadu Fisheries Development Corporation Limited (TNFDC) and Tamil Nadu State Apex Fisheries Cooperative Federation Limited (TAFCOFED) are actively engaged in

domestic fish marketing at an affordable price to the consumers. Chain of fish retail outlets including mobile units are being operated by both TNFDC and TAFCOFED. TNFDC is doing online fish marketing in Chennai city through its website [www.meengal.com](http://www.meengal.com). Similar new initiatives will also be continued during the current year.

#### **5.4.2 Modernization of Fish Markets**

Fish markets are being established/renovated in 19 places with the assistance from National Fisheries Development Board (NFDB) and State Government, with modern hygienic handling facilities for supplying good quality fish to the consumers and to ensure fair and remunerative price to the fishers for their produce.

The NFDB subsidy amount to a tune of Rs.5.21 crore and the State Government share amount of Rs.2.99 crore has been released to the Civic Bodies/Municipal Corporations and the work is under progress.

### **5.4.3. Quality Control and Traceability of Fishery Products.**

The Government is undertaking measures to improve the infrastructure facilities, value chain and other important attributes of fish marketing to ensure that producers get better value for their catches and consumers get high quality fish. For better quality control and to ensure traceability of products to meet international standards for getting maximum value for fishery products, the Government will take steps to integrate with food quality standards/bench marks prescribed by national and international agencies.

The Department of Fisheries is conducting regular awareness and sensitisation programmes to fishermen on hygienic handling, on board cleanliness, maintenance of fish landing infrastructures, fish markets etc.

### **5.4.4. Fish Consumption Pattern of the State**

The total fish production of the State is 6.75 lakh ton (2018-19) of which 5.58 lakh ton of

fish is consumed domestically and 1.17 lakh ton of fish and fish products are exported. Among domestic consumption, 4.79 lakh ton of fish is consumed as fresh, 0.52 lakh ton are consumed as dried and salted form and 0.27 lakh ton of fish is used to produce byproduct. The fish processing and marketing facilities of the State includes 495 fish markets, 8 chilled storage units, 75 fish processing plants and 77 cold storage facilities.

## **5.5 Disaster preparedness, Rescue and Rehabilitation Measures**

### **5.5.1. Disaster preparedness**

The Department of Fisheries has initiated the following steps to ensure the safety and security of fishermen at times of adverse weather conditions

- a. Dissemination of weather information to fishers
- b. Central Control Room has been formed at the Directorate of Fisheries and is functioning round the clock with all infrastructural

facilities and a dedicated telephone line No.044-24341757. This control room also coordinates regularly with the Coast Guard / Coastal Security Group / Navy.

- c. Fishermen are also advised not to venture into sea and also instructed to ensure safe berthing of their boats during adverse weather condition.

Due to the efforts taken by the Government, no loss of life is reported and minimal damages to the assets has occurred during recent disasters that occurred in the state.

#### **5.5.2. Relief measures to the victims of "Gaja" cyclone**

The severe cyclone "Gaja" made its land fall between Nagapattinam and Vedaranyam on 16.11.2018, devastated the coastal districts of Nagapattinam, Thanjavur, Thiruvarur and Pudukkottai inflicting immense damages to the fishing boats, fishing implements, fishermen

houses and fisheries infrastructures. However no loss of life has been reported among fishers due to the precautionary measures taken by the Government.

The Government has released a total sum of Rs.53.71 crore under SDRF and State funds towards the relief assistance to 195 fully damaged mechanized fishing boats, 1429 number of partially damaged mechanized fishing boats, 1051 number of fully damaged FRP vallams, 2942 numbers of partially damaged FRP vallams, 6157 numbers of engines and 10648 numbers of net, so as to enable the affected fishermen to create fishing assets and resume their fishing operations for sustaining their livelihood. Considering the plight of the affected fishermen, the Hon'ble Chief Minister of Tamil Nadu has made an announcement to enhance the relief assistance to fully damaged FRP vallam with nets from Rs.85,000/- to Rs.1,50,000/-.

Further, the Government changed the procedure of maintaining the relief amount of fully damaged boats in joint bank accounts and has released a total sum of Rs.25.42 crore directly to the owner's bank account whose boats were fully damaged enabling them to create the asset without any hurdles.

The Government also sanctioned Rs.36.5 lakh towards expenditure for retrieval of boats which were thrown into faraway places, buried in sand and entangled in bushes along the shore.

### **5.5.3. "Ockhi" Cyclone - Government initiatives towards mitigation**

The severe cyclonic storm "Ockhi" which hit the Kanniyakumari coast on 30.11.2017 caused severe damages to the deep sea fishing boats that ventured for multiday fishing from Kanniyakumari district. The Government has released a sum of Rs 40.08 crore to 27 families of

fishermen who died and 177 families of missing fishermen who were construed as dead due to Ockhi cyclone. Government has also released Rs.8.44 crore as relief assistance for the boats which were damaged during the cyclone.

159 legal heirs of the deceased / missing fishermen were given employment orders in various Government organizations subject to eligibility and qualification.

Work orders have been issued to 17 fishermen families who lost their fishing boats in "Ockhi" cyclone under the scheme of construction of Gill Netters cum long liners with 50 percent subsidy at a total cost Rs.60 lakh per boat.

#### **5.5.4. Relief assistance to fishermen affected due to Oil Spill in the Coastal areas of Thiruvallur, Chennai and Kanchipuram Districts**

Two merchant ships met with a collision off Kamarajar Port, Ennore on 28.01.2017. Due to this accident, the oil spilled out from ships and



spread along the coast of Thiruvallur, Chennai and Kanchipuram districts. The fishermen of these three districts were subjected to hardship due to loss of their livelihood.

The Government has sanctioned an interim relief assistance of Rs.15 crore to 30,000 fishermen families at the rate of Rs. 5,000/- per family.

Further, a fish market with other marketing facilities will be constructed at Ennore Mugathuvarakuppam in Thiruvallur District with the available amount of Rs.75 lakh released under Corporate Social Responsibility (CSR) fund.

The sum of Rs.131 crore received from the shipping companies were disbursed to the various categories of affected fishermen belonging to Thiruvallur, Chennai and Kanchipuram districts. Besides, artificial reefs in 30 places will be deployed during 2019-20 at a total cost of Rs.10 crore from the restoration funds received from oil companies.

### **5.5.5. Revolving Fund**

The Government of Tamil Nadu has introduced a new scheme creating Revolving Fund for providing immediate relief assistance to the fishermen whose boats/ fishing implements/ houses damaged due to unforeseen circumstances and sanctioned a sum of Rs.10 lakh each to the 13 coastal Districts totaling to an amount of Rs.1.30 crore towards providing immediate relief assistance to the affected fishermen.

For the year 2018-19, a sum of Rs.26.49 lakh has been released as relief to the fishing boats damaged due to unforeseen situation.

This scheme will be continued in 2019-20 as well.

## **5.6. Measures for communication and safety of fishermen at sea**

### **5.6.1. Providing “Transponders”:**

The Government of India, through ISRO (Indian Space Research Organisation) have

developed Transponders as a means of communication and tracking system for deep sea going fishermen. This is a satellite based system which will help monitoring the fishing vessels and render assistance at the time of distress in deep sea up to 200 Nautical Miles. 507 mechanised fishing boats of Tamil Nadu from Chennai, Cuddalore, Nagapattinam, Thoothukudi and Kanniyakumari districts have been fitted with transponders for conducting trials. Based on the efficacy of the transponders, installation of transponders will be extended to all the mechanized fishing boats operating in Tamil Nadu.

#### **5.6.2. Providing Satellite Phones and “NaVIC”:**

The Government has sanctioned Rs.3.10 crore towards procurement and supply of 2 units of satellite phone, 3 units of NaVIC Message Receiver and 2 units of NAVTEX

communication equipments to 80 clusters of boats engaged in deep sea fishing under 100% subsidy assistance.

Apart from this, 21 satellite phones, one each have been provided for Chief Secretary's Control room, Additional Chief Secretary/Commissioner of Revenue Administration, Commissioner(Disaster Management), Director of Fisheries and 4 Harbour Management Committees of Kanniyakumari, Thoothukudi, Nagapattinam, Chennai as well as for the Tamil Nadu Disaster Risk Reduction Agency (TNDRRA) in 13 Coastal District Collectorates. Installation of communication equipments in the deep sea fishing boats are in progress.

### **5.6.3. Launching of WebGIS base Mobile app: "Thoondil"**

The Department of Fisheries in association with the National Centre for Coastal Research (NCCR), Ministry of Earth Sciences (MoES), Government of India, launched a Mobile and web based application "THOONDIL" WebGIS based

Decision Support System on 15.11.2018 to ensure the safety and security of the fishermen by monitoring the movements of fishing vessels and registering the crews venturing for fishing.

“THOONDIL” - WebGIS based Decision Support System is developed to assist the State administration and equip the fishermen by dispensing vital information on real time positioning, trip records, navigation to safe locations, facility to mark fishing grounds, Potential Fishing Zones (PFZ) from INCOIS, details on weather and evolving weather systems, information on Cyclones / heavy rain / high tidal waves which can be used by the fishermen at sea to ensure their own safety.

#### **5.6.4. Providing Wireless communication networking facilities**

Under the FIMSUL II project, “Providing Wireless communication facilities to ensure safety of Tamil Nadu Marine Fishermen” at a cost of Rs.66.14 crore has been sanctioned.

Establishing networking facilities throughout the coastal belt of Tamil Nadu covering all the 13 districts is essential for effective functioning of VHF equipment. In this regard tower facilities has been established covering the 13 coastal districts of Tamil Nadu. New 100 metre tower construction has been entrusted to BSNL in 7 places (Pulicat in Thiruvallur district, Nemmeli in Kancheepuram district, Parangipettai in Cuddalore district, Kodiakarai in Nagapattinam district, Kattumavadi in Pudukkottai district, Vembar in Thoothukudi district, Uvari in Tirunelveli district). Among these, construction of 6 towers has been completed and put into use. One tower at Kodiakarai, Nagapattinam district was damaged in GAJA Cyclone and an alternative BSNL Tower has been arranged for providing communication. The reconstruction of Kodiakarai Tower is in progress.

In addition, 7 BSNL towers (Chennai Fishing Harbour in Chennai district, Marakanam in Villupuram district, Kohlas nagar in Puduchery

district, Kathanchavadi in Nagapattinam district, Kayalpattinam in Thoothukudi district, Muttom and Chinnamuttom in Kanniyakumari district) and one police tower (Nagapattinam in Nagapattinam district) have been taken on rental basis and communication facilities provided to fishermen.

Control rooms have been established in the above 15 places with installation of shore station equipments for effective communication between shore station and fishing boats inside the sea. Fisheries department is providing information regarding weather warning and other important messages to fishermen through the control rooms.

A Central control room has been established at the Directorate of Fisheries, Chennai.

Fishermen have been provided with 17539 nos of VHF sets among which 15004 Nos of 5 watt hand held VHF sets provided to motorized fishing crafts at 100% subsidy and 2535 Nos of 25 watt VHF boat sets provided to mechanized fishing crafts at 75% subsidy.

### **5.6.5. Providing Inflatable Rubber boats**

The Government for immediate rescue operation during flood situation has provided 30 Inflatable rubber boats to Chennai, Kanchipuram, Cuddalore, Nagapattinam and Kanniyakumari districts at a cost of Rs. 37.20 lakh.

## **5.7 Protection of traditional fishing rights of Tamil Nadu fishermen.**

### **5.7.1 Retrieval of Katchatheevu:- Issues and Status**

Retrieval of “Katchatheevu” back to India and restoration of the traditional fishing rights of Indian fishermen in the Palk Bay area, are the topmost agenda of the Government of Tamil Nadu.

An unanimous resolution was passed in the Tamil Nadu Legislative Assembly in 2011 to implead the Revenue Department in the Writ Petition W.P. (Civil) No.561/2008, filed before the Supreme Court of India in 2008, by late Hon'ble Chief Minister Dr. J. Jayalalithaa, in her individual



capacity for retrieval of Katchatheevu. Consequently an 'Implead Petition' was filed by the Revenue Department in the above writ petition and Government of Tamil Nadu impleaded itself in this case.

Further, the Government unanimously passed another resolution in the Tamil Nadu Legislative Assembly on 03.05.2013, urging the Government of India to retrieve Katchatheevu. The Government unanimously passed another resolution in the Tamil Nadu Legislative Assembly on 05.12.2014, urging the Government of India to retrieve Katchatheevu to restore the traditional fishing rights of the fishermen of Tamil Nadu.

### **5.7.2 Efforts taken by Government to release of Tamil Nadu fishermen and their fishing boats and to prevent harassment by Sri Lankan navy**

The Government of Tamil Nadu has determined to ensure that the traditional fishing rights of our fishermen which have been

continuously enjoyed by them since time immemorial are well protected. With a deep sense of concern on the repeated incidents of attack, harassment and apprehension of Tamil Nadu fishermen by the Sri Lankan Navy and prolonged incarceration of our innocent fishermen in Sri Lankan jails, the Hon'ble Chief Minister of Tamil Nadu has written many letters to the Hon'ble Prime Minister of India bringing the above incidents to his notice for remedial action through diplomatic channels.

The Hon'ble Chief Minister of Tamil Nadu has constantly demanded the Government of India to decisively use all available diplomatic channels to secure the immediate release of apprehended fishermen of Tamil Nadu and also to prevent the recurrence of such incidents.

During 2018, 156 fishermen apprehended by Sri Lankan Navy were released and repatriated and 26 salvageable fishing boats were brought back.

During 2019, 100 fishermen apprehended by Sri Lankan Navy were released and repatriated. 36 salvageable fishing boats were brought back. Efforts are also being taken to release the remaining 5 fishermen and 33 fishing boats detained by the Sri Lankan Government.

### **5.7.3 Fishermen level talks**

It was agreed in principle in the Inter-Ministerial Meetings and 4<sup>th</sup> Joint Working Group Meeting held in January 2012, that the discussions between the fishermen of India and Sri Lanka on solving the disputes in fishing in the Palk Bay region should be encouraged and that the decisions arrived at there by mutual consensus should be placed before the JWG for further action. In view of the sentiments and desire of the fishermen community of Tamil Nadu to hold talks with the fishermen of Sri Lanka to sort out the day-to-day issues faced by them while fishing in the Palk Bay and in the interest of

keeping a channel of communication open between the fishermen communities of both countries, the Government of Tamil Nadu so far facilitated four rounds of Fishermen level talks.

#### **5.7.4 India-Sri Lanka Joint Working Group on Fisheries**

So far 3 rounds of India and Sri Lanka Joint Working Group meetings have been conducted. During these meetings the issue of release and repatriation of Tamil Nadu fishermen and their fishing boats and fishing implements apprehended by Sri Lankan Navy were reiterated.

#### **5.8 Development of Fisheries Infrastructure**

The Government has been taking earnest steps for establishing shore infrastructural facilities with funding support from various sources. Facilities for hygienic handling of fishes onshore are established to ensure the supply of quality fish to the consumers. This in turn results in enhanced export values and better realization for the fishermen.

### **5.8.1 Construction of Fishing Harbour at Poompuhar, Nagapattinam District**

A Fishing Harbour at Poompuhar in Nagapattinam district is being constructed at a cost of Rs.148 crore under Centrally Sponsored Scheme. The construction of Southern Main Breakwater up to 1100m and Northern Leeward Breakwater up to 390m and Diaphragm wall is completed. Landside facilities are nearing completion.

### **5.8.2. Construction of Fishing Harbour at Mookaiyur, Ramanathapuram District**

The Government of India accorded the administrative approval for the reconstruction of Fishing Harbour at Mookaiyur in Ramanathapuram District at an estimated cost of Rs.113.90 crore equally shared between Centre and State. The development of this harbour is aimed at decongesting the fishing boats in the Palk Bay.

This harbour has been established with the infrastructure facilities such as breakwater, wharf,

fish auction hall, protection wall, drying platform, net mending centre and other infrastructure facilities.

### **5.8.3. Construction of Fishing Harbour at Vellapallam in Nagapattinam District**

Based on the Techno Economic Feasibility and Detailed Project Report, a fishing harbour with modern facilities will be established at an estimated cost of Rs.100 crore at Vellapallam Village of Nagapattinam District for which the Government has accorded administrative sanction under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) and work order has been issued.

### **5.8.4. Construction of Fishing Harbour at Tharangampadi in Nagapattinam District**

A fishing harbour at Tharangampadi, Nagapattinam District will be established at a cost of Rs.120 crore for which the Government has accorded administrative sanction under Fisheries

and Aquaculture Infrastructure Development Fund (FIDF) and work order has been issued.

#### **5.8.5 Construction of Tuna Fishing Harbour at Thiruvottriyurkuppam in Thiruvallur District**

Based on the detailed project proposal for the construction of Tuna Fishing Harbour at Thiruvottriyurkuppam in Thiruvallur District, the Government has accorded administrative sanction for Rs.200 crore under FIDF and work order has been issued.

#### **5.8.6 Development of Fish Landing Centres and Stabilisation of Groynes**

The Government has accorded administrative sanction for the Construction of Fish Landing Centre at Kunthukal in Ramanathapuram District at a cost of Rs.70 crore with the financial assistance from central Government and NABARD under RIDF. About 60% of the work has been completed and further works are under progress.

The Government has accorded administrative sanction of Rs.29.50 crore for the construction of Fish Landing Centres at Vembar in Thoothukudi District, Kodiakarai, Chinnangudi, Kameshwaram, Pushpavanam in Nagapattinam District, Thazhanguda in Cuddalore District, Sulerikattukuppam in Kanchipuram District, Kattumavadi and Ponnagaram in Pudukottai District with financial assistance of NABARD under RIDF XXIII. All the Fish Landing Centre works have been completed except at Chinnangudi in Nagapattinam.

Further, the Government accorded administrative sanction for Rs.11 crore for the construction of a Fish Landing Centre at Kurumbanai and Rs.4 crore for stabilisation of Groynes at Kadiyapattinam in Kanniyakumari District. The work at Kadiyapattinam has been completed and the work is in progress at Kurumbanai.



### **5.8.7 Construction of Fish Landing Centres under Tsunami Rehabilitation Programme**

The Government has sanctioned a total sum of Rs.49.97 crore for the construction of ten new fish landing centres (FLC) at various coastal villages. Among these, construction of 8 Fish Landing Centres have been completed and construction is in progress at Periyamangodu and Annamalaicherry in Tiruvallur district.

### **5.8.8 Construction of 3 Fish Landing Centres in Kanniyakumari District**

The Government has accorded administrative and financial sanction for Rs. 12 crore for the construction of Fish landing centres at three locations namely, Pozhikarai, Kesavanputhenthurai and Pallamthurai in Kanniyakumari District at a cost of Rs.4 crore each, to cater the needs of fishermen and the works are under progress.

### **5.8.9. Construction of short groynes at Neerodi, Marthandamthurai and Vallavilai in Kanniyakumari District.**

The Government has accorded administrative sanction for the Construction of short groynes at Neerodi, Marthandamthurai and Vallavilai in Kanniyakumari District at a cost of Rs.116 crore under the funding of Fisheries and Aquaculture Infrastructure Development Fund (FIDF) and work order has been issued.

### **5.8.10. Permanent Stability of Barmouth with Training wall at Pulicat Lake in Thiruvallur District**

The Government has accorded administrative approval and financial sanction for Rs.40 lakh for the preparation of Techno-Economic Feasibility Report and for conducting the model studies for the permanent stability of bar mouth with training wall at Pulicat lake in Thiruvallur District. The Indian Institute of Technology (IIT), Madras has prepared Detailed

Project Report. The Environment Impact Assessment (EIA) report is prepared by the consultant and applied for SEIAA clearance.

Considering the difficulties faced by the fishermen of 25 fishing villages in and around Pulicat lake to venture into sea for fishing, the Government has accorded administrative sanction for Rs.1.50 crore towards temporary opening of barmouth using dredger. The dredging work is under progress.

#### **5.8.11.Dredging of Fishing Harbours, Fish Landing Centres and Bar mouths**

In accordance with the announcement of the Hon'ble Chief Minister under Rule 110 made in the Legislative Assembly, dredging works at fishing harbour basins at Nagapattinam, Pazhayar and Cuddalore, fish landing centre basins at Thirumullaivasal and Nagoor, bar mouth of Vettar river in Nagapattinam district and Vellar river in Cuddalore district have been completed at a total cost of Rs.17.80 crore.

### **5.8.12. Pilot Project on establishing Geo-Synthetic Tubes for Coastal Protection**

NIOT has developed a technique to protect the coast from sea erosion by establishing submerged dykes made up of sand filled geo-synthetic tubes. The technique successfully adopted by NIOT will be taken up at Bommaiypalayam in Villupuram district at a cost of Rs.20 crore with NABARD funding assistance to protect the shore from sea erosion.

### **5.8.13 Studies to establish Fishing harbour at Alagankuppam in Villupuram District and Alamabaraikuppam in Kanchipuram district**

The Government has accorded administrative sanction for Rs. 1 crore towards conducting feasibility study for establishment of fishing harbour at Alagankuppam in Villupuram District and Alamabaraikuppam in Kanchipuram district.

#### **5.8.14. Management of Fishing Harbours and Fish Landing Centers**

There are 9 Major fishing harbours, 3 Medium Fishing harbours and 39 fish landing centers in Tamil Nadu. All these fish landing facilities are managed by Fishing Harbour Management committees/Fish Landing Center Management committees headed by concerned District Collectors and well represented by administrators and stake holders. SCo management committees at various levels have also been constituted for better management of fish landing infrastructures and fishery resources. The management committees generate income by collection of user fees, leasing of assets etc and the income generated is being utilized for the management, maintenance and creation of essential additional facilities at their level itself. This model proves to be very successful in maintenance of fish landing infrastructures.

### 5.8.15 Coastal Disaster Risk Reduction Project (CDRRP)

Fisheries sector and the fishing community are the most vulnerable to natural calamities, climate change and degradation of marine environment. In order to promote sustainable marine fisheries and for securing livelihood of the fishing community, the World Bank has sanctioned “Coastal Disaster Risk Reduction Project (CDRRP)” at an estimated cost of Rs.321.30 crore as given in Table 4.

**Table: 4**

#### **Details of Activities under CDRRP Schemes**

<b>Sl. No.</b>	<b>Activity</b>	<b>Amount (Rs. in Crore)</b>
<b>I.</b>	<b>Fisheries Infrastructures</b>	
a)	Ongoing ETRP works	132.30
b)	New Works (2 projects)	78.00
c)	Studies for New Projects	3.50
	<b>Sub total</b>	213.80
<b>II.</b>	<b>Fisheries Management for Sustainable Livelihood Project (FIMSUL-II)</b>	
a)	Implementation of Marine fisheries Co-management	17.00

<b>Sl. No.</b>	<b>Activity</b>	<b>Amount (Rs. in Crore)</b>
b)	Improved Capacities and Knowledge Management	5.55
c)	Fisheries livelihood support	14.826
d)	Management support	3.984
e)	Providing Wireless Communication facilities to ensure safety of Tamil Nadu Marine fisher folk	66.14
	<b>Sub total</b>	107.50
	<b>Grand Total</b>	<b>321.30</b>

### **A. Fisheries Infrastructure**

The ongoing Emergency Tsunami Rehabilitation Project (ETRP) infrastructure works have been completed. Under new infrastructure works, Fishing harbor at Mallipattinam at a cost of Rs. 60 crore and Fish Landing Centre (FLC) at Punnakkayal at a cost of Rs. 18 crore have been completed.

### **B. Fisheries Management for Sustainable Livelihood Project (FIMSUL-II)**

Under the World Bank funded CDRRP - Fisheries Management for Sustainable Livelihood-II (FIMSUL-II) project, activities improving the

socio-economic standards and safety of fishers such as capacity building, skill upgradation trainings, providing alternate livelihood assistance for sea weed culture, marine cage culture, bivalve farming, providing VHF sets to the fishermen of traditional and mechanised fishing boats for communication during distress and ensuring their safety at sea while fishing are being implemented.

To empower the fisher women, the project on by-product development from sea weed at a cost of Rs.3.93 crore is being implemented in co-ordination with Central Salt and Marine Chemicals Research Institute (CSMCRI) at Ramanathapuram district. In order to support the marine cage farming, a backyard fish seed rearing centre at a cost of Rs.1.07 crore is under construction at Mandapam, Ramanathapuram district.

For better management of marine fisheries resources, Co-management Committees have been formed involving the fishers at Village level,



District level and Regional level in all the 13 Coastal districts. The State Level Co-management Committee will be formed. Asset Management Committees have been formed in all important fishing harbours / fish landing centres involving local fishermen stakeholders. These committees are generating revenue for better management of fishing harbours / fish landing centres and thereby promoting hygiene and ensuring quality of fish. A new Central Fisheries Library at a cost of Rs.3.02 crore has been established in the Head Office under green building concept.

Outboard engines with less than 8 HP have been provided at 50% subsidy benefitting 528 country craft fishermen of Thiruvallur, Chennai, Kanchipuram, Villupuram, Cuddalore, Nagapattinam, Pudukottai, Thoothukudi and Kanniyakumari districts for their better livelihood.

## **5.9. Development of Inland Fisheries**

Aquaculture is one of the promising sectors to provide nutritional security to the ever growing population. The main objectives of inland fisheries and aquaculture are

- To increase the inland fish production of the State
- To provide quality fish seed to fish farmers
- To generate self-employment
- To provide protein rich food to the rural population and ensure food security.

### **5.9.1 Strategies / Special Initiatives in Inland Fisheries**

To increase inland fish production, the following initiatives have been taken up by the Fisheries Department.

- Demonstration of cage farming in three reservoirs to increase fish production and fish seed rearing in floating cages to increase seed availability.

- In order to increase the farming area, farmers are encouraged by providing subsidy for setting up of fish hatchery, fish culture in grow out ponds, renovation of existing fish ponds, promotion of fish culture in multipurpose farm ponds with fast growing varieties of fishes.
- Propagation of hatchery production technology for fast growing fish species such as Genetically Improved Farmed Tilapia (GIFT).
- Popularisation of scientific fish culture practices in irrigation systems by increasing stocking density and judicious stock management so as to obtain increased production.
- Providing skill development training to fish farmers on different fish culture technologies and training to the officials of the Department on latest advancements in inland fisheries.

Though Tamil Nadu has 3.83 lakh ha of water spread area amenable for fisheries development, these water bodies mainly depend

on the seasonal rains. Poor and erratic rain fall, short retention period of water bodies, mismatch between breeding season of fishes and water availability for quality fish seed production, non-availability of low cost and quality feed are the factors limiting the inland fish production in the State.

In order to overcome these limitations, the Fisheries Department has introduced a number of remedial measures outlined below:

- Introduction of scientific modified extensive and semi-intensive fish culture in common utility water bodies adopting multiple stocking and multiple harvest methods, cage culture, etc.,
- Integrating fish culture in farm ponds / multipurpose farm ponds with agriculture to provide additional income to the farmers.
- Introduction of culture technology for fast growing fishes viz., Amur Carp, Jayanthi Rohu, Genetically Improved Farmed Tilapia (GIFT) and Pangasius.

- Creating job opportunities to people by promoting fish seed rearing, culture of edible and ornamental fishes.

### **5.9.2 Tamil Nadu Irrigated Agriculture Modernization Project (TN-IAMP)**

Tamil Nadu Irrigated Agriculture Modernization Project (TN-IAMP) funded by the World Bank is being implemented in 66 sub-basins of Tamil Nadu. Implementation of this scheme will enable effective water usage and increasing unit productivity of water resources, enhance farmed fish production thereby increasing farmers income. Under this project, the World Bank has sanctioned Rs.39.50 crore to the Department of Fisheries for which administrative sanction was obtained from the Government. During Phase I (2018-19), Rs.15.52 crore has been allocated to implement the schemes shown in Table 5 and the works are under progress.

Further in Phase I sub-basins, during second year (2019-20) fisheries activities

including establishment of feed mill will be implemented to the tune of Rs.7.61 crore.

**Table:5 TN-IAMP**

<b>Sl. No</b>	<b>Activities</b>	<b>Units</b>
1	Direct stocking of fish seeds in long and short seasonal tanks	5500 ha
2	Aquaculture in farm ponds	200 Nos
3	Fishing implements	295 Nos
4	Cage farming of fishes	9 Units
5	Fish seed rearing in cages	20 Units
6	Earthen fish seed rearing and culture farm	14 Units
7	Development of pure line brood stock management and multiplication centre at Bhavanisagar and Mettur	2 Units
8	Modernization of Government fish seed farms at Lalpet and Agaram	2 Units
9	Establishment of GIFT Hatchery in Manjalar	1 Unit
10	Modern Fish Kiosk	2 Units
11	Overseas exposure visit for Fisheries Technical Staff	26 Nos

### **5.9.3 District Fish Farmers Development Agencies (DFFDAs)**

In Tamil Nadu, the District Fish Farmers Development Agencies (DFFDA) are functioning in 31 districts except Chennai, to popularise fish culture and to generate employment opportunities in rural areas. These DFFDAs are functioning under the Chairmanship of the respective District Collectors.

The main activities of DFFDA are providing technical guidance and encouraging farmers to take up fish culture by extending subsidy assistance, imparting technical training and providing extension support to fish farmers.

In order to develop eco-friendly and sustainable brackish water aquaculture, the DFFDAs functioning in the coastal districts of Tamil Nadu are regulating brackish water aquaculture by enforcing Coastal Aquaculture Authority (CAA) Act-2005 and following the best practices, guidelines issued by the CAA.

#### **5.9.4 Reservoir Fisheries**

In Tamil Nadu, Fisheries management in 62 reservoirs comprising major, medium and small reservoirs are under the control of the Fisheries Department. Among these, 54 reservoirs are directly under the control of the Fisheries Department and 8 reservoirs are under the control of Tamil Nadu Fisheries Development Corporation Limited (TNFDC) to augment the inland fish production.

- The objective is to increase the fish production and revenue of the inland fishers who depend on these reservoirs for their livelihood.
- The fishery rights of all 54 reservoirs managed by the Fisheries Department are being leased out.
- During 2018-19, 19 reservoirs are under lease. From 2012-13 to 2018-19, a total lease revenue of Rs.40.69 crore has been collected and remitted into Government account. Action is being taken to lease out the remaining reservoirs during 2019-20.



### **5.9.5 Fish seed Production/Fish seed Rearing Centres**

A total of 10 fish seed production centres are functioning under the control of Fisheries Department and one fish seed production centre is functioning under Tamil Nadu Fisheries Development Corporation Limited.

A total of 37 fish seed rearing centres are functioning under the control of the Fisheries Department and 5 fish seed rearing centres are functioning under the control of Tamil Nadu Fisheries Development Corporation (TNFDC).

Quality fish seeds of commercially important fish species are being produced and reared in these fish farms and are supplied to the farmers at subsidized rate.

During 2018-19, a production of 5207.62 lakh early fry, 705.16 lakh fingerlings have been achieved by the departmental fish seed farms. Also, 9.23 lakh GIF Tilapia seeds were produced by Krishnagiri fish seed farm.

### **5.9.6 CSS - Blue Revolution: Integrated Development and Management of Fisheries**

Under CSS – Blue Revolution scheme, an amount of Rs.1.25 crore has been sanctioned under 'Mission Fingerling', a programme to enable holistic development and management of fisheries sector in India for establishing 5 Freshwater Fish Seed Hatcheries at 40% subsidy in Tamil Nadu. The construction of Carp hatchery works by the beneficiaries are under progress.

For the development of Brackish water Aquaculture in Tamil Nadu, the Government has released an amount of Rs.40 lakh and the renovation of the farms by the beneficiaries are under progress.

### **5.9.7. Improvements to Government fish farms:**

For the improvement of GIF Tilapia seed production and rearing farm in Krishnagiri, Government has sanctioned an amount of

Rs.2.50 crore under NADP and work has been completed.

For the improvement of Government fish farm at Bhavanisagar in Erode district and at Athur in Kanchipuram district, the Government has sanctioned a sum of Rs.2 crore under NADP and the work is under progress.

## **5.10 Skill Development and Capacity Building**

### **5.10.1 Maritime Education for fisher youth**

The Government, with the intention of improving skills and creating employment opportunities to the fisher youth is extending financial assistance to the children of active fishermen families at the rate of Rs.50,000/- per student for undergoing 6 specific courses on Maritime Education notified by the Government. An amount of Rs 21.75 lakh has been released to 61 fisher youth under the scheme during 2018-19.

This scheme will be continued during the year 2019-20 also.

### **5.10.2 Fisher youth Certificate Course**

In accordance with the announcement made by the Hon'ble Chief Minister of Tamil Nadu under rule 110, "Imparting special training to the fisher youth to assist them in joining Indian Navy and Indian Coast Guard as an Employment Opportunity", the Government has sanctioned an amount of Rs.1.04 crore.

The special coaching is being imparted to the fisher youth in collaboration with Indian Coast Guard. So far, training has been imparted to 145 fisher youth from Cuddalore, Ramanathapuram, Kanniyakumari, Chennai and Thoothukudi Region. A fisher youth Thiru. A. Diyotes of Thangachimadam fishing village of Ramanathapuram district trained under Fisher youth certificate course during 2018 has been selected for the post of sailor 'Navik' in

Indian Coast Guard and the Department has made him as the brand ambassador for this training programme.

The Government is imparting 'Beach Life Guard' training to fisher youth to enhance their skill on rescue operations at sea. 38 fisher youth have been trained under this programme.

### **5.10.3 All India Civil Service Special Coaching to Fisher Youth**

The Government is providing 6 months special coaching to 20 fisher youth every year to enable them to excel in competitive exams for joining in the Indian Civil Services. The training is being given by Anna Institute of Management (All India Civil Service Coaching Centre). Two batches of training has been completed. The training expenditure is met from the CSR fund of the TNFDC.

### **5.11 Outreach and extension activities**

The Fisheries Department is equipped with an Extension and Training wing to disseminate the

welfare schemes of the Government and to transfer the research findings effectively to the fishers, fish farmers and other stakeholders.

The Fisheries Department participates in various exhibitions and trade fairs. Awareness campaign on fishery resource management, sea safety measures, hygienic handling of fishes, cleanliness in Fishing Harbours / Fish Landing Centers, plastic threats to the environment are being organized regularly. Fishermen grievance day and Fish farmers meet are also being conducted periodically. Annual days like National Fish farmers day, World Fisheries day, World Ocean day, Maritime day etc., are being celebrated by conducting various competitions for School/college students, awareness rallies and medical camps in fishing hamlets. Quarterly newsletter '**Meenvala Kalanjiyam**' in Tamil is published with information on various Government schemes, success stories of fish farmers and recent updates in fisheries sector.

### **5.12. Tamil Nadu Fisheries Census:**

The Department of Fisheries is regularly conducting decennial census exclusively for fisheries sector. The Fisheries census will enable to understand the present status of fisheries sector in the State so as to formulate policies and welfare schemes for betterment of fishers.

### **5.13 Management of fisheries co-operative societies**

The Fisheries Co-operative Societies play a pivotal role for the upliftment of fishermen and fisherwomen in the State. The Department is executing various welfare schemes to fishermen / fisherwomen through Fisheries Co-operative Societies. About 7.17 lakh fishermen / fisherwomen have been enrolled as members of 1,431 Primary Fishermen / Fisherwomen Co-operative Societies /12 District Co-operative Federations / 1 Apex Co-operative Federation. Fishermen Cooperative Societies are operating 51 full time fair price shops and 15 part time Fair price shops.

**Table: 6**  
**Members of Fisheries Co-operative Societies**

Society	No. of Societies	Members enrolled
<b>Primary Co-operative Societies</b>		
Marine Fishermen Co-operative Societies	558	3,56,992
Marine Fisherwomen Co-operative Societies	461	2,60,732
Inland Fishermen Co-operative Societies	300	82,986
Inland Fisherwomen Co-operative Societies	72	7883
Other types	27	6791
<b>Total Number of societies and members enrolled.</b>	<b>1,418</b>	<b>7,15,384</b>
District Fishermen Co-operative Federation	<b>12</b>	<b>998</b>
Tamil Nadu State Apex Fisheries Co-operative Federation	<b>1</b>	<b>814</b>
<b>TOTAL</b>	<b>1,431</b>	<b>7,17,196</b>

## **6. TAMIL NADU STATE APEX FISHERIES CO-OPERATIVE FEDERATION LIMITED (TAFCOFED)**

Tamil Nadu State Apex Fisheries Co-operative Federation Limited, (TAFCOFED) has been registered under Tamil Nadu Co-operative Societies Act, 1983 and functioning since



19.10.1992 with its headquarters at Chennai. At present, 483 Marine Fishermen Co-operative Societies, 151 Inland Fishermen Co-operative Societies, 171 Fisherwomen Co-operative Societies and 9 District Fishermen Co-operative Federations have been enrolled as members in TAFCOFED with a total share capital of Rs.91.73 lakh.

The Director of Fisheries is the Functional Registrar of the Apex Federation and it is administered by Managing Director in the cadre of Additional Director of Fisheries. TAFCOFED has five Project offices at Kanchi / Thiruvallur, Nagapattinam, Ramanathapuram, Thoothukudi and Nagercoil.

The important schemes being implemented by TAFCOFED are as follows:

### **6.1 Supply of Subsidised Industrial Kerosene to Motorised Fishing Crafts**

During 2018-19, TAFCOFED has supplied 4,996 KL of subsidised industrial kerosene to the

traditional motorised fishing crafts in Thoothukudi and Tirunelveli Districts through 13 primary Fishermen Co-operative societies and earned revenue of Rs.30.65 lakh.

## **6.2 Supply of Sales Tax exempted Diesel to Fishing Crafts**

During 2018-19, TAFCOFED has supplied 22,429 KL of tax exempted diesel to Mechanised and Motorised fishing boats through 13 diesel bunks established in coastal districts and earned a revenue of Rs.4.46 crore.

## **6.3 Supply of OBM/IBE to Traditional Fishermen**

During 2018-19, TAFCOFED has supplied OBM/IBE to 419 traditional/artisanal fishermen under National Agriculture Development Programme (NADP) at 40% subsidy at a total cost of Rs. 2 crore.

#### **6.4 Supply of Insulated Ice boxes to Traditional Fishermen**

During 2018-19, TAFCOFED has supplied 878 ice boxes out of 1000 ice boxes, to traditional/artisanal fishermen under National Agriculture Development Programme (NADP) at 50% subsidy at a total cost of Rs. 70.50 lakh.

#### **6.5 Modern Fish Stalls**

In order to supply good quality fish to general public at a reasonable price, TAFCOFED is operating modern fish stalls at Ramanathapuram, Paramakudi, Neyveli, Kanniyakumari, Madurai and Chennai. Construction of another stall is in progress at Tirunelveli.

#### **6.6 Supply of Fishing Implements for Fishermen.**

During 2018-19, TAFCOFED has supplied 100 FRP boats as replacement of traditional/wooden boats including OBM/IBM, nets and insulated ice boxes, at a total cost of

Rs.4.25 crore under CSS blue revolution scheme with 50% subsidy assistance.

### **6.7 Upgrading Fishing Efficiency of Inland Fishermen.**

During 2018-19, TAFCOFED has supplied 500 FRP Coracles at a total cost of Rs.62.50 lakh with 50% subsidy for upgrading fishing efficiency of Inland Fishermen of Tamil Nadu.

### **6.8 Establishment of Modern Fish Food Restaurant**

TAFCOFED has established a Modern Fish Food Restaurant at a total cost of Rs.2.06 crore at Vaniyanchavadi in Kanchipuram District under the funding assistance of National Agriculture Development Programme and Federation.

### **6.9 Integrated Co-operative Development Project (ICDP)**

In order to transport subsidised industrial kerosene to fishing villages of Thoothukudi and Tirunelveli Districts, one transport tanker lorry was procured at a cost of Rs.22 lakh, of which

ICDP assistance is Rs.18 lakh and the remaining amount of Rs.4 lakh met out from the Federation funds.

During the year 2017-18, Rs. 10.80 lakh has been sanctioned for construction of fish procurement shed under Integrated Co-operative Development Project (ICDP) in Thiruvallur district and the work has been completed.

Under ICDP, Rs.126.68 lakh was sanctioned for infrastructure development for the first year and TAFCOFED utilized Rs.108.08 lakh for improvement of its office buildings, procurement of generators for diesel bunks, computerization of diesel bunks and revolving fund assistance for procurement of diesel, kerosene and Out Board Motors / In Board Motors.

### **6.10 Financial Performance**

During the year 2018-19, TAFCOFED has made a turnover of Rs.178.64 crore earned a net profit (unaudited) of Rs.4.47 crore through its commercial activities like sale of diesel, kerosene, fishing implements and from fish marketing.

## **7. TAMIL NADU FISHERMEN WELFARE BOARD (TNFWB)**

Tamil Nadu Fishermen Welfare Board (TNFWB) was established in 2007, with a view to ensure social security and wellbeing of fishers and labourers engaged in fishing and its allied activities. TNFWB is headed by Hon'ble Minister for Fisheries as the Chairman and the Director of Fisheries as Member Secretary. The Board consists of members nominated from time to time by Government of Tamil Nadu.

A total of 4.65 lakh members have been enrolled in the Board.

Collection of contributions is being made through various receipts from the members of the Tamil Nadu Fishermen Welfare Board, FCS diesel bunks, TNFDC and TAFCOFED, 5% fishery lease amount and Re.1/- per kg of fish sale at Mettur Dam. A sum of Rs.21.01 crore have been collected as contribution from 01.04.2008 to 31.03.2019.

The welfare schemes being implemented by the TNFWB is detailed in Table 7.

**Table:7**  
**List of Welfare Schemes in TNFWB**

Sl. No.	Details of Relief Assistance	Relief / Assistance per beneficiary (Amount in Rs)			
1	Accident Relief				
	a) Death due to Accident	2,00,000			
	b) Loss of both hands	1,00,000			
	c) Loss of both legs	1,00,000			
	d) Loss of one hand and one leg	1,00,000			
	e) Loss of sight in both eyes	1,00,000			
	f) Loss of one hand or one leg	1,00,000			
	g) Loss of limbs due to Major injuries other than the above items	50,000			
2	Death during fishing or after fishing due to reasons other than Accidental death	2,00,000			
3	Fishermen Missing during fishing	2,00,000			
4	Natural Death	15,000			
5	Funeral Expenses	2,500			
6	Assistance for Education to son and daughter of the Members	<b>Day scholar</b>	<b>Hosteller</b>		
		<b>Boys</b>	<b>Girls</b>	<b>Boys</b>	<b>Girls</b>
	a) Pass in 10 <sup>th</sup> Std	1,250	1,500	1,250	1,500
	b) Pass in 12 <sup>th</sup> Std	1,750	2,000	1,750	2,000
	c) ITI and Polytechnic	1,250	1,750	1,450	1,950
	d) Bachelor Degree	1,750	2,250	2,000	2,500
	e) Post Graduate Degree	2,250	2,750	3,250	3,750
	f) Under Graduate Professional Courses (Law, Engineering, Medicine, etc.)	2,250	2,750	4,250	4,750

Sl. No.	Details of Relief Assistance			Relief / Assistance per beneficiary (Amount in Rs)	
	g) Post Graduate Professional Courses	4,250	4,750	6,250	6,750
7	Marriage Assistance			Male	Female
	a) Marriage Assistance to Member			3,000	5,000
	b) Marriage Assistance to son / daughter of a Member			3,000	5,000
8	a) Delivery @ Rs.1,000/- per month for 6 months			6,000	
	b) Miscarriage			3,000	
	c) Termination of Pregnancy			3,000	

- During 2018-19, the TNFWB has settled 4,316 claims amounting to Rs.3.08 crore, under various welfare schemes through NEFT.
- To pursue B.F.Sc/B.Tech. (Fisheries Engineering) degree from Tamil Nadu Dr.J.Jayalalithaa Fisheries University, 8 fishermen students who are the wards of the members of TNFWB have been provided with the education fees. In 2018-19, a sum of Rs.4,49,500/- has been borne by the TNFWB.



## **8. TAMIL NADU FISHERIES DEVELOPMENT CORPORATION LIMITED (TNFDC)**

The Government of Tamil Nadu formed Tamil Nadu Fisheries Development Corporation Limited, (TNFDC), a Public Sector undertaking under companies Act in 1974. The authorised share capital and paid up share capital of the company is Rs.5 crore and Rs.4.45 crore respectively. The Government of Tamil Nadu appoints the Board of Directors.

The Corporation is headed by the Managing Director / Director of Fisheries followed by General Manager, Senior Managers, Managers, Deputy Managers and Assistant Managers. The field activities are carried out at unit level viz. Chennai, Coimbatore, Aliyar, Madurai & Thoothukudi. TNFDC is manned by 108 permanent employees in different categories.

Systematic scientific stocking of fish seeds are being done for sustainable fish production in eight reservoirs which are managed by TNFDC.

TNFDC is having a total fish seed rearing area of 3.83 hectares in 5 fish farms at Sathanur, Aliyar, Amaravathy, Thirumoorthy and Palar - Porandalar Reservoirs. Quality fish seeds produced by the TNFDC are stocked in the reservoirs managed by the TNFDC besides supplying to private fish farms. TNFDC has also established ornamental fish production centers at Aliyar and Thirumoorthy Nagar.

TNFDC is marketing fresh fish and sea food through its chain of retail fish stalls and mobile units in Chennai, Madurai, Coimbatore, Tirupur, Pollachi, Ooty, Thoothukudi, Kanniyakumari and Thiruvannamalai.

The Corporation is operating 32 diesel outlets in the fishing harbours and fish landing centres located all along the coastal area in the State to supply tax exempted high speed diesel to the motorised traditional and mechanised fishing crafts. The Corporation is also operating petrol outlet at Threspuram in Thoothukudi for sale of petrol to General Public.

## **8.1 Management of Chetpet Eco-Park**

Fisheries Department has established a beautiful Eco-Park with Sport Fishing facilities at an estimated cost of Rs.42 crore at Chetpet Lake which is located in the heart of Chennai city. The operation and maintenance of the Park is being under taken by TNFDC. The Eco-Park with the Boating, Angling, Multi-Level Car Parking (MLCP), Park, Recreation Centre, Food Court, Walking and Jogging Tracks, Children's Play Area, Multimedia, Amphi-theatre, etc., is attracting a huge number of footfalls every day. An "Aquarium-cum-Aquatic Virtual Reality Centre" has also been established at a cost of Rs.6.93 crore as an additional attraction to Public.

## **8.2. Establishment of Modern Mobile Sea Food Restaurant by TNFDC**

The Corporation is running 3 modern mobile sea food restaurants at Chennai (Marina - 2 and Neelankarai - 1) to serve various sea food delicacies to the customers at an affordable price.

### **8.3 Establishment of centralized kitchen for Sea Food Products and Training Centre**

In accordance with the announcement made by the Hon'ble Chief Minister of Tamil Nadu under Rule 110, the TNFDC Ltd, has established a Centralized Kitchen with training facilities for Women Self Help Group for production & marketing of ready to cook and ready to eat fishery products at Royapuram, Chennai at an estimated cost of Rs.3.04 crore, with the aim of promoting sea food consumption among the public and providing self-employment opportunities to the fisher youth.

### **8.4 Establishment of Online Fish Marketing facilities at Chennai**

TNFDC is making sincere efforts to create awareness on the positive health aspects of sea food consumption. TNFDC has established online fish marketing facility for the convenience of customers in Chennai marketing unit. Based on the good responses from the General Public, the

Corporation has initiated action for revamping the Online Website with additional user friendly features along with Mobile App applications.

## **8.5 New Schemes**

### **8.5.1 Operation of Fish Feed Mill**

The Corporation has taken over the Fish Feed manufacturing unit established by the Department of Fisheries, Government of Tamil Nadu at Achampatti in Thanjavur under NADP and commenced production operations from 23.08.2018.

### **8.5.2 Additional New Mobile Fish Marketing Vehicles**

The Corporation has introduced 4 nos. of mobile fish marketing Kiosks and 2 nos. of insulated fish transportation vehicles for selling of fishes in hygienic conditions to the public.

### **8.5.3 Modern Sea Food Restaurant at Teynampet**

The TNFDC Sea Food Court at Teynampet, Chennai has been modernized with Sit & Dine facilities.

#### **8.5.4. Introduction of TNFDC Brand Logo and Corporate Film.**

The Corporation in order to popularize its activities and schemes among the general public has developed a new brand logo with caption of **“IDHU NAMMA OORU MEENGAL”** and also launched a corporate film along with promotional activities in social media.

#### **8.6 Financial Performance of TNFDC**

The TNFDC by undertaking various commercial activities such as fresh fish marketing, Sea Food Courts, Diesel / Kerosene sale, reservoir management, etc., has made a turn over of Rs.585 crore and earned a profit of Rs.11 crore for the financial year 2018-19. It is targeted to earn Rs.13.15 crore as profit for the year 2019-20.

During the year 2017-18, the TNFDC paid a sum of Rs.2.11 crore to the State Government as dividend. During the financial year 2018 -19, Rs.1 crore was paid as TNFDC's contribution to the Chief Minister's Public Relief Fund.

TNFDC paid a sum of Rs.1.03 crore for the year 2018-19, as its contribution to Tamil Nadu Fishermen Welfare Board.

The TNFDC has also contributed a sum of Rs.21.761 lakh to some of the Fisheries projects and Fishermen Welfare Schemes from its Corporate Social Responsibility (CSR) Fund.

## **9. TAMIL NADU Dr. J JAYALALITHAA FISHERIES UNIVERSITY (TNJFU)**

Tamil Nadu Dr. J Jayalalithaa Fisheries University (TNJFU), a professional Fisheries University funded by the State Government was established as per Tamil Nadu Fisheries University Act 2012, on 19.06.2012 at Nagapattinam, to impart professional fisheries education, conduct research and training for enhancing fish productivity and utilisation in the State, by following State Agricultural University (SAU) pattern and syllabi. The University has been renamed as Tamil Nadu Dr. J Jayalalithaa Fisheries

University (TNJFU) as per G.O (Ms) No.21. Animal Husbandry, Dairying and Fisheries (FS-4) Dept., dated: 16.02.2018. TNJFU has the following credentials:

- The National Agricultural Education Accreditation Board - ICAR, has granted accreditation to TNJFU in November, 2017 for a period up to 31<sup>st</sup> March, 2021.
- TNJFU secured first position in the ranking list released by the Indian Council of Agricultural Research for the year 2016-17 among the Fisheries Universities.
- TNJFU is also recognised under 12B by the University Grants Commission, New Delhi.
- TNJFU also has been recognised by the NFDB as the Centre for skill development.
- TNJFU Referral Laboratory of Fish Quality Monitoring and Certification at Thoothukudi has NABL Accreditation.



- TNJFU has established one aquarium trade supporting “Aquatic Rainbow Mall” at Madhavaram, Chennai through which the aquarium traders and public can get more benefits.
- ‘Asian Pacific Aquaculture – 2019’ – an International Conference cum EXPO was organised by TNJFU joining hands with World Aquaculture Society – Asian Pacific Chapter during 19-21 June 2019 at Chennai. It has attracted over 3000 Participants from over 50 countries. Scientists from countries like USA, Belgium, China, Mexico, Philippines, Thailand, Vietnam, Japan etc have come to India for the presentation of their research findings. There were more than 500 research papers presented and 225 Booths were installed which brought in more firms from overseas. More than 400 research abstracts were presented as posters.

## **9.1 Vision**

"Harnessing the Science of Fisheries for Food, Nutrition and Livelihood"

## **9.2 Mission**

- To impart skill based professional education in different branches of Fisheries Science.
- Wide range of higher education opportunities to be made available for the fisheries professionals
- To conduct organised research in frontier areas with the objective of developing cutting edge technologies in Fisheries Science.
- To provide effective extension services using conventional and advanced State-of-the-art dissemination tools
- To facilitate the rich incubation system in alliance with industry and academic partners to develop transferable technologies
- To offer Para-professional fisheries education to the needy fisher folk, fish farmers, unemployed youth in the State to enhance entrepreneurial skills in fisheries sector

The University Headquarters is functioning in the newly built Vettar River campus from September 2018. It has the Offices of the Vice-Chancellor, Registrar, Director of Research, Director of Extension Education, Controller of Examinations, Dean (Academics), Dean (Students Welfare), Finance Officer and Estate Officer.

### **9.3 Components of the University**

#### **A. Colleges – 7 Nos.**

1. Fisheries College and Research Institute, Thoothukudi
2. Dr. M.G.R Fisheries College and Research Institute, Ponneri
3. College of Fisheries Engineering, Nagapattinam
4. Dr.M.G.R Fisheries College and Research Institute, Thalaignayiru
5. Institute of Fisheries Post Graduate Studies, OMR Campus, Chennai
6. Institute of Fisheries Biotechnology Vaniyanchavadi, OMR Campus, Chennai
7. TNJFU Business School (Fisheries), Vaniyanchavadi, OMR Campus, Chennai

## **B. Para-Professional Institutes – 3 Nos.**

1. Para-Professional Institute of Aquaculture, Muttukadu, Chennai
2. Para-Professional Institute of Fishing Technology, Mandapam
3. Para-Professional Institute of Fish Processing Technology, Royapuram, Chennai

## **C. Krishi Vigyan Kendra (KVK) – 1 No.**

Krishi Vigyan Kendra located at Sikkal, Nagapattinam District was transferred from TNAU to TNJFU with 10 technical staff and 6 non-technical staff w.e.f 01.04.2018. This KVK has been strengthened with the sub-components to add fisheries related activities is the ever first Fisheries KVK in the country to provide exposure on newer technologies to the farming community of the district.

## D. Other constituent units of TNJFU

- Off-campus facilities 06
- Centres for Sustainable Aquaculture (CeSA) 07
- Centres for Incubation and Vocational Training in Aquaculture (DIVA) 03
- Centres for Incubation and Vocational Training in Fisheries (DIVF) 03
- TNJFU Academy 01
- University Referral Labs 04
- Kayalagams 03
- Aquatic Rainbow Technology Park (ARTP) 01
- Aquatic Rainbow Mall (ARM) 01

In total, the University has **40 constituent units** spread across the State of Tamil Nadu for sustainable fisheries development.

### 9.4 New Courses Introduced (2018-19)

1. B.Tech (Biotechnology)
2. B.Tech (Food Technology)
3. M.F.Sc (Fish Pharmacology & Toxicology)
4. M.F.Sc (Fish Genetics & Breeding)
5. Ph.D (Life Science)

## 9.5 Activities of the University

The activities of TNJFU in the areas of Education, Research and Extension services are outlined below:

### 9.5.1 Academics:

Through the 10 Colleges / Institutes, 5 UG degree programs, 14 PG Degree Programs and Ph.D., are being offered in 10 disciplines. In total, 877 students are pursuing their education in the constituent units of the University.

**Table:8**

#### **Details of Students Enrolled in TNJFU**

<b>Sl. No.</b>	<b>Courses Offered</b>	<b>No. of Students on roll</b>
1	B.F.Sc.	488
2	B.Tech. (Fisheries Engineering)	97
3	B.Tech. (Biotechnology)	59
4	B.Tech. (Food Technology)	40
5	B.Voc. (Industrial Fish Processing Technology)	27
6	Diploma (Industrial Aquaculture)	13
7	M.F.Sc.	91
8	M.B.A.	04
9	Ph.D.	53
10	Ph.D. (Life Science)	05
	<b>Total</b>	<b>877</b>

P.G and Ph.D., students who are all admitted through the University entrance examinations are given University merit scholarship of Rs.4,000/- and Rs.5,000/- per month, respectively. Various student amenities including a Placement Cell, Ragging Prevention Cell, Counselling Cell, Medical assistance, Co-operative stores, etc. are available in the colleges to promote the interests of students in acquiring knowledge on various aspects of Fisheries Science as well as finding their suitable placements.

## **9.5.2 Research**

### **9.5.2.1 Key research projects operated**

During 2018-19, Rs 200.60 lakh have been obtained from different funding agencies to carry out research works in this University. Following are the key research projects of this University:

- Cage farming in open sea in Ramanathapuram coast of Tamil Nadu.

- Development of production models for farm ponds and irrigation tanks in inland farming sector.
- Development of disease management technologies in fish and shrimp farming.
- Development of high quality feed for the aqua farming.
- Breeding and farming of marine ornamental fishes.
- Development of indigenous shrimp brooders for promotion of indigenous shrimp farming.
- Development of quality value added fish products and its marketing.

### **9.5.2.2 External Funding**

Institutional research grants from various agencies have been obtained. NFDB, NABARD, TANII (SPC), DBT & DST, are few of the funding agencies provided grant to carry out research in frontier and applied areas. Grant to the tune of Rs.34.45 crore have been obtained in the financial



year 2018-19 for various schemes that have been implemented in the University.

### **9.5.2.3 University Research Grants**

University Research Projects for young teaching faculty are continuously encouraged by providing a minimum budget to carryout research works. Further, to encourage the youngsters, a new scheme '**Junior Teachers' Research Fellowship**' was introduced by providing Rs. 2.0 lakh per teacher. Six Junior Teachers have been identified and they were encouraged through this new scheme.

### **9.5.2.4 Institute Industrial Projects:**

In order to run the University's constituent units independently, MoUs are signed with many industries for bringing research grants. In this regard, M/s. Kemin Industries, USA and M/s. BASF, Germany are few leading firms are working with TNJFU. In addition to the above, TNJFU is also serving as "Knowledge Partner" for the Bharat

Heavy Electricals Ltd., Trichy for its waste water utilization in aquaculture.

#### **9.5.2.5 Technologies Developed**

The key technologies that have been developed and transferred to the stakeholders from the University are as follows:

- Biofloc meal as a feed ingredient to replace the fishmeal in shrimp feed.
- Raceway Technology for nursery rearing of vannamei shrimp.
- Breeding and farming of loaches.
- Breeding and rearing of *P.semisulcatus*.
- Aquaponics fish culture model by integrating catfish and GIFT Tilapia with horticulture crops.
- Induced Breeding and seed production of Pearl spot (*Etroplus suratensis*) and its culture.
- Cost efficient poultry by-product meal based protein diet for GIFT Tilapia

## 9.6 Memorandum of Understanding (MoU) with other Universities / Institutes

During 2018-19, TNJFU signed 26 Memorandum of Understanding (MoU) with several International Universities / Indian universities, National fisheries organizations, private aquafarms and feed industries for student exchange, collaborative research and capacity building.

**Table : 9**  
**List of MoUs signed by TNJFU (2018-19)**

<b>Sl. No.</b>	<b>MoUs signed with International Universities/ Institutes</b>
1.	Agriculture and Forestry University (AFU), Nepal
2.	Hawassa University (HU), Ethiopia
3.	Shanghai Ocean University (SHOU), China
4.	Asian Institute of Technology, Thailand
5.	Prince of Songkla University, Thailand
<b>Sl. No.</b>	<b>MoUs signed with National Universities/ Institutes</b>
1.	National Fisheries Development Board (NFDB), Hyderabad
2.	National Institute of Ocean Technology (NIOT), Chennai
3.	ICAR-National Academy of Agricultural Research Management (NAARM), Hyderabad
4.	Sathyabama Institute of Science and Technology, Chennai

5.	Indian Institute of Food Processing Technology (IIFPT), Thanjavur
6.	ICAR-Central Inland Agricultural Research Institute (CIARI), Port Blair
7.	Velammal Engineering College, Chennai
8.	ICAR-Central Institute of Post-Harvest Engineering & Technology (CIPHET), Ludhiana
9.	SASTRA University, Thanjavur
10.	Academy of Maritime Education and Training , Chennai
<b>Sl. No.</b>	<b>MoUs signed with Industries (Indian and Overseas)</b>
1.	M/s. Sea6 Energy, Bangalore
2.	M/s. King Aquatic, Chennai
3.	M/s. Certitude Farm, Vettaikaraniruppu, Nagapattinam Dist.
4.	M/s. Zion Marine, Chennai
5.	M/s. Seribu Bio Systems SDN MHD, Malaysia
6.	M/s. Jayashri Hatchery, Chennai
7.	M/s. AlgaIRNutra Pharms Pvt. Ltd., Thanjavur
8.	M/s. CPF India Private, Ltd, Chennai
9.	M/s. Vishalakshi Marine Farms, Nagapattinam
10.	M/s. Madha Ice Plant & Boat Yard, Nagapattinam
11.	M/s. PS Steel Boat, Nagapattinam

## 9.7 Advocacy/Certification/Consultancy services

The State Referral Laboratory at Madhavaram and TNJFU's two referral labs at Nagapattinam and Thoothukudi for aquatic animal diseases surveillance are providing service to the

farmers, entrepreneurs and researchers in the field of aquaculture disease monitoring and treatment. The University is involved in certification of the seafood products through the Fish Quality Monitoring and Certification Centre at Thoothukudi. Besides the above, 'Aquaculture Quality Testing Labs' are functioning at all the colleges and major centres in the State. A mobile Aquaculture Quality Testing Lab is in operation from FC&RI, Ponneri.

### **9.8 Outreach and Extension activities**

TNJFU is instrumental in empowering the stakeholders and enterprising public, through various extension and training programmes covering all aspects, including farm advisory services, answer to farmers' queries, organising mass awareness programmes, Fish farmers' meets, Stakeholders linkage through mass media, Industry-Institute meets and exhibitions, Farm-School on AIR, Farmers' Meet, Cluster group

formation, etc. The University has been conducting various training programmes with the objective of planning and execution of all outreach programmes. Special purpose vehicle (SPV) mode project on “Aquatic Rainbow Technology Park” was implemented in the TNJFU – Madhavaram campus for ornamental fish culture involving about 80 entrepreneurs. It is first of its kind in India.

In the year 2018-19, the University organised 26 training programmes with the funding support of NFDB, in which 1275 beneficiaries were trained. Four skill development training programmes funded by the Tamil Nadu Skill Development Corporation were conducted benefitting 420 persons.

The University publishes a farm Journal ‘**Meenvala Sudar**’ in Tamil carrying information on all aspects of fisheries science and technology, current developments in the fisheries sector, various schemes for the promotion of fisheries and fisher folk and fish farmers besides success stories

of farmers. More than 25 pamphlets / folders / booklets on important fisheries technologies were released for the benefit of the stakeholders.

### **9.9 Projects implemented in the year 2018-19**

- Establishment of Fisheries Training Institute at Mandapam, Ramanathapuram District – Rs.450 lakh.
- Demonstration and training for farmers capacity building at regional outstations of CeSA in TNJFU – Rs. 100.53 lakh.
- Establishment of Fisheries Techno-Park-cum-Fish Processing Technology Business Incubation Centre – Rs. 114.47 lakh.
- Establishment of freshwater ornamental fish brood bank for sustainable aqua farming in Tiruchirapalli district of Tamil Nadu – Rs. 313.76 lakh.
- Para-Professional Institute of aquaculture technology at Muttukadu, Chennai-Rs. 689.98 lakh.

- Establishment of Re-circulatory Seabass aquaculture technology park at Madhavaram Rs.350 lakh.

### **9.10 Major achievements of University**

TNJFU is currently the largest Fisheries University in the country in terms of students' admission, number of courses offered, infrastructure and training programmes conducted. Since its inception, this seven year old young University has grown tremendously and the achievements are as follows:

- When TNJFU was established in the year 2012, there were only seven units including 1 college, 2 institutes and 4 centers. At present, there are 40 units including 7 colleges, 3 paraprofessional institutes, 1 KVK and 29 centers. Thus, the University has grown almost six times in terms of infrastructure.
- In the year 2012, only 11 (1 UG, 7 PG and 3 Ph.D.) programmes were offered. At present,



34 (5 UG, 14 PG, 14 Ph.D and one diploma) programmes are offered.

- In the year 2012, only 60 students were enrolled per year whereas in the 2018-19 academic year, 388 students were enrolled for various programmes. It shows an increase of 647% in the students' enrolment.
- In the year 2012, only 200 persons were trained whereas in the year 2018-19, 1695 persons were trained.
- To contribute to the skill development mission, TNJFU started offering UGC approved 3 year B.Voc. degree programme in Industrial Fish Processing and 1 year Diploma in Industrial Aquaculture from the year 2018-19.

## **9.11. Future Programmes**

### **9.11.1. Academics**

As a consistent effort to develop human resources in Fisheries sciences, the following three new programmes have been planned for the year 2019-20 onwards.

## **Three new UG Programs**

1. B.Tech (Fisheries Nautical Technology)
2. B.Tech. (Energy and Environmental Engineering)
3. BBA (Fisheries Business Management)

### **9.11.2 Research**

The following are the new research areas in which projects will be obtained and implemented for the technology development and dissemination to farmers and entrepreneurs:

- Industrialization of Tilapia farming in Tamil Nadu through Aquaculture Estates.
- Loach farming as an alternative farming technology for the State to be introduced.
- Pure-line broodstock development and maintenance for the quality seed production.
- Cost effective feeds development for major cultivable species.
- Live feed fortification and developing larval feeds for marine finfishes.

- Breeding and production of indigenous ornamental fishes for inland sector.
- Developing disease surveillance protocol for fish and shrimp farming.
- Developing quality value added fish products and popularize them in the State through 'Kayalagam' marketing outlets.

### **9.11.3. Transfer of technology and service to the stakeholders**

The following are the activities that would empower the stakeholders with technology for further development of the fisheries sector in the State:

- Establishment of 'Recirculatory (RAS) Seabass Aquaculture Technology Park' for doubling the income with low water budgeting.
- Establishment of 'Integrated Multi-Trophic Aquaculture'(IMTA) based culture technology to augment fish production as an alternative livelihood for fisherfolk at Tharuvaikulam, Tamil Nadu.

- 'Entrepreneur - Marketing Intelligence Services Cell' (e-MISC) for fishers of the State.
- Development of 'Mobile app based fisheries information system' for sustainable fisheries management and livelihood enhancement of fishers.
- To introduce more number of 'Kayalahams' (sales outlet) with the funding support of NFDB and other agencies.
- Service to the farmers through "Aqua One Centres" of NFDB.

## **10. MAJOR ACHIEVEMENTS OF FISHERIES DEPARTMENT DURING THE YEAR 2018-19**

### **10.1 Fishermen Welfare**

- With the unrelenting and persistent efforts of the Government of Tamil Nadu, 100 fishermen apprehended by Sri Lankan Navy were released and repatriated and 36 salvageable fishing boats were brought back during 2018-19.

- For the year 2018-19 relief assistance under various welfare schemes totaling to a sum of Rs.287.47 crore was distributed to fishers/families of 13 coastal districts.
- As part of e-governance, to ensure transparency in the implementation of welfare schemes, the Government has initiated steps for online enrollment of beneficiaries through Common Service Centers (CSC).
- For the year 2018-19, a sum of Rs.14.35 lakh has been released as daily relief to the 22 fishermen families of missing fishermen.
- Under the flagship scheme of diversification of trawlers in Palk Bay region to deep sea fishing 2000 deep sea fishing boats will be constructed at an estimated cost of Rs.1,600 crore. The Hon'ble Chief Minister has flagged off the first batch of boats constructed in Cochin Shipyard Ltd.

- A total of 160 Satellite phones, 200 NaVIC and 80 NAVTEX Communication equipments were distributed to 80 clusters of boats engaged in deep sea fishing. Besides, 21 satellite phones were also distributed at district and State level to monitor the operation of deep sea fishing boats.
- Under the scheme on 'Providing Seamless Communication and Networking facilities' 15,004 numbers of 5 watt VHF sets have been provided to motorised fishing crafts free of cost and 2,535 numbers of 25 watt VHF boat mounted sets were provided to the mechanised fishing crafts at 75% subsidy. Totally 17,539 numbers of VHF sets have been distributed to the fishermen to ensure their safety at sea.
- 507 mechanised fishing boats of Tamil Nadu from Chennai, Cuddalore, Nagapattinam, Thoothukudi and Kanniyakumari districts have

been fitted with satellite based transponders for monitoring of the fishing vessels and to render assistance at the time of distress in deep sea up to 200 Nautical Miles.

- The Department of Fisheries in association with the National Centre for Coastal Research (NCCR), Ministry of Earth Sciences (MoES), Government of India, launched a Mobile application "**THOONDIL**" and WebGIS based Decision Support System on 15.11.2018 to ensure the safety and security of the fishermen by monitoring the movements of fishing vessels and by registering the crews venturing for fishing.
- In continuation of the announcement made by Hon'ble Chief Minister, the Government has sanctioned an amount of Rs.1.04 crore for "Imparting special training to the 12th passed fisher youth to assist them in joining Indian Navy and Indian Coast Guard as an alternative

livelihood and employment opportunity. Training has been imparted to 145 Fisher Youth from Chennai, Cuddalore, Ramanathapuram, Thoothukudi and Kanniyakumari Region.

- The Tamil Nadu Fisheries Development Corporation Limited has made a turn over of Rs.585 crore and earned a net profit of Rs.11 crore for the financial year 2018-19. It is targeted to earn Rs.13.15 crore as profit for the year 2019-20.
- The Tamil Nadu State Apex Fisheries Cooperative Federation has made a turn over of Rs. 178.64 crore and earned a net profit of Rs.4.47 crore for the financial year 2018-19.
- The Government has initiated steps to rope in Japanese firm to promote and facilitate direct export of marine products by fishers.



## **10.2 Infrastructural facilities**

- The construction of Fishing Harbour at Mookaiyur in Ramanathapuram District at a total cost of Rs.113.90 crore have been completed.
- The construction of Fishing Harbour at Thengapattinam in Kanniyakumari District at a total cost of Rs.97.40 crore have been completed.
- The construction of Fishing Harbour at Mallipattinam in Thanjavur District at a total cost of Rs.60 crore have been completed.
- Fish Landing Centre works at Vembar in Thoothukudi District at a total cost of Rs.10.50 crore have been completed.
- Fish Landing Centre works at Kovalam in Kanchipuram District at a total cost of Rs.5 crore have been completed.
- Stabilisation of Groynes at Kadiyapattinam in Kanniyakumari District at a total cost of Rs.4 crore have been completed.

### **10.3 RELIEF MEASURES TO THE VICTIMS OF GAJA CYCLONE**

- The severe cyclone "GAJA" made its land fall between Nagapattinam and Vedaranyam on 16.11.2018 devastated the coastal districts of Nagapattinam, Thanjavur, Thiruvarur and Pudukkottai inflicting immense damages to the fishing boats, fishing implements, fishermen houses and fisheries infrastructures. Due to the elaborative precautionary measures taken by the department, no loss of life among fishers was reported.
- Considering the high unit cost of FRP vallams, the Hon'ble Chief Minister of Tamil Nadu has made an announcement to enhance the relief assistance to fully damaged FRP vallam with nets from Rs.85,000/- to Rs.1,50,000/- in order to re-create their fishing assets.
- Government has released a total sum of Rs.53.71 crore under SDRF and State funds

towards relief assistance to 195 numbers of fully damaged mechanized fishing boats, 1,429 number of partially damaged mechanized fishing boats, 1,051 number of fully damaged FRP vallams, 2,942 numbers of partially damaged FRP Vallams, 6,157 numbers of engines and 10,648 number of nets so as to enable the affected fishermen to create fishing assets and resume their fishing operations for sustaining their livelihood.

- The Government changed the procedure of maintaining the relief amount of fully damaged boats in joint bank accounts and has released a total sum of Rs.25.42 crore directly to the owners bank account whose boats were fully damaged during Gaja cyclone enabling them to create the asset without any hurdles.

## **11. CLIMATE RESILIENT FISHERIES**

Fisheries sector have been profoundly affected by global climate change. Climate change

is directly affecting the fisheries and aquaculture sector by modulation of physiology, behavior, distribution and migration pattern, reproductive capacity and mortality of fishes and livelihood of fishermen.

To build resilience and promote effective adaptation to climate change in the fishery and aquaculture sectors various steps has been taken by the Government. For the enhancement of fishery resources, deployment of artificial reefs in inshore waters, ranching of commercially important fishes are in practice. For shore protection for safe berthing of fishing crafts, construction of Fishing Harbours, Groynes, RMS wall in coastal districts. Adoption of code of conduct for responsible fishing are also in practice. Aquafarmers are encouraged to culture fast growing, disease resistant species. Various awareness programmes among the public on the impacts on climate change are also being conducted throughout the State.

## **12. SUSTAINABLE DEVELOPMENT GOALS**

Fisheries and aquaculture offer ample opportunities to alleviate poverty, hunger and malnutrition, generate economic growth and ensure better use of natural resources. The United Nations has made an universal call to end poverty, ensure that all people enjoy peace and prosperity by ascertaining 17 Goals. The fisheries sector has been entrusted with Goal 14 - Life Below Water, which implies conserve and sustainably use the oceans, seas and marine resources for sustainable development. The major indicators of Goal 14 are Maximum Sustainable yield (MSY) in fishing, provide access for small-scale artisanal fishers to marine resources and markets and enhance the conservation and sustainable use of oceans and their resources.

The Government has taken various measures to achieve the targets of SDG like adopting code of conduct for responsible fishing, enforcing Tamil Nadu Marine Fishing Regulation

Act, conversion of trawl fishing boats into deep sea fishing boats, implementation of fishing ban period, deployment of artificial reefs and ranching of fish seeds. In addition, activities like seed production and culture of fish, development of cold chain facilities to promote Hygienic fish marketing and by creating awareness and capacity building to fisher folk on sustainable fishing practices.

### **13. WAY FORWARD**

The Government will take earnest action for providing latest communication systems to ensure the safety and security of fishermen at sea, promote sustainable fishing practices to optimally utilize the untapped deep sea fishery resources. Efforts will be taken to develop world class Integrated Fishing Harbours, shore facilities and cold chain links all along the coast of Tamil Nadu to ensure hygienic handling, quality assurance and better value realization for the catches.

Steps will be taken for effective enforcement of Fishery Regulations and Fisheries Acts and Rules, for conservation and sustainable management of Fishery resources. All Fishing Harbours, Fish Landing Centers, Fisheries infrastructures and Fishery resources will be managed through co-management principle. The State will also promote ecologically sustainable fishing practices and technologies.

The state will continue to implement the social security schemes for the welfare of fisher folk. State will also promote schemes for alternative livelihood of fishers by skill upgradation and capacity building of fishers in all possible avenues.

Government will devise flagship schemes for conversion of existing fishing fleet and promoting deep sea fishing in order to reduce the near shore fishing pressure.

Efforts will be taken to enhance the overall inland fish production by strengthening the District Fish Farmers Development Agencies (DFFDA) and increase the fish production by promoting latest technologies and effective utilization of all resources.

Efforts will be taken to establish model fish farms in potential districts of Tamil Nadu to demonstrate new and advanced technologies in inland fisheries sector to the farmers for enhancing fish production.

Fish farmers will be encouraged to establish fish farms/fish seed rearing farms on cluster approach to increase inland fish production, promote better marketing and ensure availability of quality fishes. Cage farming of fast growing fishes will be promoted in cluster approach in potential districts.

The Government has taken steps to introduce cage farming of fishes in the coastal water of Tamil Nadu. The Government will take



further steps to come up with Mariculture policy and promote Mariculture in large scale.

The State will take steps to disseminate the recent technologies, best farming practices developed by Universities and Research Institutes to the field level to enhance fish farmers income.

Steps will be taken to facilitate institutional funding systems to fishing and fisheries sector of the State, for harnessing the opportunities for expanding export market for high-value products, for the development of domestic marketing.

#### **14. BUDGET ALLOCATION FOR THE YEAR 2019-20**

For the year 2019-20, a sum of Rs.927.85 crore has been provided in the budget. Out of this, the projected revenue expenditure is Rs.581.56 crore and the capital expenditure is Rs.346.29 crore.

## **15. CONCLUSION**

The Fisheries sector over the years is transforming from artisanal fishing to modern fishing with the advent of technology and Best Management Practices (BMP). It is developing as a major economy with diversifications viz., exploring deep sea resources, eco-friendly capture fishing and aquaculture practices for culture of finfish, shell fish, ornamental fish culture, coastal-tourism, fish processing units, etc. The Government is giving utmost importance for protecting the traditional fishing rights of our fishermen and has also introduced many fishermen welfare/ development schemes with a long term vision to ensure safety and social security of fishers in the State. The Government is also taking all measures to strengthen the fishery infrastructure, improving rural economy through integrating fish culture with agriculture and fisheries allied alternate livelihood activities to achieve an all-inclusive growth of the State.

This Government will continue to strive hard for the development of Fisheries sector and the economic development of fishers under the guidance of Hon'ble Chief Minister of Tamil Nadu following the vision and mission of Late Hon'ble Chief Minister Dr. J Jayalalithaa in the coming years also.

**D. JAYAKUMAR**  
**Minister for Fisheries, Personnel**  
**and Administrative Reforms**



The Hon'ble Chief Minister flagged off the first batch of Deep Sea Fishing boats on 19.02.2019.



The Hon'ble Chief Minister distributed communication devices to deep sea going fishermen on 19.02.2019.



The Hon'ble Chief Minister handed over appointment orders to the legal heir of the fishermen affected by 'Ockhi cyclone' on 27.08.2018.



The Hon'ble Chief Minister distributed relief assistance to the fishermen affected by 'Gaja' cyclone at Nagapattinam on 25.11.2018.



The Hon'ble Minister for Fisheries, Personnel & Administrative Reforms launched the WebGIS based "Thoondil" mobile app for marine fishermen on 15.11.2018.



The Hon'ble Minister for Fisheries, Personnel & Administrative Reforms distributed Moped fitted with Insulated icebox to the retail fish vendors on 21.01.2019.



The Hon'ble Minister for Fisheries, Personnel & Administrative Reforms released Logo of Tamil Nadu Fisheries Development Corporation on 26.01.2019.



The Hon'ble Chief Minister inaugurated TNFDC's Aquarium cum AR/VR facilities at Chetpet Eco Park on 04.03.2019.



The Hon'ble Minister for Fisheries, Personnel & Administrative Reforms flagged off TNFDC's Mobile Fish Marketing Vehicles on 05.03.2019.



The Hon'ble Minister for Fisheries, Personnel & Administrative Reforms interacted with Japanese delegation about Tuna Fishing methods and trade related activities.



## FISHING HARBOURS AND IMPORTANT FISH LANDING CENTERS OF TAMIL NADU



