



**ANIMAL HUSBANDRY, DAIRYING,  
FISHERIES AND FISHERMEN WELFARE  
DEPARTMENT**

**FISHERIES AND FISHERMEN  
WELFARE**

**POLICY NOTE  
2021-2022**

**Demand No. 7**

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and Animal Husbandry**

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GOVERNMENT OF TAMIL NADU  
2021

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**FISHERIES AND FISHERMEN  
WELFARE DEPARTMENT**

**POLICY NOTE**

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**1. INTRODUCTION**

Fish is an important source of nutritious and protein rich food, which is also playing a crucial role in generating employment opportunities to the rural people of the State. This sector provides livelihood to about 13 lakh fishers and fish farmers in the marine and inland sectors. Tamil Nadu has rich and diverse fishery resources ranging from deep seas to lakes, reservoirs, ponds, rivers, back waters and has more biodiversity in terms of fish and shellfish species, which provides immense scope for development of capture as well as culture fisheries.

India is the third largest producer of fish in the World and occupies the second position in aquaculture production during 2017-18. The total

fish production of the country in 2019-20 was 14.16 million metric ton. Tamil Nadu ranks 2<sup>nd</sup> in total marine fish production of the country during 2019-20. The total fish production of Tamil Nadu was 7.23 lakh tons during 2020-21. The State exported 1.10 lakh tons of marine products and earned a foreign exchange of Rs.5,565.46 Crore during 2020-21.

Government reiterates its commitment to find pragmatic and permanent solution to the issues faced by our fishermen in Palk Bay by retrieving the Katchatheevu Island back to India and restoring the right to conduct fishing in the traditional historical fishing grounds of the Palk Bay. The safety of the fishermen at sea is also among the top priorities of the Government. In order to safeguard the fishermen at the time of distress, seamless communication network is to be strengthened. Conservation of fishery resources and effective implementation of

Tamil Nadu Marine Fishing Regulation Act (TNMFR), 1983 are the key activities of the Government to maintain the fishery resources in a sustainable manner. For the sustainable utilization of the underexploited deep sea fishery resources, incentivizing deep sea fishing will be carried out by the Government on a larger scale. The Government is also providing financial assistance for building fishing crafts, motorization of traditional crafts and fuel subsidy to marine fishing crafts.

To increase the inland fish production of the State, the Government is strengthening the infrastructure for fish seed production and fish seed rearing in both Government and Private sector and also extends assistance for inputs such as seed, feed and fishing implements. Government is also promoting farming of fast-growing fish varieties through intensive fish culture techniques like Cage culture and Re-

circulatory Aquaculture System (RAS). All the water bodies are being stocked with fish seeds to increase the overall inland fish production. The Government has taken steps to expand niche sectors like brackish water aquaculture, mariculture including seaweed culture and marine cage culture in the State.

The policy of Government is to accord top most priority for the welfare of the fishermen besides augmenting the overall fish production of the State from all the available water resources. The change in the nomenclature of Department into Fisheries and Fishermen Welfare depicts the commitment of the Government for the welfare of the fishermen. The comprehensive fisheries policy of the Government consists the perfect vision for development, management and regulation of inland and marine fishery resources including aquaculture in marine, freshwater and brackish water areas and their post-harvest management, strengthening

and modernisation of the value chain. Thus, Government focuses on use of advanced technologies and best management practices to increase the fish production in the sectors of marine, inland and brackishwater.

## **2. FISHERIES POLICY PERSPECTIVE**

The Fisheries policy perspective of the Government of Tamil Nadu is to ensure fishermen welfare, to augment the fish production, enhance the income of the fishers and 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 safety and sustainable fishing, 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 standards of fishers through 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 Government Fish Farms, Fishing Harbours (FHs)/Fish Landing Centres (FLCs), cold chain, value addition, forward and backward linkages.



5. Generating additional rural employment opportunities through fish culture.
6. Empowerment of fisherwomen in livelihood activities with a special focus on fisher widows.
7. Bridging the gap between the demand and supply of fish seed.
8. Harnessing the opportunity of expanding export market for high value fish and fishery products.
9. Conserving fishery resources, stock enhancement and management through enforcement of relevant Acts, Rules and Regulations.
10. Capacity building and skill upgradation for fishers and departmental officials (Human Resource Development), thrust in Research & Development and technological interventions in Fisheries sector.
11. Re-assessment of the fishery resources and their potential in the State of Tamil Nadu.

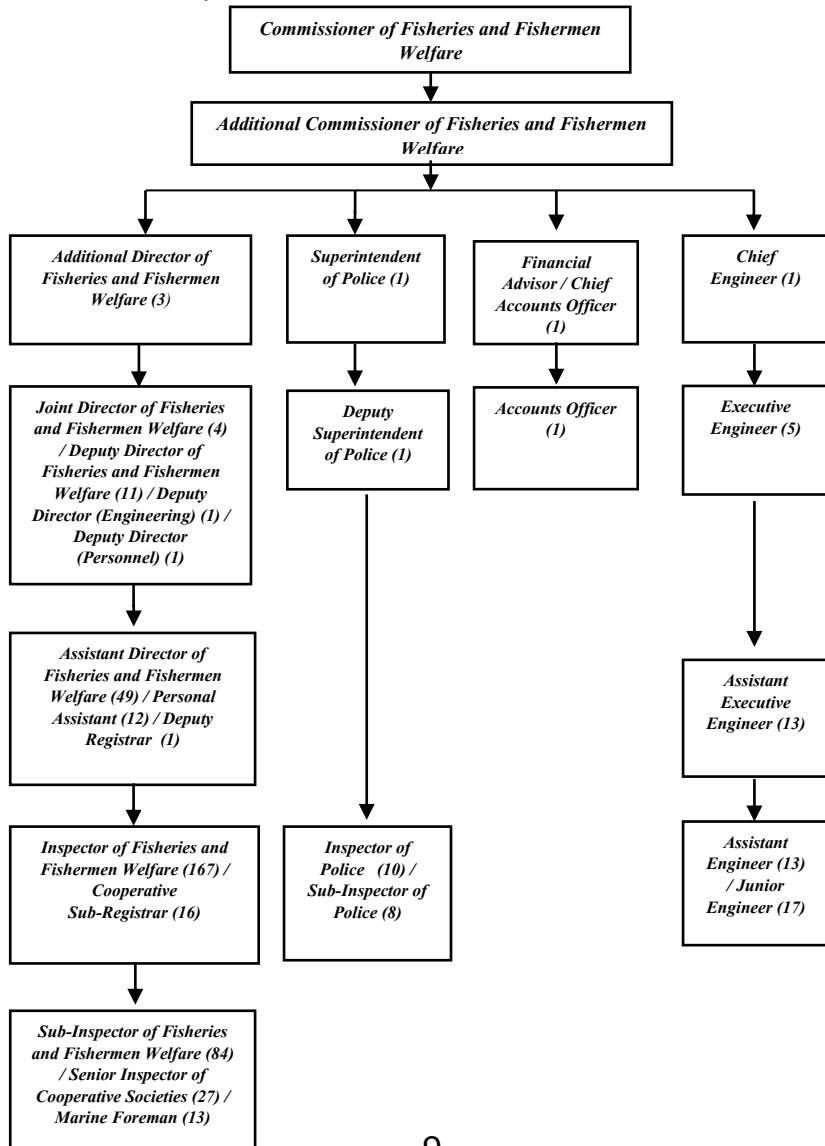
12. Ensuring transparency in implementation and monitoring of developmental schemes and welfare measures through e-Governance.

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

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

**Figure: 1**

**Organisational Set up of Fisheries and Fishermen Welfare Department**



The total sanctioned staff strength of the Fisheries and Fishermen Welfare Department is 1,798. 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 (Sanctioned+ deputation)</b>
1.	Commissioner of Fisheries and Fishermen Welfare	1
2.	Additional Commissioner of Fisheries and Fishermen Welfare	1
3.	Additional Director of Fisheries and Fishermen Welfare	2+1
4.	Joint Director of Fisheries and Fishermen Welfare	4+1
5.	Deputy Director of Fisheries and Fishermen Welfare	11+1
6.	Deputy Director (Personnel)	1
7.	Deputy Director (Engineering)	1
8.	Financial Advisor & Chief Accounts Officer	1
9.	Asst. Director of Fisheries and Fishermen Welfare / Asst. Director of Fisheries and Fishermen Welfare (Mechanical)	49+8
10.	Personal Assistant	12

<b>Sl. No</b>	<b>Name of the Post</b>	<b>No. of Posts (Sanctioned+deputation)</b>
11.	Deputy Registrar	1
12.	Accounts Officer	1
13.	Inspector of Fisheries and Fishermen Welfare	167
14.	Cooperative Sub-Registrar	16
15.	Marine foreman	13
16.	Sub-Inspector of Fisheries and Fishermen Welfare	84
17.	Senior Inspector of Cooperative Societies	27
18.	Fishery Assistant	168
19.	Ministerial and field Staff	1028
	<b>Total</b>	<b>1,588</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

<b>Sl. No</b>	<b>Name of the Post</b>	<b>No. of Posts (Sanctioned+deputation)</b>
9.	Divisional Accountant	4
10.	Technical Assistant	23
11.	Ministerial and supporting staff	9
	<b>Total</b>	<b>98</b>
<b>Marine Enforcement Wing</b>		
1.	Superintendent of Police	1
2.	Deputy Superintendent of Police	1
3.	Inspector of Police	10
4.	Sub Inspector of Police	8
5.	Head Constable / Constable	53
6.	Police Driver	19
7.	Superintendent	1
8.	Assistant	2
9.	Camp Clerk	17
	<b>Total</b>	<b>112</b>
	<b>Grand Total</b>	<b>1,798+11</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 5.48 lakh tons of marine fish production (2020-21). This supports the livelihood of 10.48 lakh marine fisherfolk. There are 5,893 mechanized and 42,337 traditional fishing crafts which are actively engaged in fishing.

Tamil Nadu possess 3.85 lakh hectares 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 available in the form of lagoons, estuaries and back waters, which are potential source of capture fisheries. There are 3,158 farms in an

area of 6,263 ha is under coastal aquaculture, mainly shrimp farming. The inland fisheries sector supports the livelihood of 2.36 lakh inland fisherfolk 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 spreading across 14 coastal districts. An overview of the Marine Fisheries sector is given in Table 2:

**Table: 2**  
**Marine Fisheries Statistics- 2020-21**

Coastal length	1,076 km
Exclusive Economic Zone (EEZ)	1.9 lakh sq. km
Continental shelf	41,412 sq. km
Number of Coastal Districts	14
Number of Fishing Villages	608
Marine Fisherfolk Population	10.48 lakh
Fishing Crafts Registered (online):	
1.Mechanised Fishing boats	5,893



2.Traditional Crafts (motorised and non- motorised)	42,337 (38,575 + 3,762)
<b>Infrastructural Facilities</b>	
Major Fishing Harbours	9 (Chennai, Poompuhar, Nagapattinam, Mookaiyur, Thoothukudi, Chinnamuttom, Muttom (PPP), Colachel and Thengapattinam)
Medium Fishing Harbours	3 (Pazhayar, Mallipattinam and Cuddalore)
Fishing Harbours - Under construction	6 (Thiruvottiyur Kuppam, Azhagankuppam- Alambaraikuppam, Vellapallam, Tharangambadi, Arcottuthurai and Nambiyar Nagar.
Fish landing centres / Jetties	53
Fish Landing Points	236
Marine Fish Production (2020-21)	5.48 lakh tons
Marine Products Export (2020-21)	Quantity: 1,10,023 MT* Value : Rs.5,565.46 crore

Source:

\* Marine Products Export Development Authority

## 4.2 Inland Fisheries

Tamil Nadu is endowed with rich inland water resources which includes reservoirs, long seasonal and short seasonal irrigation tanks and ponds which are suitable for both capture and culture fisheries.

An overview of the Inland Fisheries Sector is given in Table: 3.

**Table: 3**

### **Inland Fisheries Statistics- 2020-21**

Inland Fishery Resources	3.85 lakh ha
Reservoirs (62 Nos)	62,015 ha
Large irrigation and short seasonal tanks	2,67,746 ha
Brackish water area	56,000 ha
Population of inland fisherfolk	2.36 lakh
<b>Inland Fisheries Infrastructure</b>	
<b>Fish seed production Centres</b>	
i) Government fish farm	10

ii) TNFDC fish farm	1
iii) Private fish farm	49
<b>Fish seed rearing centres</b>	
i) Government fish farm	38
ii) TNFDC fish seed rearing farm	5
iii) Private fish seed farm	267
Inland Fish Production (2020-21)	1.75 lakh tons

The Government of Tamil Nadu is taking measures to increase the fish production through stocking of quality fish seeds in reservoirs, leasing of intensive fish culture tanks in Villupuram, Kallakurichi, Cuddalore, Madurai and Theni Districts, leasing of irrigation tanks through DFFDA and co-ordinating with other departments for leasing of water bodies under their control.

#### **4.3 Coastal Aquaculture & Brackishwater Fisheries**

Coastal Aquaculture has been recognized as an important sector for employment generation in

rural areas and a vital source of food supply for ensuring the nutritional security for growing population. In Tamil Nadu 1,956 shrimp farms are registered under Coastal Aquaculture Authority (CAA) with an extent of 3836.77 ha. There are 68 shrimp hatcheries cater to the needs of Tamil Nadu and also other States.

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

The following are the major activities of the Fisheries and Fishermen Welfare Department:

- i. Protection of traditional fishing rights of Tamil Nadu fishermen.
- ii. Ensuring fishermen safety at sea.
- iii. Search, Rescue and Rehabilitation measures during natural calamities and disasters.
- iv. Implementing various social security welfare schemes for fisherfolk.
- v. Enforcement of fisheries Acts and Rules.
- vi. Conservation and management of fishery resources.
- vii. Development of inland fisheries and aquaculture.
- viii. Development of infrastructure facilities.
- ix. Hygienic marketing of fish and fishery products and cold chain facilities.
- x. Special focus on alternative livelihood of fisherwomen.

- xi. Capacity building and skill development in fisheries sector.
- xii. Outreach and extension activities.
- xiii. Management of Fisheries Cooperatives.

## **5.1 Marine Fisheries Activities**

### **Welfare schemes for Marine fishers**

The Government always accords 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 and in a transparent manner, the Government disburses the financial assistance under various welfare schemes to the individual beneficiary's savings bank account directly through National Electronic Fund Transfer (NEFT). The details of various welfare schemes are given below:

## **I. STATE SCHEMES**

### **5.1.1 Financial assistance of Rs.5,000/- 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 61 days fishing ban period is implemented from April 15<sup>th</sup> to June 14<sup>th</sup> in the East Coast region and June 1<sup>st</sup> to July 31<sup>st</sup> in the West Coast region. To alleviate the sufferings of the poor fishermen crew / labourers who are involved in marine fishing activities, the Government of Tamil Nadu is extending fishing ban period relief to marine fishermen families since 2008.

For the year 2021-22, a sum of Rs.85.54 crore was disbursed to 1,71,076 fishermen families of 14 coastal districts.

### **5.1.2 Special allowance of Rs.5,000/- to marine fishermen families during lean fishing season**

To mitigate the sufferings of the marine fishermen families who are actually involved in marine fishing activities, the Government of Tamil Nadu is extending relief assistance of Rs.5,000/- each to marine fishermen families during lean fishing months.

For the year 2020-21, the special allowance of Rs.87.26 crore has been disbursed to 1,74,529 marine fishermen families of 14 coastal districts.

This scheme will be continued for the year 2021-22 also.

### **5.1.3 Savings-cum-Relief scheme for marine fisherwomen**

Under this scheme, fisherwomen contribute Rs.1,500/- as their share in 9 months. The State Government contributes Rs.3,000/- as matching grant. A sum of Rs.4,500/- including the



fisherwomen contribution is disbursed to the beneficiaries during the lean months.

For the year 2020-21, a sum of Rs.60.32 crore has been disbursed to 2,01,084 marine fisherwomen of 14 coastal districts.

This scheme will be continued for the year 2021-22 also.

#### **5.1.4 Supply of sales tax exempted High Speed Diesel (HSD) to fishing crafts**

The Government of Tamil Nadu provides sales tax exempted diesel to registered mechanized and motorized fishing crafts, subject to a maximum of 18,000 litres per boat per year (during active 10 fishing months) to mechanized fishing boats and subject to a maximum of 4,000 litres per craft per year to motorized country crafts.

During the year 2020-21, 97,256 KL of diesel have been supplied with a total subsidy amount of Rs.157.68 crore. This scheme is being implemented during 2021-22 also.

### **5.1.5 Supply of subsidized industrial kerosene to the traditional fishing crafts**

The Government is providing industrial kerosene of 3,400 litres per motorized country craft per year at the subsidized rate of Rs.25/- per litre to the fishing crafts of Thoothukudi, Tirunelveli and Kanniyakumari Districts.

During the year 2020-21, 12,246 KL of industrial kerosene have been supplied with a total subsidy amount of Rs.6.30 crore. This scheme is being implemented during 2021-22 also.

### **5.1.6 Daily relief to marine fishermen apprehended by other countries while engaged in fishing**

The Government supports the livelihood of the families of fishermen who are apprehended by other countries while fishing by providing daily allowance of Rs.250/-. The scheme is being implemented through the District Collectors. For

the year 2020-21, a sum of Rs.2.90 lakh has been released as relief to the 36 fishermen families.

This scheme will be continued during 2021-22 as well.

**5.1.7 Daily relief to the families of missing fishermen while engaged in fishing.**

The State Government is providing daily relief assistance of Rs.250/- (Rs.7,500/- per month) to the families of fishermen who went missing while fishing at sea using all types fishing crafts for the period of two years or till they receive monetary benefits through Group accident Insurance scheme/ Tamil Nadu Fishermen Welfare Board. For the year 2020-21, a sum of Rs.15.03 lakh has been released as daily relief to the 36 fishermen families.

This scheme will be continued during 2021-22 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 Chief Minister's Public Relief Fund to help the family of fishermen who die as a result of shooting at sea. In the case of the deceased fisherman being the sole breadwinner of the family, an ex-gratia amount of Rs.5 lakh is provided. If the fishermen sustain major and minor injuries, an ex-gratia amount of Rs.50,000/- and Rs.20,000/- is provided respectively.

The Government of Tamil Nadu has provided an ex-gratia amount of Rs.40 lakh at the rate of Rs.10 lakh each from the Chief Minister's Public Relief Fund to help the

families of four deceased fishermen who died in the incident of Sri Lankan Naval Ship collision with fishing boat.

#### **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**

In order to support the full expenses of the higher education of children of the missing/deceased fishermen due to Sri Lankan Naval attack, a corpus fund of Rs.25 lakh has been created in Tamil Nadu Fishermen Welfare Board.

#### **5.1.10 Providing 50% subsidy for fishermen to procure new Tuna Long liner-cum-Gill netter boats**

To support the fishers to harvest the relatively underexploited oceanic fishery resources like Tuna and Tuna like fishes, the Government is implementing the scheme of 'Providing 50% subsidy for fishermen to procure New Tuna Long liner cum Gill Netter' boats. Under this scheme 50% of the estimated unit cost of Rs.60 lakh or

upto a maximum of Rs.30 lakh/unit is provided as subsidy for construction of new Tuna Long liner cum-Gill Netter boat.

Under this scheme, administrative sanction for a sum of Rs.51.30 crore was accorded by the Government for constructing 171 boats and Rs.33.32 crore has been released in two instalments. Constructions of 19 boats are in various stages and an amount of Rs.26.97 crore has been released as subsidy to 85 completed boats. Work order will be issued for the remaining 67 boats after scrutinization.

## **II. Centrally Sponsored Schemes**

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

Under this scheme, a fisherman contributes Rs.1,500/- as his share in 9 months. The contribution is matched with the total amount of Rs.3,000/- (Rs.1500/- Union Government + Rs.1,500/- State Government). A sum of

Rs.4,500/- including the fishermen contribution is disbursed to the beneficiaries during the lean months.

Under this scheme, for the year 2020-21, an amount of Rs.60.08 crore has been disbursed to 2,00,268 marine fishermen of 14 coastal districts.

This scheme will be continued for the year 2021-22 also.

#### **5.1.12 Group Accident Insurance Scheme for fisherfolk**

This scheme is being implemented through National Fisheries Development Board (NFDB) under Pradhan Mantri Matsya Sampada Yojana (PMMSY). Under this scheme, an amount of Rs.5 lakh to deceased fishermen and an amount of Rs.2.50 lakh to injured fishermen is provided as relief assistance. Action is being taken to pay a sum of Rs.1.557 crore as State share towards insurance premium covering 5,37,054 fishers for the year 2021-22.

### **5.1.13 Motorization of Traditional Crafts**

Subsidy assistance of 40% of the unit cost of the engine or Rs.48,000/- whichever is less is being provided towards the purchase of Out Board Motors (OBM) / In Board Engines (IBE), for the traditional crafts of fishermen.

During the year 2020-21, under State scheme, 1,000 no. of OBM/IBE have been supplied at a total subsidy of Rs.4.80 crore. This scheme will be continued in the upcoming years.

### **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 by Sri Lankan Navy while fishing in their traditional waters. The prolonged incarceration of our fishermen and their fishing boats by the Sri Lankan Government causing a sense of anxiety and insecurity among the fishermen



community of Tamil Nadu as 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.

Under this scheme, the unit cost of Tuna long-liner cum gill netter is Rs.80 lakh per boat. Subsidy assistance of 50% from Government of India, 20% from Government of Tamil Nadu, 10% beneficiary contribution and the balance 20% shall be met from Institutional financing.

The Government has sanctioned Rs.286 crore for diversification of 500 Palk Bay trawlers in the first phase. Out of 693 applications received from fishermen, tripartite agreements have been signed for 448 beneficiaries and work orders have been issued for 103 boats. Construction of 42 deep sea fishing vessels have been completed and

launched and the remaining 43 boats are in various stages of construction. A total subsidy amount of Rs.28.62 crore has been released.

#### **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**

In order to improve the catch per unit effort (CPUE) of the traditional fishermen, 40% subsidy assistance for replacing the catamaran with FRP boat with nets, out board engine and insulated ice boxes are being provided.

Under PMMSY scheme, administrative sanction was provided for an amount of Rs.8.50 crore for the procurement of FRP boats up to 10m OAL, which includes OBM/IBE, fishing nets and insulated ice boxes as a replacement to wooden boats to the artisanal fishermen of Tamil Nadu. Under this scheme, on the total unit cost of Rs 4.20 lakh, 40% subsidy assistance to a

maximum of Rs.1.70 lakh per unit is provided. During the year 2019-20, 100 FRP boats with engine, nets and ice boxes have been provided with subsidy assistance of Rs.1.70 crore.

Further 100 FRP boats with engine, nets and ice boxes with 40% subsidy assistance will be provided during the year 2021-22.

## **5.2 Fishing Regulation and Law 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 from 2011. A total of 5,893 mechanised fishing boats, 38,575 motorised and 3,762 non-motorised traditional crafts have been registered in "RealCraft" website.

### **5.2.2. Establishment of dedicated Marine Enforcement Wing for enforcing TNMFR Act**

In order to enforce the Tamil Nadu Marine Fishing Regulation (TNMFR) Act (1983), to prevent illegal fishing, to protect fishery resources and to regulate the fishing, the Government established an Enforcement Wing with 112 staff including 92 police personnel. The Marine Enforcement Wing is actively involved in enforcing the Tamil Nadu Marine Fishing Regulation (TNMFR) Act (1983) along the 14 coastal districts in the State with permanently created posts such as, 1 Superintendent of Police, 1 Deputy Superintendent of Police, 10 Inspectors of Police, 8 Sub-Inspectors of Police, 53 Police Constables and 19 Police Drivers.

The main functions of the Marine Enforcement wing is to conduct patrolling in the sea to enforce the regulations of fishing and to prevent illegal fishing, destructive fishing and the

use of banned fishing nets and to convey the information about the anti-social activities and intelligence gathered during patrolling to Coast Guard and local Police authorities for further necessary action.

The Government have accorded financial sanction of a sum of Rs.8.65 crore towards recurring expenditure related to Marine Enforcement Wing. Also, 19 vehicles were purchased at a cost of Rs.1.90 crore for the use of Marine Enforcement Wing. This Marine Enforcement Wing is functioning from 1.12.2019.

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

Conservation and stock enhancement measures such as imposing seasonal fishing ban, stock enhancement, sea ranching programme, habitat development like installation of artificial reefs and diversified fishing methods are being

implemented by the Fisheries and Fishermen Welfare Department.

Marine fisheries sector is effectively managed with an Eco system approach and people's participatory approach under co-management principles. This involves the stakeholders to conserve the fisheries resources effectively in their region.

### **5.3.1 Implementation of Uniform Fishing Ban Period**

To conserve marine fishery wealth, the Government of Tamil Nadu is imposing ban on fishing by Mechanized fishing boats and Trawlers in the territorial waters of the State every year from 2001. Traditional fishing crafts are exempted from the above fishing ban. The fishing ban period is enforced for 61 days (i.e., from April 15th to June 14th in East Coast region and from June 1<sup>st</sup> to July 31<sup>st</sup> in the West Coast region).

### **5.3.2 Ban on destructive fishing gears**

In order to conserve the marine resources in territorial waters, to protect the interests of the traditional fishermen, to maintain law and order problem in the territorial waters, to conserve the ecology and the ecosystem, the Government has imposed a ban on the use of purse seine and pair trawl by any type of fishing vessel in Tamil Nadu Coast.

Further, the officials from Indian Navy, Coast Guard, Revenue, Police, Coastal Security Group, Marine Enforcement Wing and Fisheries & Fishermen Welfare Department engage in joint patrolling to curb the illegal usage of banned destructive fishing nets.

### **5.3.3 Conservation of sea turtles**

To conserve the Sea turtles, the Government has notified to fix the Turtle Excluding Device (TED) before the cod end

during the specified period and prohibited fishing in a radius of 5 nautical miles around the potential turtle nesting and breeding grounds during the breeding season i.e., for a period of four months from the 1<sup>st</sup> January to 30<sup>th</sup> April of every year (both days inclusive).

#### **5.4 Disaster preparedness, Rescue and Rehabilitation measures**

To ensure the safety and security of fishermen at times of natural disaster and adverse weather conditions, the Department of Fisheries has undertaken the following measures:-

- a. Dissemination of weather information and cyclone warnings to fishers
- b. Established a Central Control Room at the Commissionerate of Fisheries and Fishermen Welfare with essential communication equipments and is functioning round the



clock provided with a dedicated telephone line (No.044-29530392)

- c. Coordinating with all security agencies such as Coast Guard / Coastal Security Group / Navy in Search and Rescue (SAR).
- d. 30 Inflatable Rubber boats have been procured and supplied to the coastal districts for use in times of flood and cyclone.

#### **5.4.1 Measures for communication and safety of fishermen at sea**

##### **5.4.1.1 Providing Wireless communication networking facilities**

In order to ensure the safety of fishermen in sea, under the “Fisheries Management for Sustainable Livelihood (FIMSUL)” Project, networking facilities throughout the 14 coastal districts of Tamil Nadu with 18 communication towers and control rooms were established.

Control rooms have been established in 15 locations for effective communication between shore station and fishing boats inside the sea. A central control room has been established at the Commissionerate of Fisheries and Fishermen Welfare, Chennai.

The Department of Fisheries and Fishermen Welfare provided 20,930 nos. of VHF sets among which 17,795 nos. of 5-watt hand held VHF sets to motorized fishing crafts at 100% grant and 3,135 nos. of 25-watt VHF boat sets to mechanized fishing crafts with 75% subsidy.

#### **5.4.1.2 Installation of “Transponders” in Mechanized fishing boats**

The Government of India, through ISRO (Indian Space Research Organization) has developed Transponders as a means of communication and tracking system for deep sea going fishermen which will help monitoring the fishing vessels and render assistance at the time

of distress in deep sea up to 200 Nautical Miles. 507 mechanized fishing boats of Tamil Nadu from Chennai, Cuddalore, Nagapattinam, Thoothukudi and Kanniyakumari districts have been fitted with transponders for conducting trials.

The Government of India has sanctioned an amount of Rs.18.01 crore towards installing transponders in 4,997 mechanized fishing boats of Tamil Nadu. The Indian Space Research Organisation has awarded work order for procuring and installing transponders in fishing boats. Transponders will be provided to all mechanized fishing boats operated in Tamil Nadu in the year 2021-22.

#### **5.4.1.3 Providing Satellite Phones, 'NAvic' and 'NAVtex'**

In order to enhance and ensure the safety and security of fishermen while venturing into the deep sea, in the year 2018-19 communication equipment, viz. 160 Satellite

phones, 200 NAVic and 80 NAVtex message receivers have been installed in 80 clusters of boats engaged in deep sea fishing with 100% subsidy assistance at a total cost of Rs.2.28 crore.

The scheme for providing 500 Satellite Phones to mechanised fishing boats of Tamil Nadu, with 75% subsidy of the unit cost of Rs.1 lakh is being implemented at a total project cost of Rs. 5 crore. Till date, 440 satellite phones have been distributed to deep sea fishing boats. Remaining satellite phone will be issued shortly.

#### **5.4.1.4 Launching of Web GIS based Mobile app “Thoondil”**

To ensure the safety and security of the fishermen by monitoring the movements of fishing vessels and registering the crews venturing for fishing, the Department of Fisheries in association with the National Centre for Coastal Research (NCCR), Ministry of Earth

Sciences (MoES) and Indian National Centre for Ocean Information Services (INCOIS) and Indian Meteorological Department, Government of India, created a Mobile and web based application "THOONDIL", a Web GIS based Decision Support System.

The "THOONDIL" - Web GIS based Decision Support System was developed to assist the State administration and equip the fishermen by dispensing vital information on real time positioning, navigation to safe locations, facility to mark fishing grounds, Potential Fishing Zones (PFZ) from INCOIS, details on weather forecast and fishing trip records etc., which can be used by the fishermen at sea to ensure their own safety.

The details of mechanized fishing boats and crew operating in Tamil Nadu are being registered in "Thoondil" application for better monitoring and surveillance.

## **5.4.2 Relief measures to the victims of disasters**

### **5.4.2.1 Revolving Fund**

Revolving Fund has been created by the Government of Tamil Nadu for providing immediate relief assistance to the fishermen whose boats/ fishing implements/ houses are damaged due to unforeseen circumstances. An amount of Rs.10 lakh each to the 14 coastal Districts totalling to Rs.1.40 crore was provided as revolving fund to the coastal District Collectors.

During 2020-21, Rs.29.39 lakh has been released as relief to 124 fishermen whose fishing boats were damaged due to inclement weather conditions.

### **5.4.2.2 Relief measures to the victims of cyclones**

#### **'Nivar' cyclone:**

The very severe cyclonic storm '**NIVAR**' made its landfall between Puducherry and Marakanam on 25.11.2020 causing extensive damages to the fishing crafts, implements and fisheries infrastructure along the coastal districts from Tiruvallur to Nagapattinam district.

To provide relief assistance to the fishers affected by the Nivar cyclone, the Government released a total sum of Rs.212.63 lakh under State Disaster Relief Fund (SDRF).

#### **'Tauktae' cyclone:**

Due to the efforts taken by the Government, out of 247 Tamil Nadu fishing boats engaged in fishing in Arabian Sea, 246 fishing boats were safely reached nearest shore during the cyclone.

A fishing boat from Nagapattinam district ventured for fishing from Kochi fishing harbour, Kerala state reportedly sunken near Lakshadweep Island along with 9 fishermen and 12 Tamil Nadu fishermen along with 4 West Bengal fishermen ventured for fishing from Beypore fishing harbour of Kerala State were reported missing.

The Hon'ble Chief Minister of Tamil Nadu requested the Hon'ble Defence Minister, Government of India for speedy search and rescue of missing fishermen. In both the incidents, the 21 Tamil Nadu fishermen could not be traced out; hence, the Government of Tamil Nadu has sanctioned a sum of Rs.4.20 crore as relief, Rs.20.00 lakh each to the bereaved families of the missing fishermen due to Tauktae cyclone.



### 5.4.2.3 'Gaja' Cyclone Reconstruction, Rehabilitation and Rejuvenation Project (GRRRP)

To rehabilitate, reconstruct and rejuvenate the livelihood of fishers of Gaja Cyclone affected districts, the Government has sanctioned an amount of Rs.31.15 crore towards implementation of Gaja Cyclone Reconstruction, Rehabilitation and Rejuvenation Project (GRRRP). This project includes 7 components which are as follows.

**Table: 4**  
**(Rs. In Lakh)**

<b>Sl No</b>	<b>Components</b>	<b>Government share (75%) (Rs in Lakh)</b>	<b>Beneficiary share (25%) (Rs in Lakh)</b>	<b>Total amount (Rs in Lakh)</b>
1.	Establishment of Hygienic fish drying platforms and solar dryers	272.28 (100%)	0.00	272.28
2.	Deployment of Artificial Reefs as a measure of restoration of marine environment	1850.00 (100%)	0.00	1850.00
3.	Establishment of fish seed bank for	593.46	197.82	791.28

	Marine/Brackish water fish			
4.	Integrated Mariculture Systems as a Livelihood Activity and Sustainable Fisheries Management of the Fishers	156.45	52.15	208.60
5.	Promotion of Bivalve farming as alternative livelihood	48.24	16.08	64.32
6	Providing Mobile fish kiosks to the fisher Youth	180.00	60.00	240.00
7.	Promotion of Seaweed culture	15.00	4.50	19.50
	<b>Total</b>	<b>3115.43</b>	<b>330.55</b>	<b>3445.98</b>

- 8 Hygienic fish drying platforms and 4 solar dryers have been constructed in Nagapattinam, Thanjavur, Pudukkottai, Cuddalore and Ramanathapuram districts.
- Artificial reefs are being deployed in 60 locations of the Gaja Cyclone affected districts viz., Cuddalore, Pudukkottai, Ramanathapuram, Thanjavur, Tiruvarur and Nagapattinam.

- For enhancement of fisherfolk livelihood, the integrated component viz., Establishment of Marine Cage Fish Culture, Integrated Mariculture unit and mobile kiosks for fisher youth are provided to a Joint Liability Group comprising 15 members. 27 such units have been established in the 5 Gaja Cyclone affected Districts viz., Cuddalore, Pudukkottai, Ramanathapuram, Thanjavur and Nagapattinam.
- 72 women groups will be supplied 1,200 rafts for seaweed farming as an alternative livelihood activity.
- 6 women groups of Pudukkottai and Cuddalore districts will be provided with 144 rafts for bivalve farming.

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

### **5.5.1 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 topmost on the agenda of the Government of Tamil Nadu.

The Nagapattinam, Thanjavur, Tiruvarur, Pudukkottai and Ramanathapuram Districts of Palk Bay have more than 3,500 Mechanized Fishing Boats and 9,000 traditional crafts engaged in fishing in the Palk Bay area. The accidental IMBL crossings lead to assault and attack by the Sri Lankan Navy causing strain in the bilateral relations between India and Sri Lanka.

The Government has been taking pro-active steps for the retrieval of "Katchatheevu Island" deed unilaterally given by the Government of India to Sri Lanka in 1974, so as to protect the traditional fishing rights of Tamil Nadu fishermen. An unanimous resolution was also passed in the Tamil Nadu Legislative Assembly in 2011 to implead the Revenue Department in the SLP

(Civil) No.561 of 2008 filed before the Supreme Court of India in 2008, with regard to its retrieval. Accordingly, the Government of Tamil Nadu impleaded itself in this case.

Further, the Government unanimously passed another resolution in the Tamil Nadu Legislative Assembly, urging the Government of India to retrieve Katchatheevu, questioning the legal validity of the 1974 and 1976 Indo-Sri Lankan Agreements, in the light of the judgment issued by the Hon'ble Supreme Court of India in 1960 in "Berubari" case wherein it was pronounced that any agreement on the cession of Indian Territory to another country should be ratified by the Parliament through an amendment of the Constitution.

The Government of Tamil Nadu also reiterated to the Hon'ble Prime Minister that the Government of India should take necessary steps

to abrogate the 1974 and 1976 agreements and to retrieve Katchatheevu and restore the traditional fishing rights of Indian fishermen from Tamil Nadu.

Further, it has been pointed out to the Sri Lankan Government that curtailing and restricting the access that they have traditionally and historically enjoyed to the Katchatheevu has been viewed by fishermen of Tamil Nadu as the policy of the Sri Lankan Government.

The Hon'ble Chief Minister of Tamil Nadu has requested the Hon'ble Prime Minister of India in the Memorandum presented on 17.06.2021 for a permanent solution by restoring India's sovereignty over Katchatheevu, thereby restoring Tamil Nadu fishermen's rights to fish in their traditional waters.

### **5.5.2 Efforts taken by the Government to prevent harassment and release of Tamil Nadu fishermen and their fishing boats**

The right of life, livelihood and the right to carry on fishing in the traditional waters of Palk Bay by the Tamil Nadu fishermen are continuously infringed upon by the Sri Lankan Navy's recurrent unabated apprehension, attack and harassment of Tamil Nadu fishermen.

With a deep sense of concern on the repeated incidents of attack, harassment and apprehension of the Tamil Nadu fishermen by the Sri Lankan Navy and prolonged incarceration of our innocent fishermen in Sri Lankan jails, the Government of Tamil Nadu has written as many letters bringing the above incidents to the notice of the Hon'ble Prime Minister of India.

Presently, there are no fishermen in the Sri Lankan custody and continuous efforts are being taken to release the 63 salvageable

fishing boats detained by the Sri Lankan Government during the past two years.

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

The High-Level Committee meetings on bilateral relations were held to help reduce the harassments/assaults/ apprehensions of the Tamil Nadu fishermen by the Sri Lankan Navy. Joint Working Group (JWG) on Fisheries Meetings and Fishermen Level talks were also arranged to release the fishermen and fishing boats of poor fishermen and protocols to be followed during the arrest and apprehension. So far, 4 rounds of India and Sri Lanka Joint Working Group meetings were conducted. During these meetings the issue of release and repatriation of Tamil Nadu fishermen and their fishing boats with fishing implements apprehended by the Sri Lankan Navy were reiterated.



The Government of Tamil Nadu is committed to continue the bilateral talks.

## **5.6 Coastal Aquaculture and Mariculture:**

### **5.6.1 Coastal Shrimp farming**

In Tamil Nadu, land-based shrimp aquaculture is the main activity with 1,956 number of farms accounting for 3,836.77 ha area registered under Coastal Aquaculture Authority. 68 Shrimp hatcheries in the State cater to the seed requirements of our needs as well as contribute to the requirements of the neighbouring States.

In order to undertake *Penaeus vannamei* farming, Letter of Permission (LOP) is also provided by CAA based on the recommendation of District Level Committee (DLC).

Steps will be taken to evolve proper land leasing policy for lands under the Control of Government to promote shrimp farming.

Promotion of Brackishwater aquaculture will be encouraged in fallow lands unfit for crop cultivation and development of Exclusive/ Special Brackishwater Aquaculture Zones will be promoted in large land parcels.

Private sector will be encouraged to establish brood banks, SPF hatcheries for shrimp, finfish hatchery for candidate species, feed mills using indigenous raw materials.

In order to promote this sector, the Government has completed a well-structured Resource mapping study in six districts viz., Villupuram, Cuddalore, Thanjavur, Tiruvarur, Pudukkottai and Thoothukudi at a total cost of Rs. 50 lakh through Central Institute of Brackishwater Aquaculture (CIBA).

Feasibility studies have been taken up through consultants at a cost of Rs.20 lakh to develop aquaculture parks in the coastal districts.

This study will aid in developing the unproductive, unutilized lands for productive purpose and create new entrepreneurial activity in the brackish water aquaculture Sector.

### **5.6.2 Mariculture Activities**

Mariculture activities aid to conserve the fishery wealth and enhance the fish production. Mariculture enables the fishers to switch over from the concept of capturing and diversification into stocking and harvesting.

In accordance to the National Mariculture Policy which is under consideration by the Government of India, the state is also promoting the Mariculture sector through utilizing the available natural resources in sustainable manner.

### **5.6.3 State's Initiatives for Mariculture Development**

Suitable sites will be demarcated for different Mariculture activities based on scientific

criteria including the socio-cultural attributes and other logistics.

#### **5.6.4. Seaweed Culture**

In the State of Tamil Nadu, farmed seaweed production of 400 tonnes and natural collection of 37,000 tonnes have been recorded. 2,044 fisherfolk are involved in seaweed culture. Under various State and Union Government schemes, 6,000 numbers of seaweed rafts have been distributed to coastal fisherwomen at a cost of Rs.99 lakh for undertaking seaweed culture. An exclusive sap extraction unit for producing value added products from seaweed has been established at a cost of Rs.3.96 crore through FIMSUL- II project and is being operated by fisherwomen.

In order to expand seaweed culture by exploring the untapped seaweed resources in the potential coastal districts of Tamil Nadu through

scientific and traditional seaweed farming, it has been proposed to establish a multipurpose seaweed park in Tamil Nadu encompassing the following major activities.

1. Identification of seaweed resources in Tamil Nadu coast
2. Establishment of Research and Development facility for seaweed sector
3. Skill development and capacity building
4. Production of quality seaweed seeds
5. Promotion of seaweed farming
6. Establishment of shore-based infrastructure facility for seaweed farming
7. Exclusive Seaweed Park for seaweed processing and value addition.
8. Storage and marketing facilities
9. Monitoring and surveillance of seaweed sector.

### **5.6.5. Open sea cage culture**

Open sea Cage Farming has emerged as a viable option to increase production of high value marine finfish and shellfish. Suitable commercially important fish species for open sea cage farming are Cobia, Sea bass, Groupers, Pompano and Lobsters.

There is tremendous scope for the further expansion of cage farming in Tamil Nadu to minimize the fishing pressure in inshore waters. Under various State and Union Government schemes, so far 210 cages at a cost of Rs.897.29 lakh have been distributed to coastal fisherfolk for undertaking open sea cage culture, which is a self-employment activity for generating income through alternate livelihood activity.

The state has established a marine finfish rearing centre for rearing marine finfish seeds to

cater to the needs of the marine cage farming at Mandapam in Ramanathapuram District.

## **5.7 Development of Fisheries Infrastructure**

In order to improve the fish handling infrastructure facilities on par with global standards, so as to ensure the availability of quality fish to the domestic as well as international markets, the Government is sourcing funding support from various agencies and establishing these infrastructural facilities. These efforts help in enhancing the export avenues and better realization price for the fishermen for their catch.

### **5.7.1 Construction of Fishing Harbour at Tharangambadi in Mayiladuthurai District**

A fishing harbour at Tharangambadi, Mayiladuthurai District is being established at a cost of Rs.120 crore, for which the Government has accorded administrative sanction under

Fisheries and Aquaculture Infrastructure Development Fund (FIDF). The harbour is designed with a Northern breakwater to a length of 330 m, Southern breakwater upto 1,060m and other land side facilities for the hygienic handling of catches. The work is in progress and 90% of the works have been completed.

### **5.7.2 Construction of Tuna Fishing Harbour at Thiruvottiyur Kuppam in Tiruvallur District**

Based on the detailed project proposal for the construction of Tuna Fishing Harbour at Thiruvottiyur Kuppam in Tiruvallur District, the Government has accorded administrative sanction for Rs.200 crore under Fisheries and Aquaculture Infrastructure Development Fund (FIDF). The harbour will have Northern breakwater to a length of 510m, Southern breakwater upto 849m and other landside facilities for the hygienic handling of Tuna and



deep sea fish varieties. The work is in progress and 70% of the works have been completed.

### **5.7.3 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). This Fishing harbour is designed with Northern breakwater to a length of 1,080m and Southern breakwater to a length of 1,300m and 240m length Diaphragm wall and other land side facilities for hygienic handling of catches. The works are in progress.

### **5.7.4 Renovation of Fishing Harbour at Mudhunagar in Cuddalore District**

The Government has accorded

administrative sanction for Rs.100 crore under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for the renovation of Fishing Harbour at Mudhunagar in Cuddalore District. The renovation work consists of water side facilities such as Diaphragm wall to a length of 1,040 m, 600m Retaining wall, additional facilities and other land side facilities for hygienic handling of fish catches. The Government so far released a sum of Rs. 80 crore for this work. The work is in progress and 90% of the works have been completed.

#### **5.7.5 Establishing Fishing Harbours in Kaluveli waters at Azhagankuppam in Villupuram District and Alambaraikuppam in Chengalpattu District**

The Government has accorded administrative sanction of Rs.235 crore for the construction of Fishing Harbours in Kaluveli waters at Azhagankuppam in Villupuram District and Alambaraikuppam in Chengalpattu District

under Fisheries and Aquaculture Infrastructure Development Fund (FIDF). State level CRZ clearance has been obtained. This project is designed with water side facilities such as Training Wall 900 m, Shore Protection Structure 300 m, Diaphragm wall 1,100 m, Slipway 2 nos., Dredging & reclamation, Revetment 400 m and other land side facilities for hygienic handling of catches. Preliminary works are in progress.

#### **5.7.6 Construction of Fishing Harbour at Arcottuthurai in Nagapattinam District**

The Government has accorded administrative sanction for the construction of Fishing Harbour at Arcottuthurai in Nagapattinam District at an estimated cost of Rs. 150 crore under Fisheries and Aquaculture Infrastructure Development Fund (FIDF). State level CRZ clearance has been obtained. This project is designed with Marine Northern Breakwater-1,650 m, Southern Breakwater-2,000m,

Jetty -340 m and Sloping Hard, Dredging and reclamation and other land side facilities for hygienic handling of catches. The works are in progress.

#### **5.7.7 Extension of Main breakwater of Thengapattinam Fishing Harbour in Kanniyakumari District**

The Government has accorded administrative sanction for Rs.77 crore under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for the extension of main breakwater of Thengapattinam Fishing Harbour for a length of 200m in Kanniyakumari District. Preliminary works are in progress.

#### **5.7.8 Providing additional infrastructure facilities, forward and backward linkages to the Thengapattinam Fishing Harbour in Kanniyakumari District**

The Government has accorded administrative sanction for Rs.60 crore under

Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for providing additional infrastructure facilities, forward and backward linkages to the Thengapattinam Fishing Harbour in Kanniyakumari District. Preliminary works are in progress.

#### **5.7.9 Extension of T-Jetty at Tharuvaikulam in Thoothukudi District**

The Government has accorded administrative sanction for Rs.10 crore under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for the extension of T-Jetty at Tharuvaikulam in Thoothukudi District. Preliminary works are in progress.

#### **5.7.10 Providing additional berthing facilities by providing Wharf at Thoothukudi Fishing Harbour in Thoothukudi District**

The Government has accorded administrative sanction for Rs.25 crore under

Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for providing additional berthing facilities by providing wharf at Thoothukudi Fishing Harbour in Thoothukudi District. Preliminary works are in progress.

#### **5.7.11 Construction of Fish Landing Centre at Keelamunthal in Ramanathapuram District**

The Government has accorded administrative sanction for Rs.10 crore under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for the construction of Fish Landing Centre at Keelamunthal in Ramanathapuram District. Preliminary works are in progress.

#### **5.7.12 Construction of Fish Landing Centres at Mandapam (North) and (South) in Ramanathapuram District**

The Government has accorded administrative sanction for Rs.20 crore under

Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for the construction of Fish Landing Centres at Mandapam (North) and (South) in Ramanathapuram District. Preliminary works are in progress.

#### **5.7.13 Development of Forward and Backward Linkages, Cold Chain facilities and expert infrastructure in Mookaiyur Fishing Harbour in Ramanathapuram District**

The Government has accorded administrative sanction for Rs.20 crore under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for the development of Forward Backward Linkages, Cold Chain facilities and expert infrastructure in Mookaiyur Fishing Harbour in Ramanathapuram District. Preliminary works are in progress.

#### **5.7.14 Providing additional Auction Hall, Repairing the damaged pavement, Street light arrangements and**

### **dredging and desilting of berthing channel at Nagapattinam Fishing Harbour in Nagapattinam District**

The Government has accorded administrative sanction for Rs.6 crore under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for providing additional Auction Hall, repairing the damaged pavement, Street light arrangements and dredging and desilting of berthing channel at Nagapattinam Fishing Harbour in Nagapattinam District. Preliminary works are in progress.

### **5.7.15 Construction of Fish Landing Centre at Vanagiri Village in Mayiladuthurai District**

The Government has accorded administrative sanction for Rs.8 crore under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for construction of Fish Landing Centre at Vanagiri Village in Mayiladuthurai District. Preliminary works are in



progress.

### **5.7.16 Construction of Fish Landing Centres at Kottaipattinam, Vadakkammappattinam and Puthukudi villages in Pudukkottai District**

The Government has accorded administrative sanction for Rs.6 crore under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for construction of Fish Landing Centres at Kottaipattinam, Vadakkammappattinam and Puthukudi villages in Pudukkottai District. Preliminary works are in progress.

### **5.7.17 Construction of Fish Landing Centre at Aruvikarai village in Tirunelveli District**

The Government has accorded administrative sanction for Rs.10 crore under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for construction of Fish Landing Centre at Aruvikarai village in Tirunelveli District. Preliminary works are in progress.

### **5.7.18 Construction of Fish Landing Centre at Keelathottam village in Thanjavur District**

The Government has accorded administrative sanction for Rs.8 crore under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for construction of Fish Landing Centre at Keelathottam village in Thanjavur District. Preliminary works are in progress.

### **5.7.19 Providing additional facilities to Fish Landing Centres at Portonovo Annankovil and Mudasalodai villages in Cuddalore District**

The Government has accorded administrative sanction for Rs.19.50 crore under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for providing additional facilities to Fish Landing Centres at Portonovo Annankovil and Mudasalodai villages in Cuddalore District. Preliminary works are in progress.

### **5.7.20 Construction of Groynes and Landing facilities to prevent further erosion of Fish Landing Centre at Periyathalai in Thoothukudi District**

The Government has accorded administrative sanction of Rs.29.89 crore for the construction of Groynes and Landing facilities to prevent sea erosion of Fish Landing Centre at Periyathalai in Thoothukudi District under NABARD-RIDF. 90% of the works have been completed and further works are in progress.

### **5.7.21 Construction of Northern Breakwater and Dredging of Barmouth for improvement of Fish Landing Centre at Nagore Village in Nagapattinam District**

The Government has accorded administrative sanction of Rs.19.87 crore for the construction of Northern Breakwater and Dredging of Barmouth and improvement of Fish Landing Centre at Nagore Village in Nagapattinam District under NABARD-RIDF. 18%

works have been completed and remaining works are in progress.

**5.7.22 Providing approach road to Erayumanthurai side of Thengapattinam Fishing Harbour**

The Government has accorded administrative sanction of Rs.1.71 crore for providing approach road to Erayumanthurai side of Thengapattinam Fishing Harbour under NABARD-RIDF. The work is in progress.

**5.7.23 Construction of Fish Landing Centre at Helan Nagar in Kanniyakumari District**

The Government has accorded administrative sanction of Rs.14.48 crore for the construction of Fish Landing Centre at Helan Nagar in Kanniyakumari District under NABARD-RIDF. The work is in progress.

**5.7.24 Construction of Fish Landing Centre at Rajakkamangalamthurai in Kanniyakumari District**

The Government has accorded

administrative sanction of Rs.14.34 crore for the construction of Fish Landing Centre at Rajakkamangalamthurai in Kanniyakumari District under NABARD-RIDF. Works are in progress.

#### **5.7.25 Construction of Fish Landing Centre at Kottilpadu in Kanniyakumari District**

The Government has accorded administrative sanction of Rs.9.73 crore for the construction of Fish Landing Centre at Kottilpadu in Kanniyakumari District under NABARD-RIDF. Works are in progress.

#### **5.7.26 Permanent Stability of Barmouth at Pulicat in Tiruvallur District**

The Government has accorded administrative sanction of Rs.26.85 crore for the Permanent Stability of Barmouth at Pulicat in Tiruvallur District under NABARD-RIDF. The process of obtaining statutory clearance is

under progress. The work will be started after receipt of MOEF clearance.

#### **5.7.27 Construction of Fish Landing Centre and shore protection works at Pudhupattinam and Uyyalikuppam in Kancheepuram District**

The Government has accorded administrative sanction of Rs.16.80 crore for the construction of Fish Landing Centre and shore protection works at Pudhupattinam and Uyyalikuppam in Kancheepuram District under NABARD-RIDF. 60% works have been completed and remaining works are in progress.

#### **5.7.28 Construction of Fish Landing Centre and shore protection works at Roachmanagar in Ramanathapuram District**

The Government has accorded administrative sanction of Rs.9.91 crore for the construction of Fish Landing Centre and shore protection works at Roachmanagar in

Ramanathapuram District under NABARD-RIDF.  
The works are in progress.

**5.7.29 Construction of Fish Landing Centre and shore protection works at Thangachimadam in Ramanathapuram District**

The Government has accorded administrative sanction of Rs.8.95 crore for the construction of Fish Landing Centre and shore protection works at Thangachimadam in

Ramanathapuram District under NABARD-RIDF.  
The preliminary works are in progress.

**5.7.30 Construction of Fish Landing Centre and shore protection works at Chinamedu in Mayiladuthurai District**

The Government has accorded administrative sanction of Rs.9.78 crore for the construction of Fish Landing Centre and shore

protection works at Chinnamedu in Mayiladuthurai District under NABARD-RIDF. The work is in progress.

### **5.7.31 Providing landside facilities at Kodiyampalayam in Mayiladuthurai District**

The Government has accorded administrative sanction of Rs.2.85 crore for providing landside facilities at Kodiyampalayam in Mayiladuthurai District under NABARD-RIDF. Preliminary works are in progress.

### **5.7.32 Construction of Fish Landing Centre at Thazhankuda in Cuddalore District**

The Government has accorded administrative sanction of Rs.13.06 crore for the construction of Fish Landing Centre at Thazhankuda in Cuddalore District under NABARD-RIDF. The work is in progress.



### **5.7.33 Prevention of sea erosion at Bommayarpalayam village in Villupuram District**

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 Bommayarpalayam in Villupuram district at a cost of Rs.19 crore with NABARD funding assistance to protect the shore from sea erosion. The Government has accorded administrative and financial sanction for this project. 90% works have been completed and remaining works are in progress.

### **5.7.34 Providing Infrastructure facilities at Kalimangundu village in Ramanathapuram District**

The Government has accorded administrative sanction of Rs.1.63 crore for providing infrastructure facilities like Auction Hall, Net Mending Shed and Cement Concrete

Road at Kalimangundu Village in Ramanathapuram District to handle the fish catches in a hygienic manner, transporting and marketing the fishes for the welfare of the fishers. 50% of the works have been completed and further works are in progress.

#### **5.7.35 Providing Infrastructure facilities at Thondi village in Ramanathapuram District**

The Government has accorded administrative sanction of Rs.1.59 crore for providing infrastructure facilities at Thondi village in Ramanathapuram District to handle the fish catches in a hygienic manner, transporting and marketing the fishes for the welfare of the fishers. 65% of the works have been completed and further works are in progress.

#### **5.7.36 Providing Infrastructure facilities at Mullimunai village in Ramanathapuram District**

The Government has accorded administrative sanction of Rs.1.69 crore for

providing Infrastructure facilities at Mullimunai village in Ramanathapuram District to handle the fish catches in a hygienic manner, transporting and marketing the fishes for the welfare of the fishers. 80% of the works have been completed and further works are in progress.

#### **5.7.37 Construction of Fish Drying Platform at Pazhayar Fishing Harbour in Mayiladuthurai District**

The Government has accorded administrative sanction of Rs.1.17 crore for the construction of Fish Drying Platform at Pazhayar Fishing Harbour in Mayiladuthurai District to facilitate the fisher women engaged in dry fishing activities in a hygienic condition. Work is in progress.

#### **5.7.38 Providing additional berthing facilities at Colachel Fishing Harbour in Kanniyakumari District**

The Government has accorded administrative sanction of Rs.15.17 crore for

providing additional berthing facilities at Colachel Fishing Harbour in Kanniyakumari District under NABARD-RIDF. 70% works have been completed and remaining works are in progress.

**5.7.39 Construction of slipway at the Fishing Harbour in Pazhayar in Mayiladuthurai District**

The Government has accorded administrative sanction of Rs.2.86 crore for construction of slipway at the Fishing Harbour in Pazhayar in Mayiladuthurai District under NABARD-RIDF. The work is in progress.

**5.7.40 Construction of New office building to accommodate the office of the Assistant Director of Fisheries and Fishermen Welfare at Mandapam in Ramanathapuram District**

The Government has accorded administrative approval for a sum of Rs.78 lakh for the construction of new office building to accommodate the office of the Assistant Director of Fisheries and Fishermen Welfare at Mandapam

in Ramanathapuram District during the year 2019-20 under State scheme. 90% works have been completed and remaining works are in progress.

**5.7.41 Construction of new Integrated office building in Madurai District to accommodate the office of the Deputy Director, Assistant Director of Fisheries and Fishermen Welfare, Madurai**

The Government has accorded administrative approval for a sum of Rs.1.22 crore for the construction of new integrated office building at Pechiamman Padithurai to accommodate the office of the Deputy Director of Fisheries and Fishermen Welfare, Madurai and Assistant Director of Fisheries and Fishermen Welfare, Madurai during the year 2019-20 under State scheme. 90% works have been completed and remaining works are in progress.

**5.7.42 Construction of Integrated Office building for Deputy Director, Assistant Director of Fisheries and Fishermen Welfare and Training Centre at Tiruchirappalli in Tiruchirappalli District**

The Government has accorded administrative approval for a sum of Rs.4 crore for the Construction of Integrated Office building for Deputy Director, Assistant Director of Fisheries and Fishermen Welfare and Training Centre at Tiruchirappalli in Tiruchirappalli District under Fisheries and Aquaculture Infrastructure Development Fund (FIDF). The works will be commenced shortly.

**5.7.43 Construction of Integrated Office building for Deputy Director, Assistant Director of Fisheries and Fishermen Welfare and Assistant Executive Engineer, Fishing Harbour Project Sub Division and Training Centre at Cuddalore in Cuddalore District**

The Government has accorded

administrative approval for a sum of Rs.4 crore for the construction of Integrated office building for Deputy Director, Assistant Director of Fisheries and Fishermen Welfare and Assistant Executive Engineer, Fishing Harbour Project Sub Division and Training Centre at Cuddalore in Cuddalore District under Fisheries and Aquaculture Infrastructure Development Fund (FIDF). The works will be commenced shortly.

**5.7.44 Construction of Office building for Assistant Director of Fisheries and Fishermen Welfare and Training Centre at Radhapuram in Tirunelveli District**

The Government has accorded administrative approval for a sum of Rs.1.60 crore for the construction of office building for Assistant Director of Fisheries and Fishermen Welfare and Training Centre at Radhapuram in Tirunelveli District under Fisheries and Aquaculture Infrastructure

Development Fund (FIDF). 60% of the works have been completed and further works are in progress.

#### **5.7.45 Fishermen Housing Scheme**

The Government of Tamil Nadu has sanctioned a sum of Rs.85 crore to construct 5,000 houses to the Inland and Marine fishermen. Out of which, an amount of Rs.53.05 crore was released to Rural Development and Panchayat Raj Department. In this scheme, so far 3,317 applications were taken into consideration for constructing the houses, out of which 1,693 houses were fully constructed and completed and 1,624 houses are under various stages of construction.

#### **5.8 Development of Inland Fisheries**

Fish culture is an important economic enterprise in the State and a fast-growing industry providing employment opportunity to



the rural people and supplying protein rich food offering nutritional security. The main objectives of inland fisheries and fish culture are:

- Production and supply of quality fish seed to fish farmers.
- Increase the fish seed production and to fulfill the fish seed demand.
- Optimum utilization of inland fishery resources.
- Geo-spatial mapping of inland water resources to assess the fishery potential.
- Expansion of fish farming area.
- Increase the overall inland fish production of the State.
- Doubling the fish production and thereby increasing the income of fish farmers.
- Promotion of quality fish seed stocking in all effective water bodies to ensure fish food availability and nutritional security.

- Conservation of indigenous fishery resources, effective management, stock enhancement, monitoring and prevention of illegal entry of exotic fish species.
- Creation of employment opportunities to the rural sector through dissemination of advanced fish culture practices and Hygienic marketing facilities to the farmers.
- To ensure food and nutritional security and increasing per capita availability of quality fish.

### **5.8.1 Inland Fisheries Policy**

In order to ensure food security and to provide protein rich food to the rural population, the draft inland fisheries policy for Tamil Nadu has been prepared and is under the consideration of the Government. The inland fisheries policy envisages conservation, management and sustainable utilization of potential inland fishery resources to provide livelihood, generation of

employment opportunities, food & nutritional security and economic prosperity.

### **5.8.2 Strategies and Initiatives in Inland Fisheries**

Tamil Nadu has 3.85 Lakh hectare of inland water spread area amenable for fisheries development. These water bodies mainly depend on seasonal rains. Erratic rainfall associated with mismatch between fish breeding season and availability of water for quality fish seed production, short retention period of water bodies and non-availability of low cost & quality feed are the major obstacles for inland fish production of Tamil Nadu.

In order to overcome the above obstacles, the following initiatives have been taken up by the Department of Fisheries and Fishermen Welfare,

- Promotion of intensive cage culture in irrigation tanks and reservoirs on cluster

farming basis to increase the inland fish production and fish seed rearing in floating cages to increase quality fish seed availability.

- Quality fish seed stocking in potential water bodies owned by various departments for effective utilization and increase the fish production.
- Introduction of intensive fish culture technologies among the farmers through skill development trainings to enhance their income.
- Popularization of eco-friendly aquaculture practices through integrated fish culture with agriculture, horticulture & livestock to provide additional income to the farmers.
- Introduction of diversified fish species and promotion of fast-growing fish culture viz., Amur Carp, Jayanthi Rohu, Genetically

Improved Farmed Tilapia (GIFT) and Pangasius.

- Creation of employment opportunities to the rural people through promoting fish seed rearing and fish culture on cluster basis.
- A fish feed mill unit has been operated successfully in Thanjavur District, supplying quality fish feed to the Government fish farms and private farmers.
- Pure-line brood stock facilities in Mettur Dam and Bhavanisagar Government fish farms has been established for improving the quality of fish seed produced and reared in Government fish farms.
- Promotion of Bio-floc fish culture as an intensive fish culture technology to enhance the unit productivity and sustainable aquaculture practices with higher profit.
- Promotion of Re-circulatory Aquaculture System (RAS) adopting minimal usage of

water and ensuring reuse of the water is a most suitable practice for intensive fish culture. Steps are being taken for promotion of RAS in Tamil Nadu by providing necessary hand hold support and technical guidance to the interested fish farmers of the State.

### **5.8.3 District Fish Farmers Development Agencies (DFFDA)**

The Government of Tamil Nadu has formed District Fish Farmers Development Agencies (DFFDA) in 36 Districts except Chennai and Mayiladuthurai Districts and they are functioning effectively under the Chairmanship of the respective District Collectors.

The main activities of DFFDA are encouraging farmers to take up fish culture, providing technical guidance, extending subsidy assistance and imparting training on advanced fish culture practices. Registration of fish seed hatcheries, nurseries and grow out fish culture farms are

being carried out by the DFFDA to regularize the inland fisheries sector and also to promote fish culture practices through various Government schemes.

#### **5.8.4 Reservoir fisheries**

In Tamil Nadu, there are 62 reservoirs are under the control of the Department of Fisheries and Fishermen Welfare. Among these, 54 reservoirs are under the control of Department of Fisheries and Fishermen Welfare and 8 reservoirs are under the control of Tamil Nadu Fisheries Development Corporation Limited (TNFDC). The Reservoir fisheries management is being carried out to augment the inland fish production of the State.

- The main objective of Reservoir fisheries management is to enhance the fish production and revenue of the inland fishers who depend on these reservoirs for their livelihood.

- Reservoir fisheries are managed by leasing of fishery rights through tender-cum-auction method.
- During the year 2020-21, fishery rights of 28 reservoirs are under lease. Total lease revenue of Rs.9.71 crore has been earned by the Government. Necessary action is being taken to lease out fishery rights of the remaining reservoirs during the year 2021-22.

### **5.8.5 Government Fish Seed Production Centres**

In Tamil Nadu, 11 Government owned fish seed production centres are operating successfully. The details of Government fish seed production centres are given below:

**Table: 5**

#### **Government Fish Seed Production Centres**

<b>Sl. No</b>	<b>Government fish seed production centres</b>	<b>District</b>	<b>Fish seeds produced</b>
1	Manimuthar	Tirunelveli	Indian Major Carps



<b>Sl. No</b>	<b>Government fish seed production centres</b>	<b>District</b>	<b>Fish seeds produced</b>
2	Karanthai	Thanjavur	Indian Major Carps
3	Thatankulam	Thanjavur	Indian Major Carps
4	Nallikkottai	Tiruvarur	Indian Major Carps
5	Thirukampuliyur	Karur	Indian Major Carps
6	Bhavanisagar	Erode	Indian Major Carps
7	Mettur Dam	Salem	Indian Major Carps
8	Krishnagiri	Krishnagiri	Amur carp and GIF Tilapia
9	Poondi	Tiruvallur	Common carp
10	Chembarambakkam	Kancheepuram	Magur cat fish
11	Sathanur (TNFDC)	Tiruvannamalai	Indian Major Carps

The Government is taking various measures to strengthen the infrastructure facilities in the Government fish farms every year. During the year 2020-21, the Department of Fisheries and Fishermen Welfare has produced 60.32 crore of early fry and supplied. Further, the Government is

also encouraging private farmers to establish fish seed hatcheries by providing subsidy assistance.

Considering the limited water availability in the State, the Government has taken a step ahead for promotion of fast-growing fish varieties in short seasonal water bodies of Tamil Nadu and established Genetically Improved Farmed Tilapia (GIFT) hatchery in Government fish farm at Krishnagiri with a production capacity of 24 lakh GIFT seeds/ year is producing and supplying quality GIFT seeds to the farmers of Tamil Nadu as well as to neighbouring States. In order to meet out the growing demand of GIFT seeds in Tamil Nadu especially in the Southern Districts, another Government GIFT hatchery at Manjalar Dam at Theni District under World Bank funded TN-IAM Project with a production capacity of 15 lakh GIFT seeds/ year has been established.

### **5.8.6 Government Fish Seed Rearing Centres**

In Tamil Nadu, 38 Government fish seed rearing centres are functioning under Department of Fisheries and Fishermen Welfare and 5 fish seed rearing centres are functioning under TNFDC. A total of 8.73 crore quality fish fingerlings of various fish species have been reared and supplied to various agencies during 2020-21. The seeds supplied were stocked in reservoirs, irrigation tanks and in fish farms of private farmers leading to increased inland fish production of the State. The details of Government fish seed rearing centres are given below:-

**Table: 6**

#### **Government Fish Seed Rearing Centres**

<b>Sl. No</b>	<b>Fish seed rearing centres</b>	<b>District</b>
<b>Fish seed rearing farms under Department of Fisheries and Fishermen Welfare</b>		
1	Pechiparai	Kanniyakumari
2	Chittar-I	Kanniyakumari

<b>Sl. No</b>	<b>Fish seed rearing centres</b>	<b>District</b>
3	Chittar -II	Kanniyakumari
4	Manimuthar	Tirunelveli
5	Gadana	Tenkasi
6	Vaigai Dam	Theni
7	Manjalar Dam	Theni
8	Managiri	Sivaganga
9	Piravalur	Sivaganga
10	Pilavakkal	Virudhunagar
11	Anaipatti	Dindigul
12	Sathaiyar	Madurai
13	Thattamanaipatti	Pudukkottai
14	Kurungalur	Pudukkottai
15	Karuvidaicherry	Pudukkottai
16	Neithalur	Thanjavur
17	Agarapettai	Thanjavur
18	Karanthai-Mallichetti Theru	Thanjavur
19	Thirumangalakottai	Thanjavur
20	Nallikkottai	Tiruvarur
21	Asoor	Tiruchirappalli
22	Kulithalai	Tiruchirappalli
23	Thirukampuliyur	Karur
24	Bhavanisagar	Erode
25	Mettur Dam	Salem

<b>Sl. No</b>	<b>Fish seed rearing centres</b>	<b>District</b>
26	Anaimaduvu	Salem
27	Hogenakkal	Dharmapuri
28	Chinnar	Dharmapuri
29	Krishnagiri	Krishnagiri
30	Pambar	Krishnagiri
31	Kelavarapalli	Krishnagiri
32	Mordhana	Vellore
33	Vidur	Villupuram
34	Lalpet	Cuddalore
35	Agaram	Cuddalore
36	Poondi	Tiruvallur
37	Chembarampakkam	Kancheepuram
38	Authur	Chengalpattu
<b>Fish seed rearing farms under TNFDC</b>		
39	Palar Porandalar	Dindigul
40	Amaravathy	Tiruppur
41	Thirumurthy	Tiruppur
42	Aliyar	Coimbatore
43	Sathanur	Tiruvannamalai

The Government is encouraging private farmers to establish fish seed rearing centres by providing subsidy assistance. To ensure the

availability of fish seeds for stocking in irrigational tanks on receipt of water during North East Monsoon, fish seed rearing in cages is also promoted by the Government.

#### **5.8.7 Modernisation of Government Fish Seed Rearing Farms under FIDF (2020-21)**

Infrastructure development plays a vital role for increasing the fish seed production in Government fish farms. To achieve this, the Government have sanctioned the following 6 fish farm works under Fisheries and Aquaculture Infrastructure Development Fund (FIDF). The works are modernisation of fish seed farm and construction of training centre at Authur in Chengalpattu District at a cost of Rs. 5 crore, modernisation of existing fish farm at Chembarambakkam in Kancheepuram District at a cost of Rs.1.68 crore, modernisation of Manimuthar fish seed farm at Tirunelveli District at a cost of Rs.2.50 crore, modernisation of fish

seed farm at Sathaiyar Dam in Madurai District at a cost of Rs.4.20 crore, Modernisation of State fish seed farms including additional water supply arrangement at Mettur Dam, Salem District at a cost of Rs.4.80 crore and construction of rearing ponds in Gadana Dam in Tenkasi District at a cost of Rs.5 crore.

## **5.9 Infrastructure development works in Government Fish Farms under NADP (2020-21)**

### **5.9.1 Renovation of Trout Hatchery at Avalanche, The Nilgiris District**

The Government under the National Agricultural Development Programme has sanctioned a work on repair of Government Trout fish farm at Avalanche in The Nilgiris District at a cost Rs.10 lakh. The renovation works are nearing completion.

### **5.9.2 Intensive fish seed rearing facilities in Government Fish Farms**

The Government has taken steps to increase the quality fish seed production in the existing area using higher stocking densities with aeration & water quality maintenance by using probiotics in Government fish seed farms at Thirukampuliyur, Neithalur, Pilavakkal and Manimuthar to enhance the fish seed production in a unit area. Under NADP, an amount of Rs.80 lakh has been sanctioned by the Government and the works are in progress.

### **5.9.3 Construction of nursery ponds at Poondi Government Fish Farm in Tiruvallur District**

The Government has sanctioned an amount of Rs.1.09 crore for construction of nursery ponds at Poondi Government fish farm in Tiruvallur District and the works are in progress.



#### **5.9.4 Creation of additional fish seed rearing facility at Vaigai Dam Government Fish Farm in Theni District**

The Government has sanctioned an amount of Rs.1.42 crore towards creation of additional fish seed rearing facility at Vaigai Dam Government Fish Farm in Theni District and the works are in progress.

#### **5.9.5 Renovation of existing breeder ponds at Government Old Fish Farm at Bhavanisagar in Erode District**

The Government has sanctioned an amount of Rs.3.68 crore for repair and renovation of existing breeder ponds at old fish farm at Bhavanisagar in Erode District and the works are in progress.

#### **5.9.6 Establishment of Earthen Breeder pond with additional facilities at Genetically Improved Farmed Tilapia**

### **(GIFT) Hatchery at Manjalar Dam in Theni District**

The Government has sanctioned an amount of Rs.81.25 lakh for the establishment of earthen breeder pond with additional facilities at GIFT hatchery at Manjalar Dam in Theni District and the works are in progress.

### **5.9.7 Construction of GIFT seed rearing ponds at Government Fish Farm at Kuniyur in Tirunelveli District**

The Government has sanctioned an amount of Rs.3.79 crore for the construction of GIFT rearing ponds at Kuniyur Government Fish Farm in Tirunelveli District and the works are in progress.

### **5.9.8 Renovation of Fish Seed Farm at Pilavakkal in Virudhunagar District**

The Government has accorded sanction of Rs.1.81 crore for renovation of Government Fish seed farm at Pilavakkal in Virudhunagar District

under NABARD-RIDF. 90% of the works have been completed and further works are in progress.

#### **5.9.9 Renovation of existing Farm and Construction of Training centre for Ornamental fish at Manimangalam in Kancheepuram District**

The Government has accorded sanction of Rs.2.85 crore for renovation of existing farms and construction of Training centre for Ornamental fish at Manimangalam in Kancheepuram District under NABARD-RIDF. 60% of the works have been completed and further works are in progress.

#### **5.9.10 Modernisation of Fish Seed Farm at Sathaiyar Dam in Madurai District**

The Government has accorded administrative sanction of Rs.4.20 crore for Modernisation of Fish Seed Farm at Sathaiyar Dam in Madurai District under Fisheries and

Aquaculture Infrastructure Development Fund (FIDF). The work is in progress.

#### **5.9.11 Modernisation of Manimuthar Fish Seed Farm in Tirunelveli District**

The Government has accorded administrative sanction of Rs.2.50 crore for modernisation of Manimuthar Fish Seed Farm in Tirunelveli District under Fisheries and Aquaculture Infrastructure Development Fund (FIDF). The work is in progress.

#### **5.9.12 Modernisation of Fish Seed Farm and Construction of Training Centre at Authur in Chengalpattu District**

The Government has accorded administrative sanction of Rs.5 crore for modernisation of Fish Seed Farm and construction of Training Centre at Authur in Chengalpattu District under Fisheries and Aquaculture Infrastructure Development Fund (FIDF). The work is in progress.

### **5.9.13 Modernisation of State Fish Seed Farm including additional water supply arrangements at Mettur Dam in Salem District**

The Government has accorded administrative sanction of Rs.4.80 crore for modernisation of State Fish Seed Farm including additional water supply arrangements at Mettur Dam in Salem District under Fisheries and Aquaculture Infrastructure Development Fund (FIDF). The work is in progress.

### **5.9.14 Modernisation of existing Fish Farm at Chembarambakkam in Kancheepuram District**

The Government has accorded administrative sanction of Rs.1.68 crore for modernisation of existing fish farm at Chembarambakkam in Kancheepuram District under Fisheries and Aquaculture Infrastructure Development Fund (FIDF). The work is in progress.

### **5.9.15 Construction of fish seed rearing ponds in Gadana Dam in Tenkasi District**

The Government has accorded administrative sanction of Rs.5 crore for construction of fish seed rearing ponds in Gadana Dam in Tenkasi District under Fisheries and Aquaculture Infrastructure Development Fund (FIDF). 80% of the works have been completed and further works are in progress.

### **5.9.16 Inputs subsidy assistance to DFFDA registered fish farmers**

The Government has sanctioned an amount of Rs.75.75 lakh under the National Agricultural Development Programme (NADP 2020-21) to provide 50% input subsidy assistance to the DFFDA registered fish farmers. The farmers who have registered their fish farms under DFFDA are being provided subsidy assistance for purchase of inputs for fish culture.

The input subsidy has been released to 100 ha farm area.

### **5.9.17 Enhancement of fish production in Panchayat tanks**

The Government has sanctioned an amount of Rs.1.01 crore under the National Agricultural Development Programme (2020-21) towards enhancement of fish production in Panchayat tanks by stocking of fish seeds. 50 lakh fish seeds have been stocked in 1,000 ha water spread area of Panchayat tanks to increase the fish production as well as to provide livelihood of the inland fishers.

### **5.9.18 Promotion of cage culture activities in irrigation tanks in Krishnagiri District**

The Government has sanctioned an amount of Rs.3.15 crore under the National Agricultural Development Programme (NADP 2020-21) for promotion of cage culture activities in irrigation

tanks in Krishnagiri District. Under the project, installation of grow out cages are in progress to increase the fish production in a unit area as well as effective utilization of aquatic resources for enhanced fish production.

#### **5.9.19 Promotion of Genetically Improved Farmed Tilapia (GIFT) culture in farm ponds**

The Government has sanctioned an amount of Rs.87.20 lakh under the National Agricultural Development Programme towards promotion of GIF Tilapia culture in farm ponds. Under the scheme, 40% subsidy is being provided to the beneficiaries for excavation of farm ponds and input assistance for GIFT culture in farm ponds. Providing subsidy to the beneficiaries is in progress.



### **5.9.20 Geo-spatial planning of inland fishery resources in collaboration with ISRO**

The Government has sanctioned an amount of Rs.25 lakh under the National Agricultural Development Programme for Geo-spatial planning of inland fishery resources of Tamil Nadu in collaboration with ISRO-Nagpur. Through this project, Geo-spatial mapping of inland water resources available in Tamil Nadu has been captured and will be used for management of fisheries activities in the existing inland water bodies to increase the fish yields.

### **5.10 Pradhan Mantri Matsya Sampada Yojana (PMMSY)**

The Government of India has accorded administrative sanction for the following Inland fisheries development schemes under the funding assistance of PMMSY during the year 2020-21.

**Table: 7**

<b>S. No.</b>	<b>Activities</b>	<b>No. of units</b>	<b>Total project cost (Rs in lakh)</b>
1.	Establishment of New Freshwater Finfish Hatcheries	2	50.00
2.	Construction of New Fish Rearing ponds (Nursery /Seed Rearing)	10 ha	70.00
3.	Construction of New Grow-out ponds	100 ha	700.00
4.	Inputs for fresh water Aquaculture	100 ha	400.00
5.	Construction of Bio-floc ponds for freshwater areas including inputs	15 Nos.	210.00
6.	Establishment of small RAS (with 1 tank of 100 m <sup>3</sup> capacity) for fish culture	20 Nos.	150.00
7.	Establishment of small Bio-floc fish culture system	10 Nos.	75.00
8.	Establishment of Brood Bank	2 Nos.	1,000.00
9.	Integrated Development of Reservoirs (area less than 1000 ha)	5 Nos.	1,108.25
	<b>Total cost</b>		<b>3,763.25</b>

### **5.11 Tamil Nadu Irrigated Agriculture Modernisation Project (TN-IAMP)**

Tamil Nadu Irrigated Agriculture Modernisation Project (TN-IAMP) funded by the World Bank is being implemented from 2018-19 in 66 sub-basins of Tamil Nadu. Implementation of this scheme will enable effective water usage, increasing unit productivity of water resources and enhance farmed fish production thereby increasing farmers' income. Under this project, the World Bank has sanctioned Rs.39.50 crore for implementing the Inland Fisheries development activities in a phased manner for which administrative sanction was provided by the Government.

Under the scheme, during the year from 2018-19 to 2020-21 in Phase I and Phase II sub-basins, Rs.25.65 crore was utilized for the Development of pureline brood stock and maintenance centre at Bhavanisagar and Mettur,

Establishment of GIF Tilapia hatchery at Manjalar, Renovation of Government of fish seed farms at Lalpet and Agaram in Cuddalore District, Fish culture in long & short seasonal irrigational tanks in 22,069 ha. 843 Nos of Aquaculture in farm ponds, 58 Nos of Earthen fish seed rearing cum culture farms, 61 Nos of Fish seed rearing in cages, 15 Nos of fish culture in cages, Supply of 440 Nos of fishing implements to fishermen and establishment of 13 Nos of fish kiosks.

During the year 2021-22, the following fisheries activities will be implemented in Phase I, Phase II and Phase III sub-basins, to the tune of Rs.7.15 crore.

**Table: 8**  
**TN-IAM PROJECT- II (2021-22)**

<b>Sl. No</b>	<b>Activities</b>	<b>Units</b>
1	Direct stocking of fish seeds in long and short seasonal tanks	6,806 ha
2	Aquaculture in farm ponds	118 Nos.
3	Fishing implements	55 Nos.
4	Fish seed rearing in cages	39 Nos.
5	Earthen fish seed rearing and culture farm	27 Nos.
6	Modern Fish Kiosk	2 Nos.
7	Establishment of high value native Murrel fish seed hatchery and culture farm	1 No.

### **5.12 Ornamental Fish Culture**

To provide employment opportunities among the youth and women and to increase the ornamental fish production and trade, National

Fisheries Development Board has sanctioned Rs.4.69 crore to implement a pilot project on "Development of Ornamental Fisheries in Tamil Nadu". Under this project, capacity building training programme on ornamental fish culture was imparted to 200 beneficiaries in 5 Districts. Also, in order to create awareness about ornamental fish as hobby among the school and college students, 75 aquarium tanks have been installed in various schools and colleges of the State under 100 % grant.

To encourage ornamental fish culture, subsidies are being provided to construct/renovate backyard ornamental fish unit, medium scale ornamental fish culture unit, integrated ornamental fish breeding and rearing unit, backyard ornamental aquatic plant unit and establishment of aquarium fabrication cum retail unit.

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

### **5.13.1 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 of quality fish 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.

### **5.13.2 Construction/Renovation of Fish Markets**

To ensure hygienic handling of fish and to provide quality fish and fishery products to the consumers at reasonable price, fish markets are

being constructed/ renovated with modern hygienic handling facilities with the financial assistance from National Fisheries Development Board and the State Government.

Under this scheme, an amount of Rs.6.33 crore as NFDB share and Rs.5.08 crore as State Government share was released to the concerned Civic Bodies/ Municipal Corporations/ Fishermen Cooperative Societies. Constructions of 17 new markets have been completed and constructions of 4 markets are under progress.

### **5.13.3 Quality control and traceability of fishery products**

The Government is undertaking several 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 and Fishermen Welfare is conducting regular awareness and sensitisation programmes to fishermen on hygienic handling, on board cleanliness, maintenance of fish landing infrastructures and fish markets etc.

#### **5.13.4 Fish consumption pattern of the State**

For the year 2020-21, the total fish production of the State was 7.23 lakh tons. State Fisheries Sector contributes 5.4 % to the Agriculture Gross State Domestic Product (GSDP) and 0.64% to Gross State Domestic Product (GSDP) of Tamil Nadu during 2019-20. The per capita consumption of fish of the State during

2020-21 is 9.3 Kg. In the State, fish consumption is promoted through modernized and hygienic fish markets, fish stalls and mobile vehicles and online marketing.

### **5.13.5 Export of fish and fishery products**

Fish and fishery products have presently emerged as the largest group in agricultural exports from India, with 11.50 lakh tons in terms of quantity and Rs. 43,720.98 crore in value. More than 50 different types of fish and shellfish products are being exported to 75 countries around the world.

The State exported 1.10 lakh tons of marine products and earned a foreign exchange of Rs.5,565.46 crore during 2020-21. Marine Products are principally supported by Frozen Shrimp, Frozen Finfish, Frozen Cuttle Fish, Frozen Squid, Dried fish, Live fish and Chilled varieties. The major markets for fishery products are USA, Japan, European Union, China, South East Asia

and Middle Eastern countries.

The Government of Tamil Nadu is promoting export of fish and fishery products from the State by providing shore infrastructure facilities on par with international standards and has an excellent landing and shore infrastructure in 9 major fishing harbours, 3 medium fishing harbours and 53 fish landing centres, which ensure hygienic fish handling and fish quality. Chennai and Thoothukudi are the major export oriented fish processing hubs of the State.

Tamil Nadu is focusing on diversification into deep sea fishing to exploit deep sea resources optimally and to promote export of the state. Furthermore, the Government of Tamil Nadu is under the process of evolving new policies in mariculture activities to enhance the contribution of fisheries sector to the state export.

## **5.14 Skill Development and Capacity Building**

### **5.14.1 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 fishermen families at Rs.50,000/- per student for undergoing 6 specific courses on Maritime Education notified by the Government. An amount of Rs.40.50 lakh was released to 103 fisher youth under the scheme during the year 2019-20 and 2020-21.

This scheme will be continued for the year 2021-22 also.

### **5.14.2 Certificate course for fisher youth**

“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 coordination with Coastal Security Group.

So far, training has been imparted to 145 fisher youth. For, 2021-22 it has been proposed to continue this training programme and 155 Fisher youth would be benefitted further under this scheme.

#### **5.14.3 All India Civil Service special coaching to fisher youth**

The Department of Fisheries and Fishermen Welfare 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 since 2017. The training is being given by Anna Institute of Management (All India Civil Service Coaching Centre). So far four batches of training have been completed and 75 fisher folk students have got benefitted at an expenditure cost of 9.56 lakh. The training

expenditure is met from the CSR fund of the Tamil Nadu Fisheries Development Corporation. This scheme will be continued for the year 2021-22 also.

#### **5.14.4 Recognition of Prior Learning (RPL):**

The Department of Fisheries and Fishermen Welfare, Government of Tamil Nadu is imparting skill development training programme for 3,000 Marine and Inland fisherfolk to create job opportunities under the category of Recognition of Prior Learning (RPL) through Agriculture Skill Council of India (ASCI) for the job roles of Marine capture fishermen cum primary processor and Inland capture fishermen cum primary processor. Tamil Nadu Skill Development Corporation (TNSDC) has accorded financial sanction to a tune of Rs.30 lakh to impart training, assessment and certification for the fisherfolk.

So far, 2,500 (Marine – 1,500 & Inland – 1,000) fisherfolk have been imparted training on

the job roles of Marine capture fishermen cum primary processor and Inland capture fishermen cum primary processor. Assessment by ASCI has been completed for 1,514 fisherfolk.

#### **5.14.5 Kisan Credit Cards (KCC) to fishers and fish farmers**

To meet out the working capital requirements of fishers and fish farmers, the Government of India extended the Kisan Credit Card (KCC) facility to fisheries sector and the scheme is being implemented in the State.

The KCC facility will help the fishers and fish farmers to meet their short-term credit requirements for fishing activities, fish/shrimp culture, seaweed culture and culture of other aquatic organisms and capture of fish. Under KCC facility, the eligible fishers /fish farmers have the credit limit of Rs.2 lakh to meet their working capital requirements for fisheries activities. Interest subvention is available @ 2% per annum at the time of disbursal of loan and additional

interest subvention @ 3% per annum in case of prompt repayment as Prompt Repayment Incentive.

### **5.15 Extension activities**

The Fisheries and Fishermen Welfare 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 and Fishermen Welfare Department participates in various exhibitions, tourism and trade fairs. Awareness campaign on fishery resource management, sea safety measures, hygienic handling of fish, cleanliness in Fishing Harbours / Fish Landing Centres, 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.

### **5.16 Tamil Nadu marine fisherfolk census**

The Department of Fisheries and Fishermen Welfare is conducting decennial census exclusively for fisheries sector. The last Tamil Nadu Marine fisherfolk census was undertaken during the Year 2010 and the Government has proposed to conduct Marine fisherfolk census during this year to understand the present status of fisheries sector in the State so as to formulate policies and welfare schemes for the betterment of fishers.

### **5.17 Study on socio-economic status of fisherfolk in Tamil Nadu**

Government plays an important role in improving the socio - economic conditions of

fisherfolk by implementing various schemes and developing infrastructure facilities all along Tamil Nadu. To study the improvement of living standards of Fisherfolk that have been achieved through various schemes, and to assess the impact of various schemes on the socio economic status of fisherfolk and also to study the areas for further intervention, the Government has sanctioned Rs.50 lakh for the same. This study will support Government in planning, making policy decisions, devising schemes, providing infrastructure facilities, skill development, and frame a road map for the Fisheries sector of Tamil Nadu.

### **5.18 Fisheries co-operative societies**

The Fisheries Co-operative Societies play a pivotal role in 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 in 1,418 Primary Fishermen / Fisherwomen Co-operative Societies, 12 District Co-operative Federations and 1 Apex Co-operative Federation. Fishermen Co-operative Societies are operating 51 full time and 15 part time fair price shops.

The details of number of cooperative societies and their numbers are given in the following table:

**Table: 9**

**Members of Fisheries Co-operative Societies**

<b>Society</b>	<b>No. of Societies</b>	<b>Members enrolled</b>
<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	7,883

Other types	27	6,791
<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>822</b>
<b>TOTAL</b>	<b>1,431</b>	<b>7,17,204</b>

## **6. PROMOTION OF ENTREPRENEURSHIP AND TRADE IN FISHERIES SECTOR THROUGH FACILITATING EASE OF DOING BUSINESS:**

The Government is in the process of promoting 'Ease of Doing Business' concept under which, the redundant/ obsolete Acts and Rules that are in force in the Department of Fisheries and Fishermen Welfare and applicable to business and citizens are being examined for repealing or amended, so as to facilitate the issue of clearances for entrepreneurship and trade in the fisheries sector. Similarly, the compliance processes for the Acts and Rules that are in force are also to be simplified through introducing online processes for availing various services under these Acts.

The details of the Acts and Rules in Fisheries sector are as follows.

(i) **Tamil Nadu Aquaculture (Regulation) Act 1995:**

Since the Central Act of Coastal Aquaculture Authority Act is covering all the aspects of application of the Tamil Nadu Aquaculture (Regulation) Act 1995, this Act has become obsolete. Therefore, the Government is in the process of repealing this Act.

(ii) **Tamil Nadu fishermen and labourers engaged in fishing and other allied activities (Social security and welfare) Act 2007:**

Tamil Nadu Fishermen Welfare Board has been formed under this Act and various cash assistance and relief assistances to fisher folk are being extended to its members under the application of this Act. The Tamil Nadu Fishermen Welfare Board is already processing the relief and other assistance claims of its members through online process. The Government will take necessary action to introduce the online services

for enrolment of members in Tamil Nadu Fishermen Welfare Board and for applying relief assistances and other assistances under its 9 schemes.

(iii) **Tamil Nadu Marine Fishing Regulation Act, 1983**

Entire gamut of marine fishing activities, regulations, enforcement, etc., is covered under this Act, which has been amended during the year 2017. Under this Act, the following 3 types of certificates and permissions / licenses are being issued to the marine fishing boats / fishermen for conducting fishing activities in the territorial waters of Tamil Nadu:

1. Registration of fishing vessels – ReAlCraft Portal.
2. Fishing License to various kinds of fishing crafts – ReAlCraft Portal.
3. Renewal and transfer of fishing license – ReAlCraft Portal.

All the fishing boats operating in the State are registered, licensed, license renewed and change of ownership of license are being done in the ReAlCraft Portal that was developed and launched by the Union Government on all India basis. All the Maritime States of India issue their registration certificates, and fishing licenses certificates through this portal.

The Government of Tamil Nadu will propose to Union Government to create facilities in the portal for enrolling applications by the fishermen directly into the portal for registration of new fishing crafts and fishing license in order to ease the registration process.

Under Tamil Nadu Marine Fishing Regulation Rules under chapter 2, Rule No.14, Clause No. (1),(2) & (3) the owner of the registered fishing vessel has to file a report in the form 13 with details of registration number, type of fishing vessel, quantity of fish landed, important varieties, fuel consumption, revenue realized,



berthing charges paid, wages to crew, repair charges, insurance paid, etc., to the authorized officers concerned. Action will be taken to obtain the returns from fisheries through online process.

Online services being offered by the Department of Fisheries and Fishermen Welfare are as follows.

1. Enrollment and disbursement of Fishing Ban Period assistance.
2. Enrollment and disbursement of Fishing Lean Period assistance.
3. Enrollment and disbursement of National Fishermen Saving cum Relief Scheme assistance.
4. Enrollment and disbursement of Fisherwomen Saving cum Relief Scheme assistance.
5. Uploading the Relief assistance request and disbursement of relief through the Tamil Nadu Fishermen Welfare Board Portal.

## **7. SUSTAINABLE DEVELOPMENT GOALS**

The Sustainable Development Goals (SDGs) are universally agreed commitment of the member countries of the United Nations with aim to provide equitable opportunity to all living on the earth with the agenda of 'leaving no one behind'. The Government of Tamil Nadu has actively involved in taking necessary steps for achieving 17 Sustainable Development Goals in 2030 in line with Government of India.

### **7.1 Initiatives to enhance the fishery resources**

The Department is taking sincere effort to achieve the Sustainable Development Goals. The department has taken various measures like Maximum Sustainable Yield (MSY) in fishing, provide access for small scale artisanal fishers to marine resources and markets, enhance the conservation and sustainable use of oceans and their resources, 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, seed production and culture of fish, development of cold chain facilities to promote hygienic fish marketing and by creating awareness and capacity building to fisherfolk on sustainable fishing practices and special allowances to marine fishermen families during lean fishing season to achieve the targets of Sustainable Development of Life below Water - Goal 14.

**To achieve target 14.4 by 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fished through State specific Indicator 14.4.1 – Marine Fish Production,** the department is taking effective measures to regulate fishing through enforcement of Tamil

Nadu Marine Fishing Regulation Act, ban on pair trawling and ban on destructive gears, the target through,

- a) Technological interventions to conserve fisheries resources.
- b) Deployment of artificial reef
- c) Sea ranching
- d) Diversification of fishing methods
- e) Reduction of fishing pressure by providing alternate livelihood activities to fisherfolk
- f) Management of fisheries resources through participatory approach

**To achieve target 14.7 by 2030 sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism through indicator percentage of available potential area developed under coastal aquaculture** is addressed by promoting shrimp

culture activity through establishment of fish seed hatcheries, construction and renovation of shrimp ponds.

**To achieve target 14.b - Provide access for small scale artisanal fishers to marine resources and markets through indicator assistance to the traditional /artisanal fishers** is addressed by the schemes namely construction and modernisation of fish markets in 19 places with assistance from National Fisheries Development Board and State Government and subsidy assistance for procurement of FRP boats.

The department has formed Sustainable Development Goals (SDG) Unit vide G.O (Ms) No.184, Animal Husbandry, Dairying and Fisheries (A&C) Department, dated 26.12.2019. This unit shall work in close co-ordination with SDG cell under Planning and Development department, the Working Groups, State, District

and Field officer and other institutions working on the Sustainable Development Goals.

Significant efforts are being taken by the Department to achieve the sustainable development goals through implementation of various department schemes.

## **8. 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, behaviour, distribution and migration pattern, reproductive capacity and mortality of fishes which influence the livelihood of fisherfolk.

To build resilience and promote effective adaptation to climate change in the fishery and aquaculture sectors, various steps have 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 and safe berthing of fishing crafts, construction of Fishing Harbours, Groynes, RMS wall in coastal districts are in vogue. Adoption of code of conduct for responsible fishing is also in practice. Aqua farmers are encouraged to culture fast growing, disease resistant species.

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

Tamil Nadu State Apex Fisheries Co-operative Federation Ltd., (TAFCOFED) was registered under Tamil Nadu Co-operative Societies Act, 1983 and functioning since 19.10.1992 with its headquarters at Chennai. At present, 474 marine fishermen, 179 marine fisherwomen, 145 inland fishermen, 18 inland fisherwomen Co-operative Societies and 10 District Fishermen Co-operative Federations have been enrolled as members in TAFCOFED with a total share capital of Rs.91.20 lakh.

The Commissioner of Fisheries and Fishermen Welfare is the Functional Registrar of the Apex Federation and it is administered by Managing Director in the cadre of Additional Director of Fisheries and Fishermen Welfare. TAFCOFED has five Project Offices at Chennai, Nagapattinam, Ramanathapuram, Thoothukudi



and Nagercoil.

The important schemes being implemented by Tamil Nadu State Apex Fisheries Co-operative Federation Ltd., are as follows:

**9.1 Supply of subsidized industrial kerosene to motorised fishing crafts**

During 2020-21, TAFCOFED has supplied 5,237 KL of subsidized industrial kerosene to the traditional motorised fishing crafts in Thoothukudi and Tirunelveli Districts through 13 kerosene outlets and earned a revenue of Rs.33.43 lakh.

**9.2 Supply of sales tax exempted high-speed diesel to fishing crafts**

During 2020-21, TAFCOFED has supplied 20,721 KL of sales tax exempted diesel to mechanised fishing boats and motorised fishing crafts through 14 diesel bunks established in coastal Districts and earned a revenue of Rs.5.21 crore.

### **9.3 Supply of insulated ice boxes to traditional fishermen**

During 2020–21, TAFCOFED has supplied 878 insulated ice boxes to traditional/ artisanal fishermen under National Agricultural Development Programme (NADP) at 50% subsidy assistance.

### **9.4 Modern fish stalls**

In order to supply good quality fish to general public at a reasonable price, TAFCOFED is operating Modern fish stalls at Ariyalur, Vaiyavur, Ramanathapuram, Paramakudi, Neyveli (2 Nos), Tirunelveli, Kanniyakumari, Madurai and Chennai. and earned a revenue of Rs. 5.83 lakh.

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

The Government has sanctioned Rs.887.43 lakh under ICDP for five years (2017-2022)

### **Year - III**

The Government has sanctioned Rs.2.60 crore under ICDP for infrastructure development in the Third year. TAFCOFED has received Rs.2.60 crore towards construction of ice plant at Nagapattinam and Tharuvaikulam and revolving fund assistance for procurement of diesel, kerosene and out board motors / in board engines. Construction of ice plants are in progress.

#### **9.6 Micro credit to fisherwomen for seaweed farming**

Seaweed culture has been emerged as a major alternative livelihood income generating activity particularly in Ramanathapuram, Pudukkottai and Thoothukudi Districts. The seaweed farming is intensive in Ramanathapuram District with more than 2,000 families, particularly fisherwomen depend on this as livelihood source. Presently, fisherwomen depend

on credit from local money lenders and procurement agents at higher interest rates for their farming which often lead to reduction in the selling price. To help the fisherwomen, TAFCOFED made intervention by providing micro credit at a lower interest rate which enable the fisherwomen free from lenders and ensure better price for their produce. Initially TAFCOFED has provided Rs.50 lakh as micro credit to 1000 fisherwomen at the rate of Rs.5,000/- fisherwomen. During 2020-21, TAFCOFED has sanctioned Rs.8.25 lakh to 33 groups.

### **9.7 Establishment of co-operative stores in Fish Landing Centre (FLC)/Fishing Harbour (FH)**

The Tamil Nadu State Apex Fisheries Co-operative Federation Limited has established co-operative stores at Tharuvaikulam Fish Landing Centre and Nagapattinam Fishing Harbour at a total cost of Rs.30 lakh for supply of fishing implements and accessories required by

the fishermen who operate fishing boats from these Fishing Harbour/Fish Landing Centres. Fishermen can access their daily needs of fishing at the harbour premises itself. On requirement basis, the store materials are supplied from these Co-operative stores to other FLCs also.

### **9.8 Financial performance**

During the year 2020-21, TAFCOFED has made a turnover of Rs. 156.75 crore and earned a net profit (unaudited) of Rs. 3.80 crore.

## **10. 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 the Hon'ble Minister for Fisheries and Fishermen Welfare as Chairman and the Commissioner/Director of Fisheries and Fishermen Welfare as Member Secretary. The Board consists of members nominated from time to time by the Government of Tamil Nadu.

A total of 4.70 lakh members have been enrolled in Tamil Nadu Fishermen Welfare Board.

Collection of contributions is being made through various receipts from the members of Tamil Nadu Fishermen Welfare Board, diesel bunks operated by TNFDC and TAFCOFED. The member contribution is Rs.20/- per member and

other receipts being 7% of fishery lease amount and Rs.2/- per kg of fish sale from Mettur Dam. A sum of Rs.27.94 crore has been collected as contribution from 1.4.2008 to 31.03.2021.

The Welfare schemes being implemented by the TNFWB are detailed in Table 10.

**Table: 10**  
**List of welfare schemes in TNFWB**

Sl.No.	Details of Relief Assistance	Relief / Assistance (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 while fishing	2,00,000
4	Natural Death	15,000
5	Funeral Expenses	2,500
6	Assistance for <b>Day scholar</b>	<b>Hosteller</b>

Sl.No.	Details of Relief Assistance			Relief / Assistance (in Rs)	
				Boys	Girls
	Education to son and daughter of the members	<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) Under Graduate 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
	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



## **10.1 Online service delivery**

- All the schemes implemented by the Tamil Nadu Fishermen Welfare Board (TNFWB) are being brought under one umbrella and are effected through the web portal [www.tnfwb.tn.gov.in](http://www.tnfwb.tn.gov.in). All the Assistant Directors of Fisheries and Fishermen Welfare have been provided with User ID for accessing the web portal. This enables the Assistant Director of Fisheries and Fishermen Welfare to upload the details of the beneficiaries directly. This procedure reduces time by usage of forms, verification of documents and other procedures and also enables quick and easy transfer of relief assistance to the beneficiaries, as the benefits are directly transferred to their bank account through NEFT. The apparent mode of implementing schemes under Tamil Nadu Fishermen Welfare Board (TNFWB) through online facilitates

beneficiaries to view the status of application in a transparent manner.

- During the year 2020-21, TNFWB has settled 2,418 claims amounting to Rs.2.90 crore under various welfare schemes through National Electronic Fund Transfer (NEFT).
- The TNFWB will bear the education fee to 5% of seats allocated to the children of wards of members, who study B.F.Sc. degree or B.Tech. (Fisheries Engineering) degree in Tamil Nadu Dr.J.Jayalalithaa Fisheries University. In 2020-21, a sum of Rs.4.27 lakh has been borne by TNFWB to 7 students. This assistance will be extended in 2021-22 also.

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

Tamil Nadu Fisheries Development Corporation Limited (TNFDC), a Public Sector undertaking registered under Companies Act in 1974, with an authorized share capital of Rs.5 crore and administered by the Board of Directors appointed by the Government.

The TNFDC through various commercial activities such as Fresh fish marketing, Sea Food Courts, Diesel / Kerosene sale, Reservoir fisheries, etc., has made a turnover of Rs.566.89 crore and earned a profit of Rs.11.03 crore (unaudited) for the financial year 2020-21. It is targeted to earn Rs.13.50 crore as profit for the year 2021-22 with an anticipated turnover of Rs.676.41 crore.

The Additional Chief Secretary to Government, Animal Husbandry, Dairying, Fisheries and Fishermen Welfare Department

functions as Chairman, Tamil Nadu Fisheries Development Corporation Limited. The Commissioner/Director of Fisheries and Fishermen Welfare is the Managing Director of the Tamil Nadu Fisheries Development Corporation, an ex-officio post. The field activities of the Corporation are managed by General Manager, Senior Managers, Managers, Deputy Managers and Assistant Managers etc., totalling 94 permanent employees and 303 outsourced employees. The Corporation is in the process of recruiting more staff to expand its business activities.

TNFDC is undertaking reservoir fisheries in 8 reservoirs by adopting scientific method in stocking of advanced fish fingerlings and producing approximately 1,000 tons of inland fishes every year. In order to generate more revenue, the fishing rights of all the above reservoirs have been leased out to private parties

as per Government orders.

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 centres at Aliyar and Thirumoorthy Nagar. Ornamental Fish Aquariums are being operated by the Corporation in the above said places for attracting the tourists/ visitors.

Quality fresh fish and value-added sea food products are being marketed at a reasonable price to public through its chain of retail fish stalls and mobile units at Chennai, Madurai, Coimbatore, Tirupur, Tiruvannamalai and other Districts in the State. Efforts are being taken to expand the fish marketing network by

establishing more modern and mobile fish retail outlets in different cities. The wholesale fish market at Ukkadam, Coimbatore is being maintained by the Corporation.

The Corporation is operating 31 diesel outlets and 10 kerosene 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/kerosene to the motorised traditional and mechanised fishing crafts. TNFDC is establishing more diesel outlets in newly established fishing harbours and fish landing centres.

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

The operation and maintenance of the Chetpet Eco Park is being undertaken by TNFDC. The Eco-Park with Boating, Angling, Multi-Level Car Parking (MLCP), Children Park, Recreation Centre, Food Court, Walking and Jogging Tracks, Children Play Area, Multimedia, Amphi-theatre,

etc., is attracting a huge number of footfalls. 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. So far, 8.60 lakh visitors have visited the Eco Park. Various recreational activities in the Eco Park are leased out to private parties and the income is being utilized for park maintenance and also efforts have been taken to introduce additional recreational facilities in the Eco Park.

### **11.2 Centralized kitchen for sea food products and training centre**

TNFDC has established a Centralized Kitchen with training facilities for Women Self Help Group for the production & marketing of ready to cook and ready to eat value added fishery products at Royapuram, Chennai at an estimated cost of Rs.3.04 crore. Training is being given to the Women Self-Help Group using the facilities at the Centralized Kitchen for the production of value-

added fish delicacies.

### **11.3 Establishment of online fish marketing facilities at Chennai**

TNFDC has revamped the online website “www.meengal.com” with additional user-friendly features along with “meengal” Mobile App applications. The online fish marketing facilities are well utilized for supply of fishes to the customers at their doorsteps through e-commerce platform during the Covid-19 pandemic lockdown.

### **11.4 Operation of fish feed mill**

The TNFDC has taken over the fish feed manufacturing unit established by the Department of Fisheries and Fishermen Welfare, Government of Tamil Nadu at Achampatti in Thanjavur and commenced fish feed production from 23.08.2018. So far, 402 metric tons of fish feed have been produced and supplied to the



Departmental fish farms and private fish farms.

### **11.5 Branding of TNFDC products**

The TNFDC 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.

The TNFDC has paid a sum of Rs.2.41 crore to the State Government as dividend and a sum of Rs.1 crore as TNFDC’s contribution to the Chief Minister’s Public Relief Fund for the year 2019-20. TNFDC also paid a sum of Rs. 80 lakh as its contribution to Tamil Nadu Fishermen Welfare Board.

Further, the TNFDC has allocated a sum of Rs.23.40 lakh as its Corporate Social Responsibility (CSR) fund for the year 2020-21.

## **12. TAMIL NADU DR. J JAYALALITHAA FISHERIES UNIVERSITY (TNJFU)**

Tamil Nadu Fisheries University 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 utilization in the state, by following State Agricultural University (SAU) pattern. The University was renamed as Tamil Nadu Dr. J Jayalalithaa Fisheries University (TNJFU) as per G.O. (Ms.) No.21, Animal Husbandry, Dairying and Fisheries Department dated: 16.02.2018.

### **12.1 Vision**

“Harnessing the Science of Fisheries for Food, Nutrition and Livelihood” is the Vision of the University.

### **12.2 Mission**

Excelling in teaching, research, and

extension initiatives in fisheries sciences to produce professionally acclaimed and socially responsible graduates achieving nutritional security and sustainable development of the fisheries sector.

### **12.3 Objectives**

- To impart quality education in different branches of Fisheries Sciences as the University may determine
- To conduct organised research in the frontier area to develop cutting-edge technologies in Fisheries Sciences.
- To provide extension services like training, consultancy, project formulation to fish farmers, fisherfolk, unemployed youth and entrepreneurs in Fisheries Sciences.
- To facilitate comprehensive development of Fisheries Sciences for increased contribution to the state's economy and set benchmark standards through appropriate interventions in fisheries teaching, research and extensions.

## 12.4 Staff strength

The sanctioned staff strength is given in the Table 11.

**Table:11**

<b>Sl. No.</b>	<b>Name of the Post</b>	<b>Sanctioned</b>	<b>Filled</b>
1.	Vice-Chancellor	1	1
2.	Registrar	1	1
3.	University Officers	13	13
4.	Professors	7	3
5.	Associate Professors	34	13
6.	Assistant Professors	107	87
7.	Assistant Librarians	4	1
8.	Assistant Director of Physical Education	2	1
9.	Non-teaching staff	262	166
<b>TOTAL</b>		<b>429</b>	<b>286</b>

## **12.5 Education institutions and teaching infrastructures**

### **12.5.1 Constituent Units**

The University at present has four faculties (Fisheries Sciences, Fisheries Engineering, Basic Sciences and Nutrition & Food Technology). All these faculties together offer six professional degree programmes namely B.F.Sc., B.Tech. (Fisheries Engineering), B.Tech. (Energy & Environmental Engineering), B.Tech. (Biotechnology), B.Tech. (Food Technology) and B.B.A. (Fisheries Business Management) and four paraprofessional degree programmes namely B.Voc. (Industrial Fish Processing Technology), B.Voc.(Industrial Aquaculture), B.Voc. (Industrial Fishing Technology) and B.Voc. (Aquatic Animal Health Management) through eight professional colleges and four paraprofessional colleges. TNJFU altogether has 40 constituent units including Centres and Referral Labs. Together 283 students were admitted and 135 students graduated.

13 M.F.Sc programmes, two M.Tech programmes, one M.B.A program and 14 Ph.D. programmes are also offered. 48 students to the Master degree programmes and 23 students in Ph.D., programmes were admitted. 21 M.F.Sc, four M.B.A and 11 Ph.D. students were passed out.

### **12.5.2 Technical Directorates**

There are five Technical Directorates viz., Directorate of Research, Directorate of Extension Education with a Krishi Vigyan Kendra (KVK), Directorate of Sustainable Aquaculture (DSA) with seven Centres, Directorate of Incubation & Vocational Training in Aquaculture (DIVA) with three Centres and Directorate of Incubation & Vocational Training in Fisheries (DIVF) with three Centres.

### **12.5.3 Major Academic Achievements**

The Gross Student Enrollment Ratio (GER) of TNJFU is the highest compared to other Fisheries Universities and Fisheries Colleges in the

country. TNJFU is offering the maximum number of UG, PG and Ph.D programmes among the Fisheries Universities (10-UG; 16-PG; 14-Ph.D). TNJFU is producing engineering graduates with a specialization in fisheries. Adoption of ICAR's syllabi by the TNJFU has been well recognized in fisheries education both at the National and International levels. The students of TNJFU have secured the first, second and fourth ranks in All India Entrance Examination for Admission for postgraduate studies (AIEEA (PG) -2020) conducted by ICAR, New Delhi. In total, thirty-one students got their admission through ICAR – AIEEA. University intends to continue this initiative as this has ensured a competitive spirit among the students.

#### **12.5.4 Academic Programmes offered**

TNJFU is offering four UGC approved paraprofessional vocational degree programmes. Among the Fisheries Universities, TNJFU is the

first to introduce the para-professional courses to cater to the requirement of the fisheries and aquaculture sectors. The enrolment rate in all these colleges has tripled in the past two years and currently, there are 1265 students in the university. The faculty strength of the university also rose in line with the increase in courses and student's strength and currently TNJFU has 118 teaching faculty on roll against the sanctioned strength of 167. TNJFU is able to attract talented and dedicated researchers and teachers from Tamil Nadu and from some of the best universities in India.

#### **12.5.5. Endowment Awards:**

A total of 50 endowment awards for academic excellence of the students were instituted so far to encourage the students and recognize the academic merit in various fisheries disciplines.



## **12.6. Research Activities**

- **Research:**

Research activities of the university are guided by the 4P's Cell (Papers, Projects, Products & Patents). Faculty members of TNJFU have continued to conduct significant research and published their papers in esteemed referred journals. Publication of scientific research articles from the University has been showing an upward trend over the years with 108 research papers and technical reports were published. The research achievements are being given increased importance in the career advancement and promotion of the faculty.

- **Patents:**

TNJFU has a total of six Patents under various levels of processing. On patenting, our University is playing a major initiative. University has got three patents granted since its inception.

**Table: 12**

<b>Sl. No.</b>	<b>Title of the invention</b>	<b>Application Number</b>	<b>Patent Number</b>	<b>Date of Grant</b>
1.	Method of preparing anti-oxidative edible film from carp gelatin and fucoidan	201641031823	342498	27.07.2020
2.	Designing and fabrication of Inland raceways for intensive rearing of ornamental fishes	1096/CHE/2013	362943	24.03.2021
3.	Designing of genus specific primer for <i>Lutjanus</i> from 16S rRNA mitochondrial region for authentication of snapper products by single step PCR	201841026977	373138	29.07.2021

- **Research Infrastructure Created:**

A Referral Lab for 'Fish Nutrition and Feed Analysis' at IFPGS, OMR campus and a Referral Lab for 'Aquatic Animal Health' at Madhavaram campus were created. RAS Research Facility developed at Madhavaram campus is a unique facility. Mobile Aqua Labs (3 nos.) have been introduced at Madhavaram, Ponneri and Nagapattinam campuses and 'Outdoor Biofloc Production Park' a first of its kind has also been developed at Madhavaram campus. High-end research equipments are also installed in research laboratories of the institutes.

**Table: 13****On-Going Schemes:**

<b>Sl. No.</b>	<b>Title of the Scheme</b>	<b>Funding Agency</b>	<b>Budget (₹ in lakh)</b>
1.	Evolving artificial fish bait for longline fishing using biopolymers and bio attractants derived from marine fish processing wastes	DBT, New Delhi	44.84
2.	Bio-prospecting for anti-osteoporotic collagen peptides derived from fish bones	DBT, New Delhi	36.07
3.	Production of Eicosapentaenoic acid (EPA) from marine diatom <i>Phaeodactylum tricornutum</i> isolated from the coastal waters of Gulf of Mannar"	DST – SERB, New Delhi	41.86
4.	Re-emergence of <i>V.vulnificus</i> risk in seafood safety in response to climatic changes	DST-SERB, New Delhi	39.67

5.	Monitoring of heavy metals in fish and shellfish species along the Indian coast and possible mitigation measures	FSSAI, New Delhi	9.52
6.	National Surveillance Programme for Aquatic Animal Diseases	NFDB -ICAR	95.31
7.	Establishment of Recirculatory Seabass Aquaculture Technology Park for doubling the income with low water budgeting	NADP	350.00
8.	Establishment of State Referral Laboratory for Fish Feed Testing and Quality Certification at Institute of Fisheries Post Graduate Studies, TNJFU-OMR Campus, Vaniyanchavadi, Chennai	NADP	250.00
9.	Kayalagam - The Future Store for Amplification of Marketing of Diversified Fish Products in Tamil Nadu	NADP	250.00

10.	Establishment of Aquaculture Service Centre in Cauvery Delta Region	NADP	130.00
11.	Establishment of Aqua-Agri Integrated Systems for inland farmers in Erode District	NADP	138.50
12.	Development and Transfer of Seaweed Farming Technology as an Alternative Employment Option for the Coastal Fisherfolk in Mandapam Region of Tamil Nadu	NADP	251.10
13.	Upgrading Sustainable Aquaculture Production Centres of TNJFU for operation through Private-Public Partnership for Integrated Agriculture Development	NADP	378.00

14.	Integrated Multi-Tropic Aquaculture (IMTA) Based Culture Technology to Augment Fish Production as an Alternative Livelihood for the Fisherfolk of Tharuvaikulam, Tamil Nadu	NADP	299.56
15.	Hands-on Training cum Demonstration on "Limited Water Usage Aquaculture Technologies"	NADP	187.40
16.	TNJFU's Business Incubators for Aquaculture and Fish Processing Technology to promote Start-Ups Integrated Fisheries Entrepreneurship in Tamil Nadu state	NADP	300.00
17	Establishment of Loach (Ayira Meen) breeding centre at Parakkai, Kanniyakumari District	NADP	175.00
18.	Upscaling of biofloc production technology	NFDB	50.00

	for developing eco feed for Vannamei shrimp culture		
19.	Open sea cage culture of marine finfishes along the coast of Ramanathapuram Dt. in Tamil Nadu	NFDB	267.60
20.	Artificial Coral Reef(ACR) and Fish Aggregating Artificial Reef(FAAR) to enhance Fish Diversity and Biomass in the Sea near Pulicat lake towards Fishing Pressure Reduction and Livelihood Improvement of Fisherfolk in the Lake Region	TANII	430.66
21.	Tilapia Entrepreneurial Park Development for Industrialization of Tilapia Culture in Palar Porandalar Dam (Dindigul Dt)	TANII	344.50
22.	TN-Irrigated Agriculture Modernisation Project	TN-IAMP (World Bank)	250.00



23.	Establishment of Marine Products Business Incubation Centre	EDII, Chennai	250.00
24.	Establishment of Deep sea fishing technology and management centre at Thoothukudi and Thoothur	DAHD&F, Govt. of Tamil Nadu	382.00
25.	Livelihood Improvement through Technology backed backyard genetically improved farmed Tilapia (GIFT) and Carp farming	TN-State Planning Commission	18.00
26.	Additional Academic Infrastructure for Institute of Post Graduate Studies	NABARD, Chennai	635.00
27.	Institute of Paraprofessional Aquaculture Technology, Chennai	NABARD, Chennai	880.00

### **12.7. Services offered to farmers/fishers**

University has seven Aquaculture Quality Testing Labs, three Mobile Aqua Labs, four Molecular diagnostic Labs, three Food products

quality testing labs and one Feed quality testing lab. Uniform tariff for analytical testing/services is applied to the farmers and fishers throughout Tamil Nadu. A concession of 30% in the cost of laboratory analysis for the students of TNJFU is also available.

The ICAR-KVK, Nagapattinam is functioning under the control of TNJFU from 01.04.2018. The overall mandate of the KVK is to develop and disseminate location specific technological modules at district level through Technology Assessment, Refinement and Demonstration and to act as Knowledge and Resource Centre for agriculture and its allied activities. Demonstration units such as Seed Production-Paddy, Fodder Production, Nursery production unit, Coconut seedling production, Tree seedling production, Pseudomonas production, Bee hives, mushroom cultivation, Panchakavya production, Vermi

compost, Coir pith Compost, Poultry Rearing, Quail, Dairy, Goat rearing, Integrated farming system, Azolla, Fish farm pond, Ornamental fish culture, Aqua-ponics, Fish/Prawn Pickle production and Fish Amino Acid production are established for training purpose.

### **12.8 Digital, Green & Clean Campus Initiatives**

University is taking several measures towards ensuring and improving the quality of campus environment year after year. Digital campus, Clean campus and Green campus initiatives are being undertaken in all the constituent units of this University. In line with the emphasis given by the Govt. of Tamil Nadu on improving the quality of the environment in the Campuses, the TNJFU Headquarters building is now fully having solar power backup. The Bhavanisagar Centre for Sustainable Aquaculture farm has been fully energized with the solar power backup and the buildings are partially

supported with solar power. Such initiatives are in progress in all the major campuses. The newly built University Library building is a green building designed in such a way to provide natural lighting inside the building for the readers during day time.

The University has initiated the application process for the admission of students in various academic programmes of TNJFU through online mode, for making the process efficient and less time consuming and cost. Similarly, in this pandemic situation the students were allowed to sit for exam through online from their home. Every campus shall be established with Entrepreneurship Development Programme facility where services will be integrated through Single Window Portal (SWP).

### **12.9 International & National Meets**

TNJFU has hosted series of programmes both in online and offline mode (11 trainings, 12 webinars, eight workshops, two seminars and

two conferences) which received International and national recognition.

### **12.10 Technologies developed**

Technology development is the regular pursuit of the University in all areas of Fisheries Science. The following are the key technologies that have been developed and are being transferred to the stakeholders from the University:

1. Flower horn feed
2. Squid Protein-based Beverage Mix
3. Multiplex PCR assay for simultaneous detection of White spot syndrome virus (WSSV) and *Enterocytozoon hepatopenaei* (EHP) infecting shrimp
4. PCR method for species authentication of *Lutjanus* products using specially designed primer
5. Development of Seaweed Liquid Fertilizer

(SLF) from *Sargassum* sp. for the culture of marine microalgae for aquaculture applications

6. Halochromic sensors for monitoring spoilage of packaged seer fish, crab and shrimp
7. Portable Colorimeter for On-Site Determination of Nitrate in Aquaculture
8. Demand-Based Auto Feeder

### **12.11 Sustainable Development Goals**

The University will keenly focus on to sustain the quality of education provided in various UG, PG and Ph.D. programmes by recruiting quality teachers and to admit students for PG. and Ph.D. through rigorous screening; to create incubator facilities for skill development and to evolve start-up initiatives to produce skilled manpower through academic and vocational channels; to strengthen the current

R&D infrastructure to help the faculty and the students research teams to bring out quality technologies for adoption by the stakeholders; to give more emphasis for utilizing the sea judiciously by promoting marine cage farming in coastal waters & deep-sea fishing in off-shore waters; to take initiatives to popularize quality tested innovative fish products in the state to increase the per capita fish consumption of Tamil Nadu state; to undertake International collaboration on thrust areas of research front such as Re-Circulatory Aquaculture System (RAS) and Integrated Aquaponics Systems to evolve viable indigenous technologies for adoption.

University's enduring vision, "Harnessing the science of fisheries in the State for food, nutrition and livelihood" forms the bedrock of strategy. University is working to adapt and strengthen its capacity in this challenging economic and competitive environment.

University ensures to offer high-quality education to all who wish to realize their ambitions and fulfill their potential. The staff of the University are working strenuously towards achieving the goal outlined by the University and the Government of Tamil Nadu to provide quality education to the students and also for improving the living conditions of the poor and downtrodden in our society through fisheries and aquaculture technologies. The aim is to ensure sustained daily income for the fishers and to provide protein-rich healthy food to the people, and our activities are holistically focused towards this goal through education and training.

### **13. Way Forward**

The fisheries sector is having a good potential for significant contribution in the National and State's economy. At the same time of foreseeing the growth opportunities in the



sector, the Government is also committed to protect the fishing rights and welfare of the Tamil Nadu Fishermen. The State will strive hard to make a breakthrough in the development of fisheries and its growth in a sustainable manner.

In line with the Nation's goals to raise fish production to 200 lakh tons by 2022-23 and raise fishery exports to Rs.1 lakh Crore by 2024-25, the State Government is also focused to achieve a fish production of 10 lakh tons from the present production of 7.23 lakh tons thereby, plans to marginally increase the exports from the present 1.10 lakh MT to 2.50 lakh MT in the next ten years in a sustainable manner, for which the Government is in the process of developing a ten-year plan.

In order to ensure the sustainable fisheries management in the marine sector, the deep-sea fishing will be promoted in a larger scale.

Effective implementation of the Tamil Nadu Marine Fishing Regulation Act (TNMFRA), 1983 through the Marine Enforcement Wing, installation of Artificial reefs, sea ranching programmes are the key activities for conservation of marine fishery wealth in our State.

The Government is having a visionary approach in initiating the need-based welfare schemes to the fishermen, such as fishermen housing, inclusion of fishermen community as a coastal tribe under the Scheduled Tribes, establishing a National Commission for the Welfare of Fishermen etc.,

In order to double the farmers' income through integrating the fish culture with the Agriculture and Animal Husbandry, promoting culture of short seasonal fast-growing GIFT like fish species, encouraging modern fish culture techniques like Re-circulatory aquaculture, bio-

floc fish culture, fish culture in HDPE lined ponds are to be promoted through subsidy assistance. Non-land based culture practices such as fish seed rearing in cages and cage fish culture in reservoirs has led to increased fish production in the limited space.

Mariculture is gaining popularity worldwide. Visualizing this, the State has promoted Integrated Mariculture and Cage culture activities to increase fish production in a sustainable manner. Tamil Nadu is the pioneer in seaweed culture. In order to create alternate livelihood to the fishers, the seaweed culture is being expanded in a very large scale. These activities conserve the natural fishery wealth and provide assured returns to the coastal fishers.

The Government is spearheading to undertake new initiatives and has planned an all-round development through sustainable management and conservation of marine fishery

resources, increasing the fish production, value addition through fish processing and marketing in coastal areas, creating new business avenues and entrepreneurship in the aquaculture and seaweed sector.

The future source of food will entirely depend on the seas and thus the blue economy will play a major role in our State's development. The coastal and inland aquaculture is also having equal scope for contributing significantly in the Gross Domestic Production of the State. Fishing and fishermen communities are closely aligned with farming and are crucial to the development of our State. The nutritional value associated with the fish has already made a prime spot to the fish in the diet of all people irrespective of age. Thus, the value for the fish food in our diet and scope for development of fisheries sector in our State have paved way for planning and implementation of all these futuristic schemes.

#### **14. Budget Allocation for the Year 2021-22**

For the year 2021-22, a sum of Rs.1,149.79 crore has been provided in the budget. Out of this, the projected revenue expenditure is Rs.568.81 crore and the capital expenditure is Rs.580.98 crore.

#### **15. Conclusion**

Protecting the welfare and traditional fishing rights of our Tamil Nadu fishermen is the top most priority for this Government. It is also the intention of the Government to get the National Commission for Fishermen Welfare for safeguarding the welfare of the marine and inland fishermen. Government takes necessary steps to ensure that the fishermen are getting institutional support for the operational expenditures of the fishing activity.

The Fisheries sector of Tamil Nadu has transformed from artisanal fishing to modern

fishing with the advent of technology and Best Management Practices (BMP). Strengthening of the fishery infrastructure facilities like fishing harbours, fish landing centres and other cold chain facilities, improving rural economy through integrating fish culture with agriculture/livestock, promotion of seaweed culture, marine cage culture, bivalve culture and freshwater aquaculture are the main focus areas of the Government for the comprehensive growth of the sector.

The Government has a farsighted vision towards sustainable development and utilization of fishery resources. Suitable conservation measures like establishment of artificial reefs, ranching of fish seeds, encouraging eco-friendly fishing practices etc., are being practiced. Effective enforcement of Marine Fishing Regulation Act and Co-management initiatives will ensure the judicious usage of the precious fishery

resources. The Government will take all requisite steps for the inclusive development of fisheries sector in the State in the near future by setting specific goals for growth in marine and inland fish production, fish seed production, fish and fishery product export promotion, coastal aquaculture development etc., Thus, the Government is determined to bring a breakthrough development in the fisheries sector of the State.

**ANITHA R. RADHAKRISHNAN**  
**Minister for Fisheries-Fishermen**  
**Welfare and Animal Husbandry**

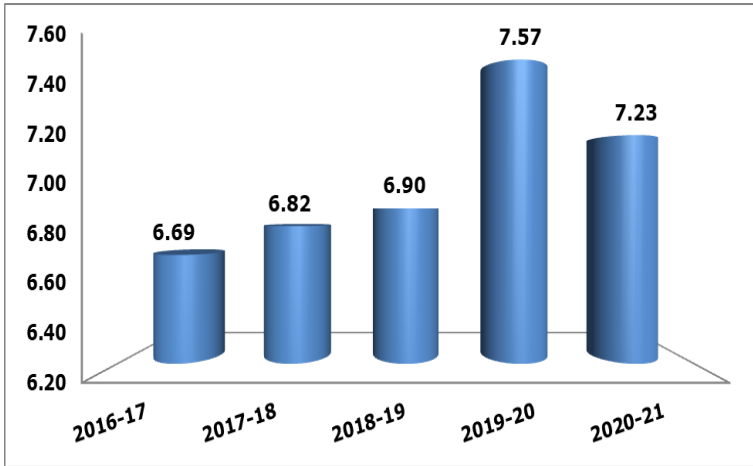


The Hon'ble Chief Minister of Tamil Nadu had a discussion with the Ornamental fish farmers and traders at Kolathur in Chennai on 26.06.2021

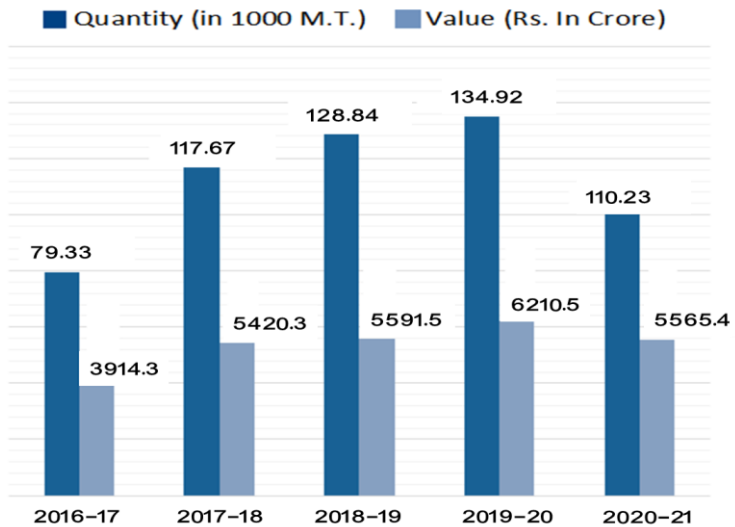


The Hon'ble Chief Minister of Tamil Nadu reviewed the Schemes and Activities of the Animal Husbandry, Dairying, Fisheries and Fishermen Welfare Department on 13.07.2021





Tamil Nadu Fish Production in lakh tons (2016-17 to 2020-21)



Fish and Fish Products Export of Tamil Nadu (2016-17 to 2020-21)

