



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

**FISHERIES AND FISHERMEN
WELFARE**

**POLICY NOTE
2022 - 2023**

DEMAND No. 7

Thiru. ANITHA R. RADHAKRISHNAN

**Minister for Fisheries – Fishermen Welfare
and Animal Husbandry**



**Government of Tamil Nadu
2022**

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**FISHERIES AND FISHERMEN
WELFARE DEPARTMENT**

POLICY NOTE

2022–2023

1. INTRODUCTION

Fish is a good source of protein with high nutritional profile and play an important role in meeting the protein requirement of the growing population. Tamil Nadu has diverse fishery resources available in the form of seas, backwaters, rivers, reservoirs, tanks and ponds, which provides immense scope for enhancing the overall fish production of the State. Fisheries sector besides generating employment opportunities to the rural people, significantly contributes to the economy of the State. Fish has wide acceptability among the general public for its rich nutritional profile and palatability.

The Government of Tamil Nadu gives utmost care and importance to the welfare of

fishermen and for an inclusive growth of the fisheries sector. To ensure a holistic development in this sector, the Government is undertaking various innovative programmes for increasing the fish production through conservation of fishery resources, sustainable exploitation and promotion of aquaculture practices. For safe berthing of fishing crafts and hygienic handling of fish from the point of catch to consumption, the Government have developed state of the art infrastructure facilities such as fishing harbours, fish landing centres, shore facilities, fish markets etc.

The Government is implementing major welfare schemes to marine fisherfolk to ensure social security and to alleviate the hardship during the fishing ban and lean period. To provide safety and security to the fishermen while fishing, the Department has established an excellent seamless communication system and supplied the advanced

communication equipments such as satellite phones, VHF sets, transponders etc.

Restoring the right to fish in the traditional fishing grounds of the Palk Bay is one among the top priorities of the Government. The State Government is continuously insisting the Union Government to arrive a permanent solution to the issues of attacks and apprehension of our fishermen and their fishing assets by the Sri Lankan Government in the Palk Bay area. The Government have initiated the process of diverting the fishermen into alternative livelihood activities like seaweed culture and open sea cage culture. The Government is also continuing the schemes to promote deep sea fishing to develop an eco-friendly and sustainable fishing practice.

The Government of Tamil Nadu have taken all initiatives to address the gap between the inland fish seed production and supply, so as to stock all the public water bodies with quality fish

fingerlings to increase the inland fish production of the State. In order to reach the technological advancements in fisheries sector to the field, subsidy schemes on Re-circulatory Aquaculture System (RAS) and Bio-floc fish culture are being implemented.

The Government have a clear vision to largely expand the brackishwater aquaculture towards doubling the seafood exports from the State, while optimally utilizing the coastal fallow lands. Development of requisite cold chain facilities to assist the pre-processing, processing and exports are well planned and executed.

The total fish production of the country was 14.16 million MT in 2019–20. Tamil Nadu ranks 2nd in total marine fish production of the country. The total fish production of Tamil Nadu during 2019-20 was 7.57 lakh MT. India being one of the leading exporters of seafood in the world, the State contributes significantly to the total exports.

Tamil Nadu exported 1.10 lakh MT of marine products and earned a foreign exchange of Rs.5,565.46 crore during 2020-21, while the total seafood export of the country stands at 11.49 lakh MT valued at Rs.43,717.26 crore.

2. FISHERIES POLICY PERSPECTIVE

The fisheries policy perspective of the Government of Tamil Nadu is to ensure fishermen welfare, to augment fish production, to 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, management of fishery resources and increasing the fish production through aquaculture".

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 inland, brackishwater and marine resources.
4. Creating alternative livelihood opportunities to the fishers.

5. 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.
6. Generating additional rural employment opportunities through fish culture.
7. Empowerment of fisherwomen in livelihood activities with a special focus on fisher widows.
8. Bridging the gap between the demand and supply of fish seed.
9. Harnessing the opportunity of expanding export market for high value fish and fishery products.
10. Conserving fishery resources, stock enhancement and management through enforcement of relevant Acts, Rules and Regulations.
11. Capacity building and skill upgradation for

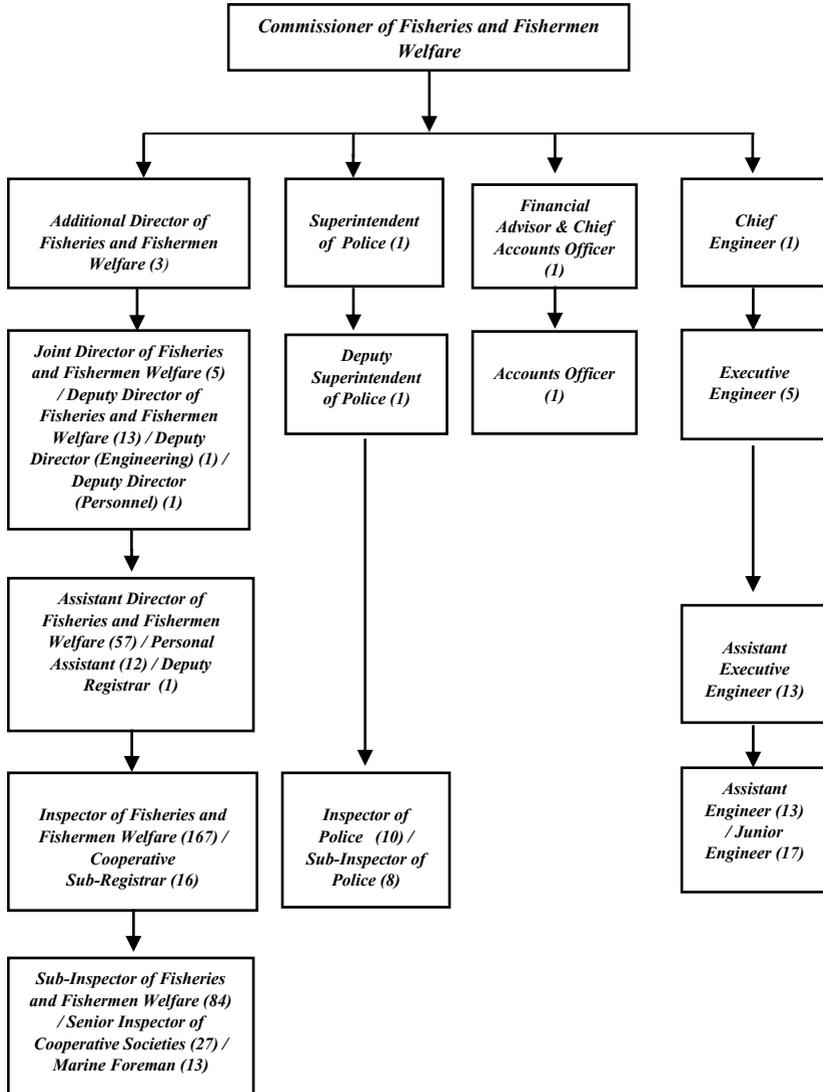
fishers and departmental officials (Human Resource Development), thrust in Research & Development and technological interventions in Fisheries sector.

12. Re-assessment of the fishery resources and their potential in the State of Tamil Nadu.
13. Ensuring transparency in implementation and monitoring of developmental schemes and welfare measures through e-Governance.

3. ADMINISTRATIVE SETUP

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), the Functional Registrar of all Fishermen and Fisherwomen Co-operative Societies including Tamil Nadu State Apex Fisheries Co-operative Federation Limited (TAFCOFED) and the Member Secretary of Tamil Nadu Fishermen Welfare Board (TNFWB).

Organogram



The total sanctioned staff strength of the Fisheries and Fishermen Welfare Department is 1,797. The category-wise staff strength is given in Table 1.

Table: 1
Category wise staff strength

Sl. No.	Name of the Post	No. of Posts (Sanctioned+deputation)
1.	Commissioner of Fisheries and Fishermen Welfare	1
2.	Additional Director of Fisheries and Fishermen Welfare	2+1
3.	Joint Director of Fisheries and Fishermen Welfare	4+1
4.	Deputy Director of Fisheries and Fishermen Welfare	11+2
5.	Deputy Director (Personnel)	1
6.	Deputy Director (Engineering)	1
7.	Financial Advisor & Chief Accounts Officer	1
8.	Asst. Director of Fisheries and Fishermen Welfare / Asst. Director of Fisheries and Fishermen Welfare (Mechanical)	49+8
9.	Personal Assistant	12
10.	Deputy Registrar	1

Sl. No.	Name of the Post	No. of Posts (Sanctioned+ deputation)
11.	Accounts Officer	1
12.	Inspector of Fisheries and Fishermen Welfare	167
13.	Cooperative Sub-Registrar	16
14.	Marine foreman	13
15.	Sub-Inspector of Fisheries and Fishermen Welfare	84
16.	Senior Inspector of Cooperative Societies	27
17.	Fishery Assistant	168
18.	Ministerial and field staff	1,028
	Total	1,587
Engineering Wing		
1.	Chief Engineer	1
2.	Executive Engineer	5
3.	Assistant Executive Engineer	13
4.	Assistant Engineer	13
5.	Junior Engineer	17
6.	Senior Draughting Officer	1
7.	Draughting Officer	8
8.	Junior Draughting Officer	4
9.	Divisional Accountant	4
10.	Technical Assistant	23
11.	Ministerial and supporting staff	9
	Total	98

Sl. No.	Name of the Post	No. of Posts (Sanctioned+deputation)
Marine Enforcement Wing		
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
	Total	112
	Grand Total	1,797+12

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 MT of marine fish production (2020-21), from which 1.10 lakh MT was exported with a foreign exchange value of Rs.5,565.46 crore. This supports the livelihood of 10.48 lakh marine fisherfolk. There are 5,924 mechanized and 43,982 traditional fishing crafts, which are actively engaged in fishing.

Tamil Nadu possess 3.85 lakh hectares effective inland water spread area comprising reservoirs, major and minor irrigation 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 1,932 farms in an area of 3,837.33 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- 2021-22

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)	
Mechanized boats	5,924
Traditional Crafts (Motorized and non-motorized)	43,982 (40,181 + 3,801)
Infrastructure Facilities	
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 (Thiruvottiyurkuppam, Azhagankuppam-Alambaraikuppam, Vellapallam, Tharangambadi, Arcottuthurai and Nambiyar Nagar.
Fish Landing Centres/ Jetties	52
Fish Landing Points	251
Marine Fish Production (2020-21)	5.48 lakh MT
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 3.85 lakh ha of inland water resources. The inland fishery resources include reservoirs, major and minor irrigation tanks and ponds which are amenable to both capture and culture fisheries.

An overview of the inland fisheries sector is given in Table: 3.

Table: 3
Inland Fisheries Statistics- 2021-22

Inland Fishery Resources	3,85,761 ha
Reservoirs	62,015 ha
Major, Minor Irrigation Tanks and Ponds	2,67,746 ha
Brackishwater area	56,000 ha
Population of inland fishers	2.36 lakh
Inland Fisheries Infrastructure	
Fish Seed Production Centres	
Government Fish Farms	11
Private Fish Farms	46
Fish Seed Rearing Centres	
Government Fish Farms	39

Private fish farms	271
TNFDC Fish Seed Rearing Farms	5
Fish Seed Rearing in cages (Government)	3
Inland Fish Production (2020-21)	1.75 lakh MT

The Government have always paid attention to increase the fish production from inland waterbodies by stocking quality fish seeds in the reservoirs. Also encouraging leasing of tanks owned by Water Resources Department (WRD) through intensive inland fish culture scheme in five Districts such as Villupuram, Kallakurichi, Cuddalore, Madurai and Theni, promotion of fish culture in irrigation tanks through District Fish Farmers Development Agencies (DFFDAs) and by insisting the water body owning Departments to lease out the potential water bodies for fish culture. The Government have also taken special measures for stocking of fish seeds in inland water bodies through various schemes.

4.3 Coastal Aquaculture and Brackishwater Fisheries

The coastal aquaculture has the ability to contribute for increasing fish production, providing employment opportunities and generating economic benefits for all sectors of the society. Tamil Nadu is gifted with a long coastline, vast area of estuaries, backwaters and saline areas, where brackish water aquaculture can be taken up.

At present, the State coastal aquaculture is dominated by shrimp culture. Apart from encouraging the farmers to grow shrimps in brackishwater areas, the Government is committed to promote the culture of alternative species such as mud crab, milk fish, mullet and seabass, so as to provide an alternative livelihood for the coastal fisherfolk.

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 in inland and marine waters through ranching programme.
- vii. Development of inland fisheries and aquaculture through Union and State Government schemes.

- viii. Development of infrastructure facilities like fishing harbours, fish landing centres and Government fish farms.
- ix. Hygienic marketing of fish and fishery products and establishing cold chain facilities.
- x. Special focus on alternative livelihood of fisherwomen.
- xi. Capacity building and skill development for fish farmers and fishers.
- xii. Outreach and extension activities.
- xiii. Management of fisheries cooperatives.
- xiv. Improving the socio-economic status of the fishers through alternative livelihood activities.
- xv. Introduction of advanced technologies to increase fish production.

- xvi. Implementation of welfare schemes to the fishers by providing subsidized diesel and kerosene.
- xvii. Providing relief and assistance through Tamil Nadu Fishermen Welfare Board.

5.1 Marine Fisheries Activities

The Government always accord highest priority to improve the living standards of fishers in the State by implementing several welfare schemes. In order to ensure the benefits of welfare schemes to reach the beneficiaries immediately and in a transparent manner, the amount is being disbursed directly to the individuals' bank account.

The Government of Tamil Nadu have released an amount of Rs.320.03 crore under various welfare schemes during the year 2021-22.

The details of various welfare schemes are given below:

I. STATE SCHEMES

5.1.1 Financial assistance 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-day fishing ban period is implemented from April 15th to June 14th in the East Coast region and June 1st to July 31st in the West Coast region (Rajakkamangalamthurai to Neerodi). During the year 2021-22, a sum of Rs.85.62 crore was disbursed to 1,71,234 fishermen families of 14 coastal districts.

This scheme will be continued in the year 2022-23 as well.

5.1.2 Special allowance to marine fishermen families during Lean Fishing Period

To alleviate the sufferings of the marine fishermen families who are actively involved in marine fishing activities, the Government of

Tamil Nadu is extending relief assistance to marine fishermen families during lean fishing months.

This Government have enhanced the relief assistance from Rs.5,000 to Rs.6,000 to marine fishermen families in the month of October, 2021. Further, the Government have sanctioned relief amount of Rs.108 crore for disbursement to fishermen families during 2021-22, out of which an amount of Rs.90.89 crore has been disbursed to 1,51,484 marine fishermen families of 12 coastal districts. For Thoothukudi and Tirunelveli districts, disbursement of relief will be completed by May 2022. This scheme will be continued in the year 2022-23 also.

5.1.3 National Fishermen Savings-cum-Relief Scheme (NFSRS)

Under this scheme, fishermen are paid Rs.4,500 per beneficiary which includes fishermen

contribution of Rs.1,500 paid by them in nine months and Government contribution of Rs.3,000.

The Government have sanctioned an amount of Rs.63.19 crore during 2021-22, out of which an amount of Rs.52.52 crore has been disbursed to 1,75,072 marine fishermen of 12 coastal districts from Thiruvallur to Ramanathapuram and Kanniyakumari Districts. Disbursement for Thoothukudi and Tirunelveli districts will be done during May 2022.

This scheme will be continued in the year 2022-23.

5.1.4 Savings-cum-Relief scheme for marine fisherwomen

This scheme is implemented as State scheme for marine fisherwomen. Under this scheme, fisherwomen contribute Rs.1,500 paid by them in nine months as their share. The State Government contributes Rs.3,000 and a sum of

Rs.4,500 including the fisherwomen contribution is disbursed to the beneficiaries during the lean fishing months.

The Government have sanctioned an amount of Rs.62.80 crore during 2021-22 as its contribution, out of which an amount of Rs.52.10 crore has been disbursed to 1,73,671 marine fisherwomen of 12 coastal districts from Thiruvallur to Ramanathapuram and Kanniyakumari Districts. Disbursement for Thoothukudi and Tirunelveli districts, will be done during May 2022.

This scheme will be continued in the year 2022-23.

5.1.5 Supply of Tax-exempted Diesel to Fishing Boats

The Government of Tamil Nadu provides tax exempted diesel to the registered mechanized and motorized fishing boats, subject to a

maximum of 18,000 litres per boat per year (1,800 litres for 10 months except two months of fishing ban period) to mechanized fishing boats and subject to a maximum of 4,000 litres per craft per year to motorized country crafts.

During the year 2021-22, a quantity of 93,858.41 KL diesel (up to February 2022) has been supplied with a subsidy amount of Rs.166.36 crore. This scheme will also be implemented during 2022-23.

5.1.6 Supply of subsidized Industrial Kerosene to the Traditional Fishing Crafts

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

During the year 2021-22, a quantity of 14,544.37 KL of industrial kerosene (up to

February 2022) has been supplied with a subsidy amount of Rs.39.34 crore. This scheme is being implemented during 2022-23 also.

5.1.7 Daily relief to marine fishermen apprehended by neighbouring Countries

The Government supports the families of fishermen who are apprehended by Sri Lanka and other neighbouring countries while fishing, by providing daily allowance of Rs.250 to the family of the apprehended fishermen. The scheme is being implemented through the District Collectors for providing relief.

During the year 2021-22, a sum of Rs.12.37 lakh has been released as daily relief to 101 fishermen families. This scheme will be continued during 2022-23 as well.

5.1.8 Daily relief to the families of missing fishermen while 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 for two years or until they receive monetary benefits through Group accident insurance scheme/ Tamil Nadu Fishermen Welfare Board. A sum of Rs.13.67 lakh has been released for the year 2021-22.

This scheme will be continued during 2022-23 as well.

5.1.9 Relief to the families of deceased fishermen/ injured fishermen due to shooting incidents by Sri Lankan Navy

The fishermen of coastal Districts, who fish in traditional waters of the Palk Bay are apprehended/ harassed and sometimes even shot 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 in shooting at sea. In the case of deceased fisherman being the sole bread-winner 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 have provided an ex-gratia amount of Rs.10 lakh from Chief Minister's Public Relief Fund to the family of one deceased fisherman who died in the incident of Sri Lankan Naval craft collision with fishing boat. In another incident, an ex-gratia amount of Rs 20,000 was provided to one fisherman who has sustained injuries.

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

To support the fishers to harvest the relatively under exploited 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 up to a maximum of Rs.30 lakh is provided as subsidy for construction of new Tuna Long liner-cum-Gill netter boat.

Under this scheme, an amount of Rs.51.30 crore was released by the Government for construction of 171 boats. An amount of Rs.29.41 crore has been released as subsidy to 99 completed boats and five boats are under construction. Work orders will be issued for the remaining 67 boats after the receipt of

recommendation from Regional Scrutiny and Monitoring Committees (RSMCs).

II. Centrally Sponsored Schemes

5.1.11 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 new scheme, an amount of Rs.5 lakh to deceased fisherman and an amount of Rs.2.50 lakh to injured fisherman is provided as relief. For the year 2021-22, an amount of Rs.1.19 crore was paid to NFDB as State share of premium for 5,23,237 fisher beneficiaries. This scheme policy is valid from 18.10.2021 to 25.07.2022.

This insurance scheme will be renewed this year also.

5.1.12 Motorization of Traditional Crafts

Subsidy of 40% of the unit cost of the engine or Rs.48,000 whichever is less is being provided towards the purchase of Outboard motor (OBM)/ Inboard engine (IBE), for the traditional fishing crafts.

During the year 2021-22, under State scheme, 1,374 nos. of OBM/IBE have been supplied at a total subsidy of Rs.4.80 crore.

The Government have accorded administrative sanction for an amount of Rs.24 crore and Rs.9.71 crore was released for the supply of 2,000 nos. of OBM/IBE to traditional fishermen. The scheme is under implementation.

5.1.13 Subsidy assistance for construction of FRP boats with accessories as a replacement for Traditional/Wooden Boats

In order to improve the income of the traditional fishermen, 40% subsidy for replacing the catamaran with FRP boat with outboard motor, nets and insulated ice boxes are being provided.

The Government have accorded administrative sanction for a total amount of Rs.8.50 crore for the procurement of 200 boats and other implements. Under Blue Revolution scheme, 100 units at a unit cost of Rs.4.25 lakh with Rs.1.70 lakh subsidy and 100 units under PMMSY at a unit cost of Rs.5 lakh with Rs.2 lakh subsidy will be provided. The scheme is under implementation.

5.2 Fishing Regulation and Law Enforcement

5.2.1 Registration of Fishing Vessels

To monitor the operation of fishing boats and also to ensure coastal security, registration of fishing vessels is done through 'ReAlCraft' website. A total of 5,924 mechanized fishing boats, 40,181 motorized and 3,801 non-motorized traditional crafts have been registered up to 31.03.2022.

5.2.2. Marine Enforcement Wing

In order to enforce the Tamil Nadu Marine Fishing Regulation (TNMFR) Act and Rules and to handle inter sector conflicts and law and order issues arising due to fishing and related activities, an exclusive Marine Enforcement Wing was established in Fisheries and Fishermen Welfare Department 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 permanent posts of one Superintendent of Police, one Deputy Superintendent of Police, 10 Inspectors of Police, eight Sub-Inspectors of Police, 53 Police Constables and 19 Police Drivers.

The main function 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 action.

The Government have accorded financial sanction of Rs.8.65 crore towards recurring expenditure for Marine Enforcement Wing.

5.3 Conservation and Management of Fishery Resources

The Department is taking efforts for conservation and stock enhancement measures such as imposing seasonal fishing ban, sea ranching programme, habitat development like deployment of artificial reefs and encouraging diversified fishing practices.

Marine fisheries sector is effectively managed with an eco-friendly and people's participatory approach under co-management principles. This involves the stakeholders to conserve the fisheries resources effectively in their region. Fishing harbour management committees have been constituted to manage various fishing harbours and fish landing centres of the State on co-management principle.

5.3.1 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 and EEZ every year. 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 and from June 1st to July 31st in the West Coast).

5.3.2 Conservation of Sea Turtles

To conserve the Sea turtles, the Government have notified to fix the Turtle Excluder Device (TED) before the cod end of the trawl net. Fishing is prohibited in a radius of five nautical miles around the potential turtle nesting and breeding grounds during the breeding season i.e., for a period of four months from 1st January to 30th April of every year (both days inclusive).

5.4 Disaster preparedness, Rescue and Rehabilitation Measures

The Department of Fisheries and Fishermen Welfare is practicing the following Standard Operating Procedure (SOP) to ensure the safety and security of fishermen at times of natural disaster and adverse weather conditions.

- a. Dissemination of weather information and cyclone warnings to fishers
- b. Central Control Room at the office of the Commissioner of Fisheries and Fishermen Welfare with essential communication equipments and is functioning round the clock, provided with a dedicated telephone line (044-29530392).
- c. Coordinating with all security agencies such as Coastal Security Group / Coast Guard / Navy in Search and Rescue (SAR).

5.4.1 Measures for Communication and Safety of Fishermen at Sea

5.4.1.1 Providing Wireless Communication Network Facilities

In order to ensure the safety of fishermen in sea, communication network 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. The Department of Fisheries and Fishermen Welfare has provided 20,930 nos. of VHF sets among which 17,795 nos. of 5-watt hand held VHF sets to motorized fishing crafts at free of cost and 3,135 nos. of 25-watt VHF sets to mechanized fishing crafts with 75% subsidy.

5.4.1.2 Installation of 'Transponders' in Mechanized Fishing Boats

The Union Government, through Indian Space Research Organization (ISRO) has developed transponders as a means of communication and tracking system for deep sea fishing vessels which will help in monitoring the fishing vessels and render assistance at the time of distress in deep sea up to 200 NM.

The Union Government have sanctioned an amount of Rs.18.01 crore for installation of transponders in 4,997 mechanized fishing boats of Tamil Nadu. 15 prototype transponders have been installed in mechanized fishing boats for field study. The supply and installation will be completed by this year.

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, 160 Satellite phones, 200 NavIC and 80 Navtex message receivers have been installed in 80 clusters of boats engaged in deep sea fishing, free of cost at a total cost of Rs.2.28 crore.

Satellite phones have been distributed to 500 deep sea fishing boats of Tamil Nadu at a cost of Rs.5 crore with 75% subsidy of the unit cost during 2021-22.

5.4.1.4 WebGIS 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 and Fishermen Welfare in association with the National Centre for Coastal Research (NCCR), Ministry of Earth Sciences (MoES), created a mobile application "THOONDIL", a Web GIS based Decision Support System.

This application assists 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), weather forecast and fishing trip records etc., which can be used by the fishermen at sea to ensure their own safety.

5.4.2 Relief assistance to fishing boats damaged during non-cyclone period

A revolving Fund has been created by the Government of Tamil Nadu to provide immediate relief assistance to the fishermen whose boats / fishing implements / houses for damages during non-cyclone period. An amount of Rs.10 lakh each to all the coastal Districts totalling to Rs.1.30 crore has been provided as revolving fund to the coastal District Collectors.

During 2021-22, Rs.10.49 lakh has been released as relief to 28 fishing boats that were damaged due to inclement weather conditions.

5.4.3 Relief measures to the victims of Cyclones and Monsoon

5.4.3.1 'Tauktae' Cyclone:

During the 'Tauktae' cyclone, in two different incidents, 21 Tamil Nadu fishermen were missing and they could not be traced. Hence, the Government of Tamil Nadu have sanctioned a sum of Rs.4.20 crore as relief, Rs.20 lakh each was released to the bereaved families of the missing fishermen due to 'Tauktae' cyclone.

5.4.3.2 North East Monsoon 2021

During the North East Monsoon 2021, due to heavy rainfall and wind, mechanized fishing boats, FRP boats, catamaran, fishing nets and fish farms were damaged in Chennai,

Chengalpattu, Villupuram, Cuddalore, Kallakurichi and Ramanathapuram Districts. Hence, considering their loss of livelihood, the Hon'ble Chief Minister of Tamil Nadu has announced on 21.01.2022, a relief of Rs.5.66 crore to the damages caused during North East Monsoon 2021. Subsequently, the Government of Tamil Nadu have sanctioned a sum of Rs.5.66 crore as relief.

5.5 Protection of Traditional Fishing Rights of Tamil Nadu Fishermen

5.5.1 Retrieval of Katchatheevu

There are 2,490 mechanized fishing vessels, 12,443 motorized fishing vessels and 1,020 country crafts that are engaged in fishing in the traditional waters of Palk Bay area. Fisherfolk population of 2,08,827 are living in 286 fishing villages in Palk Bay districts. Around 80,000 fishermen directly depend on fishing in Palk Bay districts viz. Ramanathapuram,

Thanjavur, Pudukottai and Nagapattinam for their livelihood and a large section of coastal community indirectly depends on the fishing in the traditional waters of Palk Bay.

The Tamil Nadu fishermen are often arrested while fishing in their traditional waters by Sri Lankan Navy in the pretext of crossing International Maritime Boundary Line (IMBL). The prolonged incarceration of our fishermen and their fishing boats by the Sri Lankan Government have been causing a sense of anxiety and insecurity among the fishermen community of Tamil Nadu as a whole.

Hence, retrieval of "Katchatheevu" back to India and restoration of the traditional fishing rights of Indian fishermen in the Palk Bay area are on the topmost agenda of the Government of Tamil Nadu. The Government is taking tireless efforts for the retrieval of "Katchatheevu" unilaterally given by the Union Government to

Sri Lanka in 1974. An unanimous resolution was also passed in the Tamil Nadu Legislative Assembly in this regard. Accordingly, the Government of Tamil Nadu impleaded itself in the case filed before the Hon'ble Supreme Court of India and urged the Union Government to retrieve Katchatheevu.

In the SLP.No.8013/2017, an individual sought *Writ of Mandamus* against the Union Government to give effect to/enforce Article 6 of the 1974 agreement entered between India and Sri Lanka and delete objectionable provision of the letter dated 23.03.1976. The Government of Tamil Nadu has filed counter affidavit in the Hon'ble Supreme Court of India on 05.08.2021.

In this regard, the Hon'ble Chief minister has addressed the Hon'ble Prime Minister of India, through Memorandum on 17.06.2021. On 01.04.2022, the Hon'ble Minister for Fisheries-Fishermen Welfare and Animal Husbandry

submitted Memorandum to Hon'ble Union Minister for Fisheries, Animal Husbandry and Dairying to arrive at a permanent solution to the problems faced by Tamil fishermen and to restore their right to fish in the traditional waters. The Government of Tamil Nadu, therefore, reiterate its consistent stand that a permanent solution to this vexatious problem faced by our fishermen will be possible only by restoring India's sovereignty over Katchatheevu, thereby restoring their rights to fish in their traditional waters.

5.5.2 Efforts taken by the Government to release Tamil Nadu Fishermen and their Fishing Boats apprehended by Sri Lankan Navy

The Tamil Nadu fishermen are often apprehended while fishing in their traditional waters by the Sri Lankan Navy in the pretext of crossing International Maritime Boundary Line (IMBL). With a deep sense of concern on the

repeated incidents, the Hon'ble Chief Minister of Tamil Nadu has written many letters to the Hon'ble Prime Minister of India bringing the incidents to the notice for immediate remedial action through diplomatic channels.

The Government of Tamil Nadu have been constantly demanding the Union Government to decisively use diplomatic channels to secure the immediate release of apprehended fishermen of Tamil Nadu and also to prevent the recurrence of such incidents. Whereas the arrested fishermen had spent a longest duration of 113 days in Sri Lankan custody during the yesteryears, now due to the efforts taken by this Government, the fishermen were released with a shortest span of 16 days. Continuous efforts are being taken to release the 88 fishing boats and 23 fishermen (as on 31.03.2022) detained by the Sri Lankan Government. On 01.04.2022, the Hon'ble Minister for Fisheries-Fishermen Welfare

and Animal Husbandry submitted a Memorandum to the Hon'ble Union Minister for Fisheries, Animal Husbandry and Dairying to release the arrested fishermen and the apprehended fishing boats at the earliest.

5.5.3 Relief given to Unsalvageable Fishing Boats apprehended by the Sri Lankan Government

Tamil Nadu fishing boats which were apprehended by the Sri Lankan Navy could not be salvaged even after the boats were released by the Sri Lankan Government and remained in various harbours of Sri Lanka. Considering the loss of livelihood of the boat owners of the apprehended fishing Boats, the Hon'ble Chief Minister of Tamil Nadu announced a relief amount of Rs.5.66 crore to the boat owners on 21.01.2022, in which an amount of Rs.5.61 crore has been allocated as relief to the owners of 122 unsalvageable boats (108 mechanized fishing boats and 14 motorized country crafts) at the rate

of Rs. 5 lakh for the mechanized fishing boat and Rs.1.50 lakh for the country craft.

5.5.4 India-Sri Lanka Joint Working Group (JWG) on Fisheries

Joint Working Group meetings are being conducted to release the fishermen and fishing boats, procedures and protocols to be followed during the patrolling, apprehension and also to handle the fishermen in humanitarian manner and release. So far, five 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 apprehended by the Sri Lankan Navy were reiterated.

During the 5th JWG meeting on fisheries between India and Sri Lanka held on 25.03.2022, the following salient points were addressed by our side;

- i. to enhance cooperation on patrolling during fishing days,
- ii. sharing the enquiry report on the recent death of Tamil Nadu fishermen,
- iii. exercising maximum precaution and humanitarian approach during apprehension,
- iv. release the boats on humanitarian ground since those boats are the only source of livelihood of Tamil Nadu fishermen,
- v. the Tamil Nadu boats which were apprehended before the Sri Lanka Fishing Act amendment, 2018 may be released,
- vi. both the countries agreed to conduct collaborative research to improve the marine environment/ ecosystem in Palk Bay region,
- vii. steps taken by Tamil Nadu to protect marine environment of Palk Bay area to reduce the fishing pressure in inshore waters,

- viii. to organize fishermen level talk, to ease out the tension between both the countries.

5.6 Coastal Aquaculture and Mariculture:

5.6.1 Coastal Shrimp Farming

In Tamil Nadu, an area of 6,500 ha is utilized for coastal aquaculture out of the estimated potential area of 12,000 ha. Shrimp aquaculture is the main activity with 1,932 farms accounting for 3,837.33 ha area registered under Coastal Aquaculture Authority (CAA). 71 shrimp hatcheries in the State cater to the seed requirements of our needs as well as neighbouring States. Out of the established capacity of 7,000 crore shrimp seed production in India, Tamil Nadu is contributing around 25 billion shrimp seeds from 82 registered hatcheries with the established capacity to produce 40 billion seeds. It accounts for an average of 30% of the National production and established seed production capacity.

Tamil Nadu is producing around 25,000 MT of shrimps out of 7.5 lakh MT of National production. At present, majority of the farmers are undertaking white-leg shrimp (*Penaeus vannamei*) farming, for which Letter of Permission (LOP) is provided by CAA based on the recommendation of District Level Committee (DLC).

Though the State has vast potential area for developing coastal aquaculture, as of now only 13% has been utilized in this regard. In order to promote this sector, the Government have completed a well-structured resource mapping study in six districts viz., Villupuram, Cuddalore, Thanjavur, Tiruvarur, Pudukkottai and Thoothukudi. 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 agriculture

crop cultivation and other economic activity and development of exclusive brackishwater aquaculture zones will be promoted in large land parcels.

5.6.2 Mariculture activities

The marine capture fish production is plateauing, indicating that sustainable fishing levels have been reached. Hence, there is a need to explore the possibility of the fish production through mariculture. 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 of the Union Government, the State is also promoting the Mariculture sector by utilizing the available natural resources in a sustainable manner. For the promotion of mariculture, the State Government is taking special initiatives to demarcate suitable

sites for different mariculture activities based on scientific criteria including the socio-cultural attributes and other logistics.

5.6.3. Seaweed Culture

Seaweeds are macroalgae growing in marine and shallow coastal waters. The major types are red, brown and green seaweeds. In India, there are 844 species available in the natural system. Among them, 60 species are commercially important, of which, 10 species are predominantly cultivated.

The Department of Fisheries and Fishermen Welfare has been actively promoting seaweed farming as an alternative livelihood activity for fisherfolk. Under various Union and State Government schemes, the Department has distributed 16,262 seaweed rafts and monolines to 1,926 fisherwomen to do seaweed farming. By this initiative, the present average annual seaweed production in Tamil Nadu is 10,000 MT.

To expand seaweed culture in potential coastal districts through scientific and traditional seaweed farming, a multipurpose seaweed park is being established in Tamil Nadu in collaboration with Government of India.

Table: 4

Hub1 - Seaweed seed cultivation park	Hub2 - Seaweed processing park
<ul style="list-style-type: none"> ➤ Tissue Culture Lab ➤ Indoor Plantlet Culture unit ➤ Outdoor Seed Cultivation Pond ➤ Training complex ➤ Drying Platforms ➤ Water Testing Labs ➤ Plots for pond-based cultivation of seaweed. ➤ Water Intake System and Reservoirs. ➤ Effluent Treatment Plant ➤ Desalination Plant ➤ Road System, Power Supply and Backup Generator 	<ul style="list-style-type: none"> ➤ Plots for Processing Plant ➤ Administrative Block ➤ Product Innovation/R&D Centre ➤ Testing Laboratory ➤ Drying Platforms ➤ Storage Godowns ➤ Single Window Office ➤ Fresh Water Treatment Plant, Reservoir ➤ Incubation Centre ➤ Effluent Treatment Plant ➤ Road System, Power Supply and Backup Generator

5.6.4. Open Sea Cage Culture

The long coastline and calm open sea area that exist in Palk Bay and Gulf of Mannar region is an ideal place for promotion of open sea cage culture. Expansion of cage farming in the above area would certainly minimize the fishing pressure in Palk Bay and Gulf of Mannar region. 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. Under various State and Union Government schemes, so far, 220 cages at a project cost of Rs.947.29 lakh have been distributed to coastal fisherfolk for undertaking open sea cage culture.

The State has set up a Marine Finfish Seed Rearing Centre at Mandapam in Ramanathapuram District to supply an adequate quantity of fish seeds to the marine cage farmers.

5.7 Development of Fisheries Infrastructure

The Government is implementing various projects under different funding supports from the Union Government for improving fish landing points as fish landing centres, upgrading fish landing centres as fishing harbours and modernization of existing fishing harbours/ fish landing centres. These efforts help to ensure the safety of boats and fishermen, hygienic handling of fish, enhancing export avenues and better price realization for fish catch. Establishment of fishing harbours creates direct and indirect job opportunities to the fishermen and public.

5.7.1 Construction of Fishing Harbour at Tharangambadi, Mayiladuthurai District

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

Development Fund (FIDF). The harbour is designed with a Northern breakwater to a length of 340m, Southern breakwater of 1,070m and other land side facilities for hygienic handling of fish catch. The work is nearing completion.

5.7.2 Construction of Tuna Fishing Harbour at Thiruvottiyurkuppam, Tiruvallur District

The Government have accorded administrative sanction for Rs.200 crore under FIDF for construction of Tuna fishing harbour in Thiruvottiyurkuppam in Tiruvallur district. The harbour is designed with Northern breakwater to a length of 510m, Southern breakwater up to 849m and other landside facilities for the hygienic handling of Tuna and Tuna-like fish varieties. The work is in progress and 80% of the work have been completed.

5.7.3 Construction of Fishing Harbour at Vellapallam, Nagapattinam District

A fishing harbour with modern facilities is being established at an estimated cost of Rs.100 crore at Vellapallam, Nagapattinam District for which the Government have accorded administrative sanction under 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 fish catch. The works are in progress.

5.7.4 Renovation of Fishing Harbour at Mudhunagar in Cuddalore District

Renovation of fishing harbour at Mudhunagar in Cuddalore district is undertaken at a cost of Rs.100 crore under FIDF. The renovation work consists of water side facilities such as 1,040 m diaphragm wall, 600m retaining wall, additional facilities and other land side

facilities for hygienic handling of fish catch. The work is in progress and 90% of the works have been completed.

5.7.5 Establishing Fishing Harbours in Kaluveli waters in Alambaraikuppam, Chengalpattu District and Azhagankuppam, Villupuram District

The Government have accorded administrative sanction of Rs.235 crore for the construction of fishing harbours in Kaluveli waters at Alambaraikuppam in Chengalpattu District and Azhagankuppam in Villupuram District under FIDF. State level Coastal Regulation Zone (CRZ) clearance has been obtained. This project is designed with water side facilities such as training wall 900m, shore protection structure 300m, diaphragm wall 1,100m, Slipway 2 nos., dredging & reclamation, revetment 400m and other land side facilities for hygienic handling of catches. The preliminary

works are in progress.

5.7.6 Construction of Fishing Harbour at Arcottuthurai in Nagapattinam District

The Government have accorded administrative sanction for the construction of fishing harbour at Arcottuthurai in Nagapattinam District at an estimated cost of Rs. 150 crore under FIDF. This project is designed with Northern breakwater of 1,650m, Southern breakwater of 2,000m and piled Jetty of 340m, dredging and reclamation and other land side facilities. The work is in progress and 40% of the works have been completed.

5.7.7 Extension of Main Breakwater and providing additional infrastructure facilities at Thengapattinam fishing harbour in Kanniyakumari District

The Government have accorded administrative sanction for an amount of Rs.137 crore under FIDF for extension of main

breakwater and providing additional land side infrastructure facilities at Thengapattinam Fishing Harbour in Kanniyakumari District. This project is designed with extension of main breakwater for a length of 213m as per the recommendations of Central Water and Power Research Station (CWPRS) and establishment of landside facilities. The work is in progress and 25% of the works have been completed.

5.7.8 Extension of T-Jetty at Tharuvaikulam in Thoothukudi district

The Government have accorded administrative sanction for Rs.10 crore under FIDF for the extension of T-Jetty at Tharuvaikulam in Thoothukudi District. The work is in progress and 50% of the works have been completed.

5.7.9 Providing additional Berthing facilities in Thoothukudi Fishing Harbour

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

FIDF for providing additional berthing facilities in existing wharf at Thoothukudi fishing harbour. The work is in progress and 10% of the works have been completed.

5.7.10 Construction of Fish Landing Centre at Keelamunthal, Ramanathapuram District

The Government have accorded administrative sanction for Rs.10 crore under FIDF for the construction of fish landing centre at Keelamunthal, Ramanathapuram District. The work is in progress and 20% of the works have been completed.

5.7.11 Construction of Fish Landing Centres at Mandapam (North) and (South), Ramanathapuram District

The Government have accorded administrative sanction for Rs.20 crore under FIDF for the construction of fish landing centres

at Mandapam (North) and (South) in Ramanathapuram District. The work is in progress and 60% of the works have been completed.

5.7.12 Development of Cold Chain and Infrastructure Facilities in Mookaiyur Fishing Harbour, Ramanathapuram District

The Government have accorded administrative sanction for Rs.20 crore under FIDF for the development of forward-backward linkages, cold chain facilities and export infrastructure in Mookaiyur fishing harbour in Ramanathapuram District. The work is in progress and 30% of the works have been completed.

5.7.13 Construction of Fish Landing Centres at Vanagiri, Keelathottam, Vadakkammappattinam, Pudhukudi and Kottaipattinam and providing additional Infrastructure Facilities at Nagapattinam Fishing Harbour

The Government have accorded administrative sanction for Rs.28 crore under

FIDF for construction of fish landing centre at Vanagiri in Mayiladuthurai District, Keelathottam in Thanjavur District, Vadakkammappattinam, Pudhukudi and Kottaipattinam in Pudukkottai District and providing additional infrastructure facilities at Nagapattinam fishing harbour in Nagapattinam District. Preliminary works are in progress.

5.7.14 Construction of Fish Landing Centre at Aruvikarai, Tirunelveli District

The Government have accorded administrative sanction for Rs.10 crore under FIDF for construction of fish landing centre at Aruvikarai village in Tirunelveli District. Preliminary works are in progress.

5.7.15 Providing additional Facilities to Fish Landing Centres at Annankovil and Mudasalodai, Cuddalore District

The Government have accorded administrative sanction for Rs.19.50 crore under

FIDF for providing additional facilities to Fish Landing Centres at Annankovil and Mudasalodai villages in Cuddalore District. The work is in progress and 20% of the works have been completed.

5.7.16 Construction of Northern breakwater and Dredging of Barmouth in Nagore Fish Landing Centre, Nagapattinam District

The Government have 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, Nagapattinam District under NABARD-RIDF. 35% works have been completed and remaining works are in progress.

5.7.17 Permanent Stability of Barmouth at Pulicat (Pazhaverkadu), Tiruvallur District

The Government have accorded

administrative sanction of Rs.26.85 crore for the permanent stability of barmouth at Pulicat in Tiruvallur District under NABARD-RIDF. The statutory clearance and Ministry of Environment and Forests (MoEF) clearances were obtained. The works will be commenced shortly.

5.7.18 Construction of Fish Landing Centre at Roachmanagar, Thangachimadam in Ramanathapuram District and Chinnamedu, Kodyampalayam in Mayiladuthurai District

The Government have accorded administrative sanction of Rs.31.50 crore for construction of fish landing centre and shore protection works at Roachmanagar and Thangachimadam in Ramanathapuram District and Chinnamedu and Kodyampalayam in Mayiladuthurai District under NABARD-RIDF. The works are in progress.

5.7.19 Construction of Fish Landing Centre at Thazhankuda, Cuddalore District

The Government have accorded

administrative sanction of Rs.13.06 crore for the construction of fish landing centre at Thazhankuda in Cuddalore District under NABARD-RIDF. The works are in progress and 40% works have been completed.

5.7.20 Providing Infrastructure Facilities at Kalimangundu, Thondi and Mullimunai, Ramanathapuram District

The Government have accorded administrative sanction of Rs.4.92 crore for providing infrastructure facilities at Kalimangundu, Thondi and Mullimunai in Ramanathapuram District. 50% works have been completed.

5.7.21 Construction of Integrated Office Buildings and Training Centres at Tiruchirappalli, Cuddalore and Radhapuram, Tirunelveli District

The Government have accorded administrative approval for a sum of Rs.9.60 crore for the construction of integrated

office buildings and training centres at Tiruchirappalli, Cuddalore and Radhapuram in Tirunelveli District under FIDF. The works are in progress.

5.7.22 Conducting Studies to establish new Fishing Harbours at Pulicat, Uvari, Rameswaram and Vaniyakudi

Based on the fishermen representations, the Government have accorded administrative approval for a sum of Rs.4 crore for conducting studies to establish fishing harbour at Pulicat in Tiruvallur District (Rs.1 crore), Uvari in Tirunelveli District (Rs.1 crore), Rameswaram in Ramanathapuram District (Rs.1 crore), Vaniyakudi in Kanniyakumari District (Rs.1 crore) under State scheme. The study will be commenced shortly.

5.7.23 Conducting Studies for Expansion and Modernisation of Fishing Harbours at Thoothukudi and Colachel

The Government have accorded administrative sanction for a sum of Rs.2 crore for conducting studies for expansion of fishing harbours at Thoothukudi (Rs.1 crore) and Colachel in Kanniyakumari District (Rs.1 crore) under State fund. The study work will be commenced shortly.

5.7.24 Construction of Fish Landing Centre and Shore Protection Works at Kadalore Periyakuppam, Kadalore Chinnakuppam, Kokilamedu, and Alikuppam, Chengalpattu District

The Government have accorded administrative sanction for Rs.39 crore under NABARD-RIDF for the construction of fish landing centre and shore protection works at Kadalore Periyakuppam, Kadalore Chinnakuppam, Kokilamedu and Alikuppam in Chengalpattu District. The works will be commenced shortly.

5.7.25 Providing Permanent Stability of Barmouth and Development of Fish Landing Centre at Manapad, Thoothukudi District

The Government have accorded

administrative sanction for Rs.45 crore under NABARD-RIDF for providing permanent stability of bar mouth and development of fish landing centre at Manapad in Thoothukudi District. Two training walls of length 940m (South) and 120m (North) will be constructed for permanent opening of barmouth. The work will be commenced shortly.

5.7.26 Construction of Fish Landing Centre at Veerapandianpattinam, Jeeva Nagar (Tiruchendur), Amali Nagar, Alanthalai, Kulasekarapattinam and Fishermen Colony (Near Thermal-II), Thoothukudi District

The Government have accorded administrative sanction for Rs.17 crore under NABARD-RIDF for the construction of fish landing centre at Veerapandianpattinam, Jeeva Nagar (Tiruchendur), Amali Nagar, Alanthalai, Kulasekarapattinam and Fishermen Colony (Near Thermal - II) in Thoothukudi District. The works will be commenced shortly.

5.7.27 Development of Fish Landing Centres at Sippikulam, Therespuram and Keelavaippar in Thoothukudi District, Thirumullaivasal, in Mayiladuthurai District and Sethubavachatram in Thanjavur District

The Government have accorded administrative sanction for Rs.66 crore under NABARD-RIDF for the development of fish landing centres at Sippikulam, Therespuram and Keelavaippar in Thoothukudi District, Thirumullaivasal in Mayiladuthurai District and Sethubavachatram in Thanjavur District. The works will be commenced shortly.

5.7.28 Providing Shore Protection Works and Construction of Fish Landing Centre at Angalamkuppam, Pudhu Nadukuppam, Pazhaya Nadukuppam, Karikattukuppam and Semmencherikuppam in Chengalpattu District

The Government have accorded administrative sanction for Rs.57 crore under

NABARD-RIDF for providing shore protection works and construction of fish landing centres at Angalamankuppam, Pudhu Nadukuppam Pazhaya Nadukuppam, Karikattukuppam & Semmencherikuppam in Chengalpattu District. The works will be commenced shortly.

5.7.29 Construction of additional Groynes for Shore Protection at Kesavaputhanthurai & Puthanthurai and Fish Landing Centre at Keelamanakudy and Melamanakudy in Kanniyakumari District

The Government have accorded administrative sanction for Rs.101 crore under NABARD-RIDF for construction of additional groynes for shore protection at Kesavaputhanthurai, Puthanthurai and construction of fish landing centres at Keelamanakudy, Melamanakudy in Kanniyakumari District. The works will be commenced shortly.

5.7.30 Providing Permanent Stability of Vellar barmouth and Chinnavaikal Barmouth at Killai, Cuddalore District

The Government have accorded administrative sanction for Rs.70 crore under NABARD-RIDF for providing permanent stability of Vellar barmouth and Chinnavaikal barmouth at Killai in Cuddalore District. For permanent stability of barmouth at Vellar, two training walls of length 512m will be constructed. For permanent stability of barmouth at Chinnavaikal, two training walls of length 305m will be constructed. The works will be commenced shortly.

5.7.31 Construction of Fish Landing Centre and Shore Protection Works at Periyakuppam, Cuddalore District, Ekkiyarkuppam and Anumanthai, Villupuram District

The Government have accorded administrative sanction for Rs.22 crore under

NABARD-RIDF for the construction of fish landing centre and shore protection works at Periyakuppam in Cuddalore District and Ekkiyarkuppam, Anumanthai in Villupuram District. The works will be commenced shortly.

5.7.32 Construction of Fish Landing Centre at Pudhukuppam and C. Pudhupettai, Cuddalore District

The Government have accorded administrative sanction for Rs.13 crore under NABARD-RIDF for construction of fish landing centre at Pudhukuppam and C. Pudhupettai in Cuddalore District. The works will be commenced shortly.

5.7.33 Construction of additional Groynes for Shore Protection at Nambiyar Nagar, Nagapattinam District

The Government have accorded administrative sanction for Rs.10 crore under NABARD-RIDF for the construction of additional groynes for shore protection at Nambiyar Nagar

fishing harbour in Nagapattinam District. The work will be commenced shortly.

5.7.34 Improvements to Vanagiri Fish Landing Centre in Mayiladuthurai District

The Government have accorded administrative sanction for Rs.55 crore under NABARD-RIDF for the improvements to Vanagiri Fish Landing Centre in Mayiladuthurai District. This fish landing centre is upgraded with construction of training wall of 245m length (2 nos.), construction of short groynes of length 50m (2 nos.), construction of wharf and diaphragm wall- 580m, and approach road - 300m. The works will commence shortly.

5.7.35 Renovation of Boat Jetties at Rameswaram Fish Landing Centre

The Government have accorded administrative sanction for Rs.22.77 crore under NABARD-RIDF for the improvements and

renovation to the boat jetties at Rameswaram in Ramanathapuram District. This project is designed with construction of approach jetty of 200m length and landing jetty of 150m length. The work will be commenced shortly.

5.7.36 Providing Shore Protection Works at Mandapam North, Ramanathapuram District

The Government have accorded administrative sanction for Rs.30 crore under NABARD-RIDF for providing shore protection works at Mandapam North in Ramanathapuram District. This project is designed with construction of Northern breakwater of 843m length and construction of auction Hall. The works will be commenced shortly.

5.7.37 Providing Shore Protection Works at Mandapam South, Ramanathapuram District

The Government have accorded administrative sanction for Rs.50 crore under

NABARD-RIDF for providing shore protection works at Mandapam South in Ramanathapuram District. This project is designed with construction of Southern breakwater of 1,032m length, construction of short groynes of length 84m and construction of auction hall. The work will be commenced shortly.

5.7.38 Improvements to the Fish Landing Centres at Kodimunai, Simon colony and Kurumpanai in Kanniyakumari District

The Government have accorded administrative sanction for Rs.100 crore under NABARD-RIDF for improvements to the fish landing centres at Kodimunai, Simon colony and Kurumpanai in Kanniyakumari District. These projects are designed mainly with construction of two short groynes of length 160m and 116m at Kodimunai, two short groynes of length 163m and 100m at Simon colony and short groynes of length 100m at Kurumpanai. The works will be commenced shortly.

5.7.39 Construction of Fish Landing Centre and Shore Protection Works at Pillaichavadi, Villupuram District

The Government have accorded administrative sanction for Rs.14.50 crore under NABARD-RIDF for the construction of fish landing centre and shore protection works at Pillaichavadi in Villupuram District. The work will be commenced shortly.

5.7.40 Construction of Fish Landing Centre and Shore Protection Works at Pudhukalpakkam in Chengalpattu District

The Government have accorded administrative sanction for Rs.9.70 crore under NABARD-RIDF for construction of fish landing centre and shore protection works at Pudhukalpakkam in Chengalpattu District. The works will be commenced shortly.

5.7.41 Fishermen Housing Scheme

Under fishermen housing scheme, the Government of Tamil Nadu have sanctioned a

sum of Rs.85 crore to construct 5,000 houses to inland and marine fisherfolk. Out of the sanctioned amount, Rs.61.97 crore was released to Rural Development and Panchayat Raj Department. So far, under this scheme, construction of 2,098 houses have been completed and 1,951 houses are under various stages of construction.

5.8 Development of Inland Fisheries

Inland fisheries sector has great potential to ensure the nutritional security, to serve as an effective economic tool for rural development and to generate direct and indirect employment opportunities, so as to ensure socio-economic prosperity of the State. At present, 75 crore fish seeds are being produced in the State through Government and private fish seed farms. However, the total fish seed requirement for stocking in all potential waterbodies is estimated as 100 crore. To bridge the gap, the Government

is implementing various schemes to increase the fish seed production by establishing new Government farms and improving the capacity of existing farms. Private fish seed farms are also being encouraged by providing subsidy assistance.

The main objectives of Inland Fisheries Sector are:

- Production and supply of quality fish seed to fish farmers.
- Increase the fish seed production capacity to fulfil the fish seed demand.
- Utilization of available inland water resources for increasing the fish production.
- Geo-spatial mapping of inland water resources to assess the fishery potential as well as future planning for growth of the sector.
- Encouraging the fish farmers by providing subsidy to take up fish culture.

- Integration of fish culture with agriculture for doubling the farmers' income.
- Promotion of polyculture through utilization of multitrophic to increase the production per unit area.
- Popularisation of cluster farming to attain self-sustenance in inland fish production.
- Conservation of native fish species through captive breeding and ranching in natural water bodies.
- Creation of employment to the rural sector through expansion of fish culture practices.
- Promoting culture of fast growing short seasonal fish species to match the water availability.
- Popularisation of culture of high valued fish varieties like Murrel and Scampi to earn additional income.

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 framed 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, employment, nutritional security and economic prosperity.

5.8.2 Special Initiatives in Inland Fisheries

Tamil Nadu has 3.85 lakh ha of inland water spread area suitable for fisheries development. These water bodies mainly depend on monsoon rains. Vagaries of monsoon are associated with mismatch in fish breeding season, short water retention period and high feed cost are the challenges in inland fish production.

To overcome the above challenges, the following initiatives have been taken up by the Government:

- Promotion of cluster-based intensive fish seed rearing and fish culture in cages in irrigation tanks and reservoirs.
- Ensuring availability of quality fish seed throughout the year.
- Stocking of fish seed in potential water bodies owned by various departments for effective utilisation.
- Promotion of intensive fish culture technologies and capacity building of fish farmers.
- Promotion of fast-growing fish culture and supplying seeds of candidate fish species viz., Amur Carp, Jayanthi Rohu and Genetically Improved Farmed Tilapia (GIFT).
- Government fish feed mill is being operated by the TNFDC at Achampatti in Thanjavur district. It is supplying quality fish feed to the Government fish farms.

- Pure-line brood stock development facilities have been established in Government fish farms at Mettur (Salem District) and Bhavanisagar (Erode District) for improving the quality of breeders.
- Promotion of advanced intensive fish culture practices like Bio-floc fish culture and Re-circulatory Aquaculture System (RAS) to enhance unit area fish production.

5.8.3 Protection of State's Native Fish Species

The Government is committed to protect the native fish species of the State through ranching of fish seed for replenishment and propagation of native fish species through captive breeding and seed production. The native species of the State are often having high demand as they are considered as local delicacies having immense health benefits.

To address the huge demand for native fish species such as Ayirai (*Lepidocephalichthys*

thermalis), Pearl spot (*Etroplus suratensis*), Calbasu (*Labeo calbasu*) and Selkendai (*Labeo fimbriatus*) and to make availability of protein rich food to the rural mass, the Government has announced to establish native fish species hatcheries at a total cost of Rs. 5 crore in Erode, Salem, Thanjavur and Theni districts. Ranching of native fish species will be carried out in natural water bodies of the State will pave way for restoration of the native stock. Conservation and restoration of native fishery wealth will also uplift the socio-economic status of the inland fisherfolk who depend on these water bodies.

5.8.4 District Fish Farmers Development Agencies (DFFDA)

The District Fish Farmers Development Agencies (DFFDA) have been formed in 37 Districts under the Chairmanship of the respective District Collectors with the following objectives:

- Undertaking fish culture in suitable water bodies.
- Dissemination of fish culture technologies to the farmers.
- Motivation of fish farmers to take up fish culture by providing subsidy.
- Creation of additional employment in rural areas.

5.8.5 Fisheries Management in Reservoirs

Reservoir fishery management is being carried out in 62 reservoirs by this Department.

Enhancement of inland fish production, sustainable fisheries management and to increase the revenue of fisherfolk, who depend on reservoirs are the main objectives.

To realize maximum revenue to the Government, fishery rights of reservoir are leased out by tender-cum-auction. In certain reservoirs, licensed fishing and share fishing are

also practiced to provide livelihood to inland fishers. An amount of Rs.11.34 crore has been realized through leasing of fishery rights of reservoirs during the year 2021-22.

With the concurrence of Water Resources Department, the Department of Fisheries and Fishermen Welfare will take steps for fishery management in other potential reservoirs as well.

5.8.6 Government Fish Seed Production Centres

In Tamil Nadu, 11 Government fish seed production centres are supplying early and late fry to the farmers.

Table: 5
Government Fish Seed Production Centres

Sl. No	Fish seed production centres	District	Species
1	Poondi	Tiruvallur	Common Carp
2	Sathanur (TNFDC)	Tiruvannamalai	Indian Major Carps
3	Krishnagiri	Krishnagiri	Amur Carp and GIF Tilapia
4	Mettur Dam	Salem	Indian Major Carps
5	Bhavanisagar	Erode	Indian Major Carps
6	Thirukkampuliyur	Karur	Indian Major Carps
7	Thattankulam	Thanjavur	Indian Major Carps
8	Karanthai	Thanjavur	Indian Major Carps
9	Nallikkottai	Tiruvarur	Indian Major Carps
10	Manjalar Dam	Theni	GIF Tilapia
11	Manimuthar	Tirunelveli	Indian Major Carps

The Government have given importance for strengthening the infrastructure facilities in Government fish farms to enhance the quality fish seed production of the State. During the year

2021-22, the Government fish farms operated by the Department of Fisheries and Fishermen Welfare have produced 65.68 crore of early fry. Also, the Government is providing subsidy to the farmers for establishing fish hatcheries.

5.8.7 Government Fish Seed Rearing Centres

In Tamil Nadu, 39 Government Fish Seed Rearing Centres are operated by the Department and five fish seed rearing centres are functioning under TNFDC. The Government fish seed rearing centres have produced 9.34 crore quality fish fingerlings and supplied to the fish farmers during the year 2021-22.

Table: 6
Government Fish Seed Rearing Centres

Sl. No	Fish seed rearing centres	District
A. Fish seed rearing farms under Department of Fisheries and Fishermen Welfare		
1	Poondi	Tiruvallur
2	Chembarampakkam	Kancheepuram
3	Authur	Chengalpattu
4	Mordhana	Vellore
5	Vidur	Villupuram
6	Lalpet	Cuddalore
7	Agaram	Cuddalore
8	Asoor	Tiruchirappalli
9	Kulithalai	Karur
10	Thirukkampuliyur	Karur
11	Neithalur	Thanjavur
12	Agarapettai	Thanjavur
13	Karanthai	Thanjavur
14	Thirumangalakottai	Thanjavur
15	Nallikkottai	Tiruvarur
16	Thattamanaipatti	Pudukkottai
17	Kurungalur	Pudukkottai
18	Karuvidaicheri	Pudukkottai
19	Mettur Dam	Salem
20	Anaimaduvu	Salem
21	Bhavanisagar	Erode
22	Hogenakkal	Dharmapuri
23	Chinnar	Dharmapuri

Sl. No	Fish seed rearing centres	District
24	Krishnagiri	Krishnagiri
25	Pambar	Krishnagiri
26	Kelavarapalli	Krishnagiri
27	Sathaiyar	Madurai
28	Vaigai Dam	Theni
29	Manjalar Dam	Theni
30	Anaipatti	Dindigul
31	Pilavakkal	Virudhunagar
32	Managiri	Sivaganga
33	Piravalur	Sivaganga
34	Manimuthar	Tirunelveli
35	Kuniyur	Tirunelveli
36	Gadana	Tenkasi
37	Pechiparai	Kanniyakumari
38	Chittar-I	Kanniyakumari
39	Chittar -II	Kanniyakumari
B. Fish seed rearing farms under TNFDC		
40	Sathanur	Tiruvannamalai
41	Aliyar	Coimbatore
42	Thirumoorthy	Tiruppur
43	Amaravathi	Tiruppur
44	Palar-Porandalar	Dindigul

The Government is undertaking advanced fingerlings rearing in floating cages in 3 places viz., Krishnagiri reservoir in Krishnagiri District,

Thoppaiyar reservoir in Dharmapuri District and Kolavai lake in Chengalpattu District, which enables the supply of quality fish seeds to the farmers. Also, the Government is encouraging farmers to establish fish seed rearing centres by extending subsidy assistance under various schemes.

To improve the fecundity, spawning success in breeders, Pure-line Brood stock multiplication centres have been established at Mettur and Bhavanisagar in Government fish farms. Under this project, Pure-line seeds of Indian Major Carps collected from Gangetic waters are being reared and maintained in Government fish farms for producing quality seeds. The pure-line seeds will be supplied to the private farmers to avoid inbreeding and to develop quality breeders. To supply quality fish seeds to the farmers, fish brood banks are being established by the Department of Fisheries and Fishermen Welfare under the assistance of PMMSY.

5.8.8 Government GIF Tilapia Seed Production and Rearing Centres

The Government have taken steps to promote fast growing and short seasonal fish varieties in Tamil Nadu. The Department has established GIF Tilapia hatcheries at Government Fish Farms in Krishnagiri and Manjalar Dam in Theni District producing 40 lakh GIF Tilapia seeds per annum and supplying to the farmers of Tamil Nadu and neighbouring States.

Considering the growing demand towards GIF Tilapia seeds, a seed rearing centre has been established at Kuniyur in Tirunelveli District with a production capacity of 5 lakh seeds per annum. The Government GIF Tilapia seed production and rearing centres are the boon for the sectoral development of the State to provide substantial returns to the farmers to venture into intensive fish farming.

5.9 Fisheries and Aquaculture Infrastructure Development Fund (FIDF) 2020-21

Strengthening of infrastructure in Government fish farms is being carried out under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for modernization of Government fish seed farms in five places namely, Authur in Chengalpattu, Chembarampakam in Kancheepuram, Sathaiyar in Madurai, Manimuthar in Tirunelveli and Gadana in Tenkasi at a total cost of Rs.18.30 crore.

5.10 National Agricultural Development Programme (NADP) 2020-21

The Government is undertaking infrastructure development works in Government fish farms with the total outlay of Rs. 11.94 crore under NADP for the year 2020-21. The details of projects are given below.

Table: 7

Sl. No	Project	Cost (Rs. in Lakh)
1	Geo-spatial planning of inland fishery resources in collaboration with ISRO	25.00
2	Repair of Government Trout fish farm at Avalanche in The Nilgiris District.	10.00
3	Intensive fish seed rearing facilities in Government fish seed farms.	80.00
4	Construction of nursery ponds in Poondi Government fish farm at Tiruvallur District	109.00
5	Creation of additional fish seed rearing facility in Vaigai fish farm at Theni District	142.00
6	Renovation of breeder ponds at old fish farm, Bhavanisagar	368.00
7	Construction of GIF Tilapia rearing tanks at Kuniyur Government fish farm at Tirunelveli District	379.53
8	Establishment of additional facilities in Manjalar Dam GIF Tilapia hatchery at Theni District.	81.25
	Total	1,194.78

The Government have also sanctioned the following beneficiary-oriented schemes and all the schemes are in progress.

Table:8

Sl. No	Scheme	Units	Cost (Rs. in lakh)
1	Promotion of fish seed rearing by providing subsidy assistance	10 ha	36.00
2	Subsidy assistance to the fish farmers for expansion of fish culture	50 ha	205.00
3	Promotion of cage culture activities in irrigation tanks in Krishnagiri District	52 Nos	315.12
	Total		556.12

5.11 National Agriculture Development Programme (2021-22)

To create infrastructure and necessary facilities in Government fish farms, the Government have sanctioned the following works to the tune of Rs. 5.72 crore under NADP for the year 2021-22. The details of projects are as follows.

Table: 9

Sl. No.	Title of the Project	Cost (Rs. in lakh)
1	Establishment of Government GIF Tilapia seed rearing farm at Barur in Krishnagiri District	450.00
2	Upgradation of Anaimaduvu Government fish farm in Salem District	70.00
3	Renovation of fish ponds at Chittar-II Government fish farm in Kanniyakumari District	32.00
4	Improvements of Government fish farm at Pechiparai Dam in Kanniyakumari District	20.00
	Total	572.00

The Government have also sanctioned the following beneficiary-oriented schemes for the year 2021-22.

Table: 10

Sl. No	Scheme	Units in Nos.	Cost (Rs.in lakh)
1	Promotion of poly culture of Indian Major Carps and Scampi in existing multi-purpose farm ponds	100	25.25
2	Improving the water retention efficiency through HDPE lining for fish culture in farm ponds	100	75.75
3	Provision of input assistance for Murrel fish culture	100	30.30
	Total		131.30

5.12 Pradhan Mantri Matsya Sampada Yojana (PMMSY) 2020-21

The Government have sanctioned a sum of Rs.28.73 crore for inland fisheries development schemes for Tamil Nadu under PMMSY during the

year 2020-21 and all the schemes are in progress. The details of schemes are given below.

Table: 11

Sl. No.	Activities	No. of units	Project cost (Rs. in lakh)
1	Establishment of brood banks	2	1000.00
2	Integrated reservoir fisheries development	5	1108.25
3	Establishment of new freshwater finfish hatcheries	2	25.00
4	Construction of new seed rearing ponds	10 ha	32.20
5	Construction of new grow out fish ponds	100 ha	322.00
6	Input subsidy for fresh water aquaculture	100 ha	184.00
7	Construction of medium Bio-floc ponds	15	98.00
8	Establishment of Re-circulatory aquaculture system	20	69.00
9	Establishment of small Bio-floc culture system	10	34.50
	Total		2872.95

5.13 Pradhan Mantri Matsya Sampada Yojana 2021-22

The Union Government have accorded administrative sanction to the tune of Rs.21.65 crore for inland fisheries development schemes for Tamil Nadu under PMMSY during the year 2021-22. The details of schemes are given below.

Table:12

Sl. No.	Activities	No. of units	Project cost (Rs. in lakh)
1.	Establishment of new freshwater finfish hatcheries	8 nos.	200.00
2.	Construction of new fish seed rearing ponds	40 ha	280.00
3.	Construction of new grow-out fish culture ponds	85 ha	595.00
4.	Inputs for fresh water aquaculture	85 ha	340.00
5.	Establishment of small Bio-floc culture system	100 nos.	750.00
	Total cost		2,165.00

5.14 Tamil Nadu Irrigated Agriculture Modernisation Project (TN-IAMP)

The World Bank funded externally aided project on Tamil Nadu Irrigated Agriculture Modernization Project (TN-IAMP) is being implemented since 2018-19 in 66 sub-basins of Tamil Nadu. Implementation of the schemes are enabling effective fisheries management by increasing fish production on existing water resources and enhance farmed fish production by fast growing fish variety thereby increasing farmers' income. In this project, the World Bank has sanctioned Rs.39.50 crore for the development of inland fisheries activities in 66 sub-basins.

During the year 2018-19 to 2020-21, Rs.25.65 crore was incurred for developing pure-line brood stock and maintenance centre at

Bhavanisagar and Mettur, establishment of GIF Tilapia hatchery at Manjalar Dam, renovation of Government fish seed farms at Lalpet and Agaram in Cuddalore district, fish culture in seasonal irrigational tanks of 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 floating cages, supply of 440 nos. of fishing implements to fishermen and establishment of 13 nos. fish kiosks in 34 sub-basins.

During the year 2021-22, the following fisheries activities are being implemented to the tune of Rs.7.42 crore.

Table:13
TN-IAM PROJECT-II- 2021-22

Sl. No	Activities	Units
1	Direct stocking of fish seeds in long and short seasonal tanks	4,605 ha
2	Aquaculture in farm ponds	343 nos.
3	Supply of Fishing implements	55 nos.
4	Fish seed rearing in cages	39 nos.
5	Earthen fish seed rearing and culture farms	27 nos.
6	Establishment of Modern Fish Kiosks	2 nos.
7	Establishment of high value native Murrel fish seed hatchery and culture farm	1 no.
8	Model Village Activities	13 nos.

For the year 2022-23, it is proposed to implement the following fisheries activities to the tune of Rs.4.60 crore.

Table:14
TN-IAM PROJECT-II- 2022-23

Sl. No	Activities	Number of Units
1	Establishment Fish Seed Rearing Centre at Okkur Village in Nagapattinam District	1
2	Fish Culture in Modular Tanks	40
3	Establishment of Modern Fish Kiosks	6

5.15 Ornamental Fish Culture

Ornamental fish culture is widely undertaken in several districts of the State and Tamil Nadu is the second largest exporter of ornamental fish in the country. To promote ornamental fish culture and to generate employment, a pilot

project on "Development of Ornamental Fisheries in Tamil Nadu" has been taken up in the State with a total project outlay of Rs.469.34 lakh with an eligible subsidy of Rs.225.45 lakh comprising of Central share of Rs.150.87 lakh and State share of Rs.74.58 lakh. Various components under this project includes, construction/ renovation of backyard ornamental fish rearing units, medium-scale ornamental fish rearing units and integrated ornamental fish units, aquatic plant production units, establishment of aquarium fabrication cum retail units, establishment of aquarium tanks for hobby development in schools and colleges and capacity building training to the ornamental fish entrepreneurs.

Further, under the centrally sponsored beneficiary oriented component of Pradhan Mantri Matsya Sampada Yojana (PMMSY) for the year 2020-21, the Government have sanctioned an amount of Rs.165 lakh towards the development

of ornamental fisheries sector in Tamil Nadu and the scheme is under implementation.

5.16 Marketing of Fish and Fishery Products

5.16.1 Construction of Fish Markets

The Government is taking steps to construct new fish markets in various places in order to ensure hygienic handling of fish and to provide quality fish and fishery products to the consumers. The project is being implemented with the financial assistance from the State Government, National Fisheries Development Board (NFDB) and the civic bodies with a total project cost of Rs.17.54 crore.

An amount of Rs.5.89 crore as State Government share and Rs.7.06 crore as NFDB share was released to the concerned civic bodies/ fishermen cooperative societies towards the construction of following 21 fish markets in the State.

Table:15

Sl. No.	Location of the Fish Market	Project cost (Rs. in lakh)
1	Saralur (Nagercoil), Kanniyakumari District	81.88
2	Dharapuram, Tiruppur District	93.00
3	Vedaranyam, Nagapattinam District	48.59
4	Thopputhurai, Nagapattinam District	29.49
5	Nagapattinam Town	42.71
6	Aasath Nagar, Nagapattinam District	37.78
7	Gundu Uppalavadi, Cuddalore District	22.50
8	Tharuvaikulam, Thoothukudi District	13.60
9	Kasivilangi, Trichy District	250.00
10	Ramanathapuram	93.39
11	Paramakudi, Ramanathapuram District	100.00
12	Mettur, Salem District	43.00
13	TVS Corner, Pudukkottai	53.70
14	Attur, Salem District	96.30
15	Ranipet	61.29

Sl. No.	Location of the Fish Market	Project cost (Rs. in lakh)
16	Marthandam, Kanniyakumari District	97.60
17	Karaikudi, Sivaganga District	100.00
18	Rameswaram, Ramanathapuram District	100.00
19	Kadayanallur, Tenkasi District	38.76
20	Karumandichellipalayam, Erode District	100.00
21	Anichampalayam, Villupuram District	250.00
	Total	1,754.00

Construction of 17 fish markets have been completed and construction of 4 fish markets at Rameswaram, Kadayanallur, Anichampalayam and Karumandichellipalayam are in progress.

5.16.2 Fish Consumption Pattern of the State

For the year 2020-21, the total fish production of the State was 7.22 lakh MT. 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.

5.16.3 Export of Fish and Fishery Products

Fish and fishery products is emerging as one of the largest group in agricultural exports from India, with 11.49 lakh MT in terms of quantity and Rs. 43,717.26 crore in value.

The State exported 1.10 lakh MT of marine products and earned a foreign exchange of Rs.5,565.46 crore during 2020-21. Marine products mainly comprise of frozen shrimp, frozen finfish, frozen cuttle fish, frozen squid, dried fish, chilled varieties and live fish. The major export 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 and has an excellent landing and shore infrastructure in nine major fishing harbours, three medium fishing harbours and 52 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.

5.17 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. 50.00 lakh was released to 151 fisher youth under the scheme during the year 2020-21 and 2021-22.

This scheme will be continued for the year 2022-23 also.

5.18 All India Civil Service Special Coaching to Fisher Youth

This Department is providing six 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 Administrative Staff College (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 of Rs 9.56 lakh. The training expenditure is met from the Corporate Social Responsibility (CSR) fund of the Tamil Nadu Fisheries Development Corporation. This scheme will be continued for the year 2022-23 also.

5.19 Kisan Credit Cards (KCC) to Fishers and Fish Farmers

To meet out the working capital requirements of fishers and fish farmers, the Union Government has 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 culture, shrimp culture, seaweed culture, bivalve farming 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 at 2% per annum at the time of disbursal of loan and additional interest subvention of 3% per annum in case of prompt repayment as Prompt Repayment Incentive. So far, 3,341 KCCs have been issued to fishers/ fish farmers for a value of Rs.22.53 crore.

5.20 Extension Activities

The Extension wing of this Department disseminates the welfare schemes of the Government to the fishers, fish farmers and stakeholders. The Fisheries and Fishermen Welfare Department participates in various exhibitions, trade fairs showcase various activities/ schemes being implemented by the

Department. Awareness campaign to the stakeholders on sustainable fishery resource management, sea safety measures, hygienic handling of fish, cleanliness and hygienic practices in fishing harbours and fish landing centres are being organized regularly. To address the grievances of fishermen/ fish farmers, fishermen grievance day and fish farmers meetings are being organized by the Department. Annual days like World Ocean Day (8th June), National Fish Farmers Day (10th July) and World Fisheries day (21st November) are being celebrated throughout the State by conducting various competitions for school/ college students, awareness rallies and medical camps for fishers/ fish farmers. On these occasions, awards under various categories are being given to the best performing fishers/ fish farmers in order to recognize and appreciate their contribution in fisheries sector.

5.21 Tamil Nadu Marine Fisherfolk Census

Decennial census exclusively for fisheries sector are being conducted by the Department of Fisheries and Fishermen Welfare. The last Tamil

Nadu Marine fisherfolk census was under taken during the year 2010 and the Government have 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.

5.22 Study on Socio-Economic Status of Fisherfolk in Tamil Nadu

The Government plays an important role in improving the socio-economic conditions of fisherfolk by implementing various schemes and developing infrastructure facilities all over 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 have 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.

5.23 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 1,431 primary Fishermen/ Fisherwomen Co-operative Societies, 12 district Co-operative Federations and one Apex Co-operative Federation. Fishermen Co-operative Societies are operating 53 full time and 12 part time fair price shops.

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

Table: 16**Members of Fisheries Co-operative Societies**

Society	No. of Societies	Members enrolled
Primary Co-operative Societies		
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
Total	1,418	7,15,384
District Fishermen Co-operative Federation	12	998
Tamil Nadu State Apex Fisheries Co-operative Federation	1	814
Grand total	1,431	7,17,196

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

This Act came into enforcement towards establishing Tamil Nadu Fishermen Welfare Board to ensure comprehensive social security and livelihood of fishermen and fishing labourers. The Act envisages determinant governing functioning of the Welfare Board including relief/assistance for various welfare schemes being

implemented by the Welfare Board. The two services of the Welfare Board namely, enrolment of members and processing of relief/ assistance claims are being delivered through an exclusive web portal *www.tnfwb.tn.gov.in*. developed in co-ordination with National Informatics Centre (NIC). The process of executing the two services through citizen portal is in progress.

(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 registration of fishing vessels, fishing license to various kinds of fishing crafts, renewal and transfer of fishing license for conducting fishing activities in the territorial waters of Tamil Nadu are being issued through 'ReALCraft' website on all India basis.

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.

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

1. Enrolment and disbursement of fishing ban period assistance.
2. Enrolment and disbursement of fishing lean period assistance.
3. Enrolment and disbursement of National Fishermen Savings-cum-Relief Scheme assistance.
4. Enrolment and disbursement of Fisherwomen Savings-cum-Relief Scheme assistance.

7. SUSTAINABLE DEVELOPMENT GOALS (SDG)

In the year 2015, United Nations has framed 17 Sustainable Development Goals (SDG) to combat poverty, inequality and environmental degradation by 2030.

The Department of Fisheries and Fishermen Welfare contributes towards 'Responsible Consumption and Production (Goal-12)' with one indicator and 'Life below Water (Goal-14)' with three indicators. SDG Unit has been formed to work in co-ordination with field level officers and SDG data are periodically updated in the dashboard.

The Department has taken steps to achieve Goal-12 by increasing the fish production of the State through various schemes.

To achieve Goal-14, the Department is taking various measures to enhance marine fish production through deployment of artificial reefs,

ranching of fish seeds, mariculture activities, capacity building to fisherfolk and enforcing Tamil Nadu Marine Fishing Regulation Act for attaining sustainable fishing practices.

8. TAMIL NADU FISHERMEN WELFARE BOARD (TNFWB)

The Government of Tamil Nadu established an exclusive Tamil Nadu Fishermen Welfare Board (TNFWB) in 2007, as a measure to ensure comprehensive social security and to reclaim livelihood of fishermen and labourers engaged in allied activities.

The Tamil Nadu Fishermen Welfare Board being headed by the Hon'ble Minister for Fisheries-Fishermen Welfare and Animal Husbandry as Chairman and the Commissioner/Director of Fisheries and Fishermen Welfare as Member Secretary, having official and non-official members.

In total, 5.33 lakh members have been enrolled in Tamil Nadu Fishermen Welfare Board. Collection of contributions is being accomplished through various receipts viz., Rs.20 per annum as subscription from members of Tamil Nadu

Fishermen Welfare Board, 10 paise and 20 paise/litre towards sale of subsidized diesel respectively by Tamil Nadu Fisheries Development Corporation Limited (TNFDC) and Tamil Nadu State Apex Fisheries Co-operative Federation Limited (TAFCOFED), 7% of inland water bodies fishing lease amount and Rs.2 per kg of fish sale from Mettur Dam. A sum of Rs.35.57 crore has been collected as contribution from 01.04.2008 to 31.03.2022.

During 2021-22, an amount of Rs.7.78 crore has been collected, which is the highest contribution collected so far.

The Welfare schemes being implemented by the TNFWB are detailed in Table 17.

Table: 17**List of Welfare Schemes in TNFWB**

Sl.No.	Details of Relief / Assistance	Relief / Assistance (in Rs.)			
		Day scholar		Hosteller	
		Boys	Girls	Boys	Girls
1	Assistance for Education to son and daughter of the members				
	a) Pass in 10th Std	1,250	1,500	1,250	1,500
	b) Pass in 12th 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 (per year)	1,750	2,250	2,000	2,500
	e) Post Graduate Degree (per year)	2,250	2,750	3,250	3,750
	f) Under Graduate Professional Courses (Fisheries, Agriculture, Veterinary Science, Law, Engineering, Medicine, etc.) (per year)	2,250	2,750	4,250	4,750
	g) Post Graduate Professional Courses (per year)	4,250	4,750	6,250	6,750

	Details of Relief / Assistance	Relief / Assistance (in Rs.)	
		Male	Female
2	Marriage Assistance		
	a) Marriage Assistance to Member	3,000	5,000
	b) Marriage Assistance to son/ daughter of a member	3,000	5,000
3	a) Delivery @ Rs.1,000/- per month for 6 months		6,000
	b) Miscarriage		3,000
	c) Termination of Pregnancy		3,000
4	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
5	Death during fishing or after fishing due to reasons other than accidental death		2,00,000
6	Fishermen missing while fishing		2,00,000
7	Natural Death		15,000
8	Funeral Expenses		2,500

8.1 Prompt and Hassle-free Disbursement of Relief/ Assistance to Beneficiaries

- To facilitate quick processing of relief claims and delivery of relief/ assistance to beneficiaries under various welfare schemes being implemented by the Tamil Nadu Fishermen Welfare Board, an exclusive web portal www.tnfwb.tn.gov.in has been developed in co-ordination with National Informatics Centre (NIC).
- All the District Assistant Directors of Fisheries and Fishermen Welfare have been provided with User ID for accessing the web portal to upload details of beneficiaries directly to the Welfare Board which paves way to easy and expeditious delivery of relief assistance to beneficiaries.
- This procedure apart from economizing time in processing claims, enables quick and easy

transfer of relief/ assistance to beneficiaries through online transfer.

- During 2021-22, TNFWB has made remarkable achievement in settling maximum relief/ assistance to the tune of Rs.5.64 crore to 3,511 claims.
- As a measure to provide an opportunity to fishermen wards of TNFWB members to get full educational assistance to pursue B.F. Sc / B.E. (Fisheries) in Tamil Nadu Fisheries University, full education fee to 5% of seats is being met by Tamil Nadu Fishermen Welfare Board. During 2020-21, a sum of Rs.4.27 lakh has been borne by TNFWB. This assistance will be extended for the current year also.

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

Tamil Nadu State Apex Fisheries Cooperative Federation Ltd., (TAFCOFED) is an apex body, having 834 fisheries cooperative societies as its members, registered under Tamil Nadu Cooperative Societies Act, 1983 and functioning since 19.10.1992. At present, 474 marine fishermen cooperative societies, 152 inland fishermen cooperative societies, 198 fisherwomen cooperative societies and 10 district fishermen cooperative federations have been enrolled as members in TAFCOFED with a total share capital of Rs.91.28 lakh.

The Commissioner of Fisheries and Fishermen Welfare is the functional Registrar of TAFCOFED and is being administered by a Managing Director in the cadre of Additional Director of Fisheries and Fishermen Welfare. The executive board consists of one Chairman and 24

Board of Directors. TAFCOFED has five Project Offices at the following places namely, Chennai, Nagapattinam, Ramanathapuram, Thoothukudi and Nagercoil.

9.1 Supplying subsidized Industrial Kerosene to Motorized Fishing Crafts

Supply of 6,589 KL of subsidized industrial kerosene to the traditional motorized fishing crafts has been done by TAFCOFED in Thoothukudi and Tirunelveli Districts through 13 outlets and it earned revenue of Rs.131.78 lakh during 2021-22.

9.2 Providing Tax-exempted Diesel to Fishing Boats

TAFCOFED has supplied 23,519 KL of tax exempted diesel to mechanized and motorized fishing boats through 16 diesel outlets established in coastal districts and earned a revenue of Rs.470.38 lakh during 2021-22. TAFCOFED has proposed to establish more diesel

outlets in the newly constructed fishing harbours and fish landing centres in 2022-23.

9.3 Distribution of Implements for Dry-Fish Marketing

During 2021-22, TAFCOFED has supplied implements such as coir-mat for hygienic drying of fish, weighing balance, aluminium container (annakoodai), plastic crates and umbrella for dry-fish sales to 100 Joint Liability Groups (JLGs) of fisherwomen in Thoothukudi and Tirunelveli Districts, under National Agricultural Development Programme (NADP) with 60% subsidy.

9.4 Operation of Modern Fish Stalls

In order to supply good quality fish to general public at a reasonable price, TAFCOFED has established modern fish stalls at Vaniyanchavadi in Chengalpattu District, Vaiyavur in Kancheepuram District, Neyveli Township in Cuddalore District, Ariyalur,

Palanganatham in Madurai District, Ramanathapuram, Paramakudi, Vannarapettai in Tirunelveli District & Kanniyakumari and earned a revenue of Rs.9.34 lakh.

9.5 Integrated Cooperative Development Project (ICDP)

The Government have sanctioned Rs.887.43 lakh under ICDP for five years (2017-2022). From 2017-2020, a total amount of Rs.729.34 lakh was sanctioned for implementation of ICDP schemes such as construction of ice plant at Nagapattinam, Thoothukudi, Colachel, Thengapattinam fishing harbours and Tharuvaikulam fish landing centre, revolving fund for procurement of diesel, kerosene, micro-credit to fisheries cooperative societies, etc.

The Government have sanctioned Rs.1 crore during the year 2021-22 for implementation of the schemes.

9.6 Micro Credit to Fisherwomen

Fishers, especially fisherwomen depend on credit from local money lenders and procurement agents at exorbitant interest rates for their day-to-day trade, which often lead to minimum earnings for their livelihood. To help the fisherwomen, TAFCOFED made intervention by providing micro credit at a lower interest rate which enable the fisherwomen free from money lenders and ensure better income. During 2021-22, TAFCOFED has provided Rs.27 lakh as micro credit to 180 fisherwomen of 36 JLGs in Mudasalodai in Cuddalore District and Vanagiri in Mayiladuthurai District at the rate of Rs.15,000 per fisherwomen. TAFCOFED has proposed to extend the financial assistance of Rs.37.50 lakh to 50 fisherwomen JLGs as micro-credit during 2022-23.

9.7 Cooperative Stores in Fishing Harbours/ Fish Landing Centres

TAFCOFED has established cooperative stores at Nagapattinam, Thoothukudi Chinnamuttom, Colachel, Thengapattinam fishing harbours and Tharuvaikulam fish landing centre through which fishing implements and accessories required by the fishermen are sold at reasonable rate. Fishermen can access their daily needs of fishing at the harbour premises itself. During the year 2021-22, a revenue of Rs.7.12 lakh has been realized.

9.8 Financial Performance

TAFCOFED has made a turnover of Rs.186.95 crore and earned a net profit (unaudited) of Rs. 3.81 crore during the year 2021-22.

10. TAMIL NADU FISHERIES DEVELOPMENT CORPORATION LIMITED (TNFDC)

The Tamil Nadu Fisheries Development Corporation Limited (TNFDC) a public sector undertaking, was established to undertake commercial activities in the State fisheries sector. It was registered under Companies Act in 1974, with an authorized share capital of Rs.5 crore and is being administered by the Board of Directors appointed by the Government.

The Government have appointed the Chairman for TNFDC on 28.10.2021. The Commissioner of Fisheries and Fishermen Welfare is the ex-officio Managing Director of the TNFDC. The field activities of the Corporation are managed by the General Manager, Senior Managers, Managers, Deputy Managers, Assistant Managers etc., totalling 95 permanent employees, 11 employees on consolidated pay and 320 outsourced employees. The Corporation is in the process of expanding its business activities.

10.1 Reservoir Fisheries Management

TNFDC is undertaking reservoir fisheries management in 8 reservoirs by stocking advanced fish fingerlings and producing approximately 860 MT of fish annually. In order to generate more revenue, the fishing rights of all the above reservoirs have been leased out to private parties as per the Government orders.

TNFDC is having a total fish seed rearing area of 3.83 ha in five fish farms at Sathanur in Tiruvannamalai, Aliyar in Coimbatore, Amaravathy & Thirumoorthy in Tiruppur and Palar-Porandalar in Dindigul. 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 an ornamental fish production centre at Aliyar. Ornamental Fish Aquaria are also being operated by the Corporation in Aliyar, Thirumoorthy and Sathanur for attracting tourists.

10.2 Fish Marketing

Quality fresh fish and value-added sea food products are being marketed at a reasonable price to public through TNFDC's chain of retail fish stalls at Chennai, Tiruvannamalai, Coimbatore, Tiruppur, Madurai, Dindigul, Tirunelveli and mobile units in Chennai, Tiruvannamalai, Cuddalore, Madurai, Pollachi, Thoothukudi and Kanniyakumari. TNFDC is also taking efforts 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 TNFDC.

10.3 Establishment of Online Fish Marketing Facilities and Branding of TNFDC Products

TNFDC has revamped the online website *www.meengal.com* with additional user-friendly features along with 'Meengal' mobile app. The online fish marketing facilities were well utilized

for supply of fishes to the customers at their doorsteps through e-commerce platform during the Covid-19 pandemic lockdown. So far, 31,240 deliveries have been completed and 47.43 MT of fish have been sold to the value of Rs.2.54 crore.

In order to popularize its activities among the general public, TNFDC has developed a brand logo with caption of "IDHU NAMMA OORU MEENGAL" and also carrying out promotional activities in social media.

10.4 Supply of Tax-exempted Diesel and subsidized Industrial Kerosene to Fishing Boats

TNFDC 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 diesel and subsidized industrial kerosene to the motorized traditional and mechanized fishing crafts. Two new diesel outlets are being established at

Mookaiyur and Kunthukal in Ramanathapuram District. TNFDC is establishing more diesel outlets in newly established fishing harbours and fish landing centres.

10.5 Management of Chetpet Sport-Fishing cum Eco Park

TNFDC is undertaking operation and maintenance of the Chetpet Sport-fishing cum Eco Park, which has the following facilities: aquarium-cum-aquatic virtual reality centre, boating, angling, children park, food court, walking and jogging tracks, children play area, multimedia amphitheatre, food court, guest house, multi-level car parking etc. The above facilities are attracting huge number of public especially children to the Eco Park.

The recreational facilities in the Eco Park are being leased out to private parties and the income is being utilized for the maintenance of Eco Park. Efforts are also undertaken to introduce additional recreational facilities in the Eco Park.

10.6 Production-cum-Training Centre for Value Added Fishery Products, Royapuram

TNFDC has established a production-cum-training centre along with the centralized kitchen at Royapuram for imparting trainings to fisherwomen/ women Self Help Group. During the year 2021-22, 120 members of Tamil Nadu Fishermen Welfare Board and fisher women cooperative societies were given training on value added fishery products in this centre.

10.7 Operation of Fish Feed Mill

TNFDC is operating a fish feed mill at Achampatti in Thanjavur District and 491.30 MT fish feed have been produced and supplied to the fish farms.

10.8 Financial Performance

TNFDC has made a turnover of Rs.702.63 crore and earned a profit of Rs.10.07 crore (unaudited) for the financial year 2021-22. It is

targeted to earn Rs.12 crore profit for the year 2022-23 with an anticipated turnover of Rs.769.49 crore.

10.9 Contribution of Funds by TNFDC

TNFDC has paid a sum of Rs.3.05 crore to the State Government as dividend during 2021-22. TNFDC also paid a sum of Rs.2.07 crore as its contribution to the Tamil Nadu Fishermen Welfare Board for the year 2021-22.

Further, the TNFDC has paid a sum of Rs.23.40 lakh as its Corporate Social Responsibility (CSR) fund for the year 2020-21 to the State Disaster Management Authority. An amount of Rs.25 lakh has also been contributed from CSR fund of 2021-22 for the infrastructure development works in Thoothukudi District.

11. TAMIL NADU DR. J JAYALALITHAA FISHERIES UNIVERSITY

Tamil Nadu Dr. J Jayalalithaa Fisheries University (TNJFU) is a professional Fisheries University funded by the State Government and established on 19.06.2012 at Nagapattinam as per Tamil Nadu Fisheries University Act 2012, with an objective to impart professional fisheries education, conduct research and training for enhancing fish productivity and utilisation in the State.

11.1 Vision of the University

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

11.2 Administrative Setup

The University head Quarters has the Offices of the Vice-Chancellor, Registrar, Director of Research, Director of Extension Education, Controller of Examinations, Directorate of

Sustainable Aquaculture, Finance Officer and Estate Officer. It is the largest fisheries university in the country with 115 teaching faculty and about 250 support staff. The various constituent units of this University are located in 13 districts of Tamil Nadu. The University has 8 colleges, 5 Directorates and 3 Para-professional Institutes.

11.3 Academics

Under-graduate and Post-graduate programmes are offered in Fisheries Science, Fisheries Engineering, Energy and Environment Engineering, Nutrition and Food Technology, Biotechnology and Fisheries Business Enterprises. Doctoral programmes are offered in 13 disciplines of Fisheries Science and Life Science subjects. In addition, vocational degree programmes are also offered on Aquaculture, Fish Processing Technology and Fishing Technology. During 2021-22, 371 students have been admitted in various UG programmes and 73 in PG

programmes. The overall strength of this university is 1435 students.

The Gross Student Enrolment Ratio (GER) of TNJFU is higher compared to other Fisheries Universities and Fisheries Colleges in the country. The students of TNJFU have secured the fifth and tenth ranks in All India Entrance Examination for Admission to postgraduate studies (AIEEA (PG) - 2021) conducted by ICAR, New Delhi. In total, 38 students got their admission through ICAR–AIEEA. The University confers 50 endowment awards for the academic excellence of the students every year.

The Govt. of Tamil Nadu issued orders for 7.5% reservation to Government school students that has been implemented for admission to professional undergraduate courses offered by this university in the year 2021-22. Further, the Government issued orders to increase the enrolment of fishermen ward from 5% to 20%

has been implemented for admission to B.F.Sc. degree programme benefitting an additional 18 students from the fishermen community in the year 2021-22.

11.4 Research and Projects

The faculty members of TNJFU conduct significant research and publish research papers in referred journals. During 2021-22, 88 research papers have been published by this University in journals rated above 6 NAAS score. University has got two patents granted during this year. This University has obtained research and infrastructure funding support from the following agencies to the tune of Rs. 67 crore during 2021-22.

Table:18

Sl. No	Funding agency	Number of projects	Budget (Rs. lakh)
1.	DST-SERB	2	81.52
2.	ICAR-NFDB	1	104.68
3.	NFDB	1	277.60
4.	TANII	1	430.66
5.	NADP	14	2692.31
6.	TN-IAMP	1	250.00
7.	State Fund	2	649.00
8.	EDII	1	250.00
9.	NABARD	3	1865.00
10.	ICAR-NICRA	2	68.25
11.	DST-SERB Start-Up	1	31.11

During 2021-22, University has signed 17 MoUs with National institutes, organizations, private entrepreneurs and research establishments. University has developed and released 4 new technology packages, 4 novel products and 5 new improved equipment and 1 Mobile App.

11.5 Extension activities

There are 7 Aquaculture Quality Testing Labs, 3 Mobile Aqua Labs, 4 Molecular diagnostic Labs, 3 Food products quality testing labs and 1 Feed quality testing laboratory to serve the farmers and fishers at nominal fee and for research students of TNJFU with 30% concession in the tariff.

The Entrepreneurship Development and Innovation Institute (EDII) funded “Marine Products Business Incubation Forum” is functioning at Fisheries College and Research Institute, Thoothukudi. It promotes entrepreneurship development in fisheries enterprises since 2019. The project supports innovators/start-ups by providing space, training and mentoring to produce fish and seaweed-based value-added products. So far, 23 incubatees have registered for utilizing the facilities and one commercial venture has been launched successfully.

A Krishi Vigyan Kendra (KVK) of TNJFU is functioning at Sikkal, Nagapattinam with a mandate to develop and disseminate location specific technological modules at district level through technology assessment and refinement and demonstration. It also acts as a knowledge and resource centre for agriculture and allied activities. KVK imparts training programmes on Integrated fish farming, freshwater fish culture, ornamental fish culture, aquaponics, paddy and fodder cultivation, apiculture, coconut and tree sapling nursery management, mushroom cultivation, panchakavya production, vermicomposting, coir pith compost, poultry, quail, dairy and goat rearing and fish and prawn pickle production by establishing demonstration units for all the programmes offered.

TNJFU organised 48 webinars/seminars, 5 workshops, 1 conference and 341 training programmes online and offline mode for the

benefit of students, scientists, professors, fish farmers and fishers both at national and international levels.

11.6 Novel Initiatives

Digital campus, clean campus and green campus initiatives are undertaken in all the constituent units of this University.

- The students' admission in various academic programme of TNJFU is followed only by online mode. Online examinations were introduced during the pandemic situation and it is planned to continue as it is found effective in saving cost and time.
- Entrepreneurship Development Programme (EDP) facility will be established to serve the stakeholders through Single Window Portal (SWP).
- The TNJFU headquarters building is now fully solar power back up with 80 kVA power

capacity. The College of Fisheries Engineering, Nagapattinam and the Bhavanisagar Centre for Sustainable Aquaculture farm have also been operated with solar power system.

- The newly built University Library building is a green building designed to provide natural lighting inside the hall during the daytime.
- Green campus initiatives comprising responsible waste generation, waste segregation and disposal and planting of saplings are taken up at all our campuses with the involvement of NSS volunteers and staff volunteers.

11.7 Goals and Roadmap

University sets its goals and roadmap in line with the vision to ensure food and nutritional security and to promote livelihood.

University has set 3 goals to achieve in the coming years:

1. Academic excellence
 2. Research distinction
 3. Reaching the unreachable
- The students will be empowered with digital learning, communication capabilities and entrepreneurship skills to encourage youngsters to establish start-ups in fisheries enterprises and become consultants in the field of fisheries and aquaculture.
 - The University is moving towards competency-based education that focuses on the students' demonstration of learning outcomes and attaining proficiency in specific competencies through more experiential learning. Students are being trained for functional success with skill orientation.

- Internal Quality Assurance Cell (IQAC) is being established at the University headquarters and all major institutes to consistently monitor and improve teaching and education through a feedback mechanism involving all the stakeholders.
- Research and development infrastructure will be developed in advanced technologies to carry out cutting-edge research on thrust areas like advanced aquaculture systems, new species identification and domestication, environmental protection and conservation, nutrient enriched fish products, marine cage farming in coastal waters and deep-sea fishing in offshore waters.
- Efforts will be made to undertake international collaboration on thrust areas of research such as Cage farming, Recirculatory Aquaculture System (RAS) and Aquaponics Systems to evolve viable indigenous and eco-friendly technologies.

- In order to reach the unreachable, incubation facilities in fisheries and aquaculture will be developed for imparting practical knowledge and skills to promote entrepreneurs.
- Innovative outreach programme and packaged fish products will be developed to increase the per capita fish consumption of the State.

11.8 Sustainable Development Goals (SDG)

- This University introduces both academic and training programme in fisheries and aquaculture for learners of all age groups to enhance their knowledge and skills and find solutions to the challenges faced in the field of fisheries.
- Research on Integrated Multi-tropic Aquaculture (IMTA), Biofloc aquaculture, Recirculating Aquaculture System and Aquaponics will be undertaken to reduce farm effluents.

- Seafood wastes will be converted into food products like peptides, collagen and other nutraceuticals and feed ingredients on the waste to wealth concept.

12. WAY FORWARD

The future plans of the Government for the comprehensive development of the sector are:

- To ensure welfare of the fisherfolk, the State will continue to implement the social security schemes.
- Safety and security of fishermen at sea will be ensured by providing latest communication equipment/ systems.
- Eco-friendly fishing practices to optimally utilize the untapped deep sea fishery resources are to be encouraged through subsidy schemes.
- Alternative livelihood opportunities like seaweed culture and open sea cage culture will be promoted along with the required skill sets through capacity building programmes.

- Coastal aquaculture activities other than shrimp farming like crab fattening, pond culture of marine finfishes and lobster fattening in open sea cages are to be promoted with the technical assistance of Central Institutes and Tamil Nadu Dr. J Jayalalithaa Fisheries University.
- For effective utilization of coastal fallow lands, land leasing policy to be developed to increase coastal aquaculture production.
- World class Fishing Harbours, shore facilities and cold chain links all along the coast of Tamil Nadu will be established to ensure hygienic handling, quality assurance and better value realization for the fish catch.
- Conservation and sustainable management of Fishery resources through effective implementation of Acts, Rules and Regulations.

- The Government is keen on enhancing the overall inland fish production of the State, for which creation of necessary infrastructure facilities for seed production, promotion of latest technologies, effective utilization of all water resources for fish culture will be done.
- Cluster based farming will be promoted to carry out effective marketing and to fetch better price for inland fishes.
- One Health Approach - This approach is a collaborative effort of multiple disciplines working locally, nationally and globally to attain optimal health for people, animals and the environment. This approach will help in controlling notifiable occupational diseases/ disorders like noise induced hearing loss, contact dermatitis, musculo-skeletal diseases, etc.

- Strengthening One Health Approach comprehensively in coordination with the Directorate of Public Health and Preventive Medicine, and the State Nodal Centre for Occupational Health and Safety of unorganised workers of the Directorate of Medical and Rural Health Services through workshops, seminars, continuing medical education, exchange programmes and other capacity building activities.

13. BUDGET ALLOCATION FOR THE YEAR 2022-23

For the year 2022-23, a sum of Rs.1,158.22 crore has been provided in the budget. Out of this, the projected revenue expenditure is Rs.551.92 crore and the capital expenditure is Rs.606.30 crore.

14. CONCLUSION

The fisheries policy of the Government is to ensure the welfare of the fishermen, to increase the fish production and to increase the seafood exports. The fishing rights of our fishers in the traditional waters are being protected. Enhancement of the fishing lean period assistance from Rs 5,000 to Rs 6,000 and initiatives for creating a 'National Commission for Fishermen' are showing the commitment of the Government towards fishermen welfare.

Special emphasis is given to improve all the sectors of fisheries equally viz., capture & culture

fisheries of marine & inland areas, brackishwater aquaculture, mariculture, ornamental fisheries, fish marketing & export etc., The robust mechanism for conservation through regulatory measures ensures the sustainability in fishery resources. The thoughtful schemes of the Government will certainly attain these visionary goals in fisheries sector.

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



The Hon'ble Chief Minister of Tamil Nadu had discussion with fishermen representatives on 20.01.2022 regarding their issues/requests and announced compensation of Rs.11.32 crore for unsalvageable boats in Sri Lanka and for damaged boats during North East Monsoon 2021



The Hon'ble Chief Minister of Tamil Nadu distributed scheme benefits to fishers on 30.12.2021 in Thanjavur District



The Hon'ble Minister for Fisheries-Fishermen Welfare and Animal Husbandry, handed over a cheque for an amount of Rs.2.05 crore as dividend of Tamil Nadu Fisheries Development Corporation for the year 2020-21 to the Hon'ble Chief Minister of Tamil Nadu on 03.01.2022



The Hon'ble Minister for Fisheries-Fishermen Welfare and Animal Husbandry inaugurated the scheme "Open Sea Cage Culture" of Lobsters at Tharuvaikulam in Thoothukudi District on 26.03.2022



The Hon'ble Minister for Fisheries-Fishermen Welfare and Animal Husbandry inaugurated the scheme "Fish Culture in Floating Cages" at Barur big tank in Krishnagiri District on 09.03.2022 under National Agriculture Development Program (NADP)



Genetically Improved Farmed Tilapia (GIFT) hatchery established at Government Fish Farm, Manjalar Dam in Theni District at a cost of Rs.3.20 crore under Tamil Nadu Irrigated Agriculture Modernization Project (TN-IAMP)



The Hon'ble Minister for Fisheries-Fishermen Welfare and Animal Husbandry presented a Memorandum regarding fishermen issues to the Hon'ble Union Minister for Fisheries, Animal Husbandry and Dairying on 01.04.2022



Modern Fish Kiosk established and handed over to Self Help Group members under Tamil Nadu Irrigated Agriculture Modernization Project (TN-IAMP)



The Hon'ble Chief Minister of Tamil Nadu inaugurated Fisheries University buildings at Muttukadu, Chengalpattu and Jeeyapuram, Trichy Districts on 18.10.2021

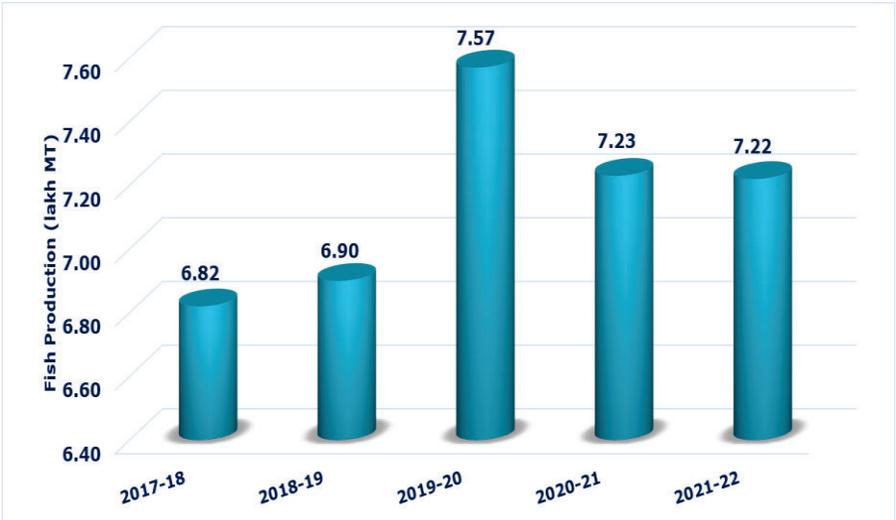


The Hon'ble Minister for Fisheries–Fishermen Welfare and Animal Husbandry released the TNJFU Technology book in TNJFU-DIVA, Muttukadu on 21.01.2022

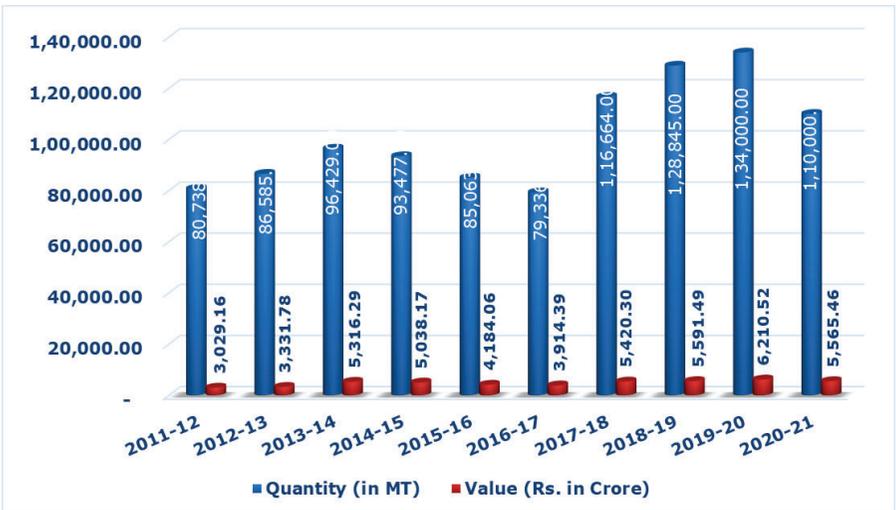


The Hon'ble Minister for Fisheries–Fishermen Welfare and Animal Husbandry inaugurated Recirculating Aquaculture System (RAS) in TNJFU-DIVA, Muttukadu on 21.01.2022 and released seabass fish seeds in tanks

Fish Production of Tamil Nadu
2017-18 to 2021-22 (in lakh MT)



Seafood Products Exports of Tamil Nadu
(2011-12 to 2020-21)



Government Central Press, Chennai-1.