



**ANIMAL HUSBANDRY, DAIRYING AND
FISHERIES DEPARTMENT**

FISHERIES

**POLICY NOTE
2014-2015**

Demand No. 7

**K.A. JAYAPAL
MINISTER FOR FISHERIES**

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Government of Tamil Nadu
2014

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FISHERIES DEPARTMENT

POLICY NOTE

2014–2015

"The Government under my leadership accords top priority to modernize the Fisheries Department and to make Tamil Nadu the 'numero uno' State in Marine Products Exports....."

- ***Speech by Hon'ble Chief Minister on the floor of Assembly dated:13.09.2011***

1. INTRODUCTION

'Fisheries' play a vital role in ensuring the livelihood of a large number of people belonging to the economically weaker sections of the population of the State. It is identified as a powerful tool stimulating growth of a number of subsidiary industries and is a source of healthy and nutritious food. The World Health Organisation(WHO) has recommended per capita fish consumption of 13 kg per annum. The per capita fish consumption of Tamil Nadu is about 9.8 kg per annum. More than a million fishers in the State depend on fisheries and aquaculture for their livelihood. The State of Tamil Nadu with its unique

marine ecosystem having Bay of Bengal on the East, flanked by Indian Ocean and Arabian Sea on the South and West, with 1,076 km long coastline, contributes 12.62% of the country's marine fish production. The fresh / brackishwater ecosystems offer good scope as alternative livelihoods for rural poor. Besides, fisheries sector generates significant foreign exchange earnings and also plays a pivotal role in the State and National economy.

Tamil Nadu is a pioneering State in many innovative developmental and welfare Schemes. Under the leadership of the Hon'ble Chief Minister, this Government is continuously implementing several innovative flagship programmes. To name a few, equipping the fishers for taking up offshore Tuna fishing by incentivising the upgradation of their crafts for diversified fishing, strengthening infrastructural facilities by establishing new fishing harbours, fish landing centres, mid-sea fish processing units, fish processing parks in coastal towns, domestic fish marketing, etc. are some of the programmes. The Government has also initiated steps to provide

effective communication facilities to fishers as a measure of sea safety and security.

To harness the potential of inland fisheries sector, the Government has already embarked on introducing fish varieties suitable for culture in short seasonal water bodies, integrating aquaculture in the existing irrigation systems / rain water harvesting systems, brood stock development to produce quality fish fingerlings, introduction of technologies like cage culture and pen culture for higher fish yield, culture of *L.vannamei* in the coastal fallow lands, leasing of water bodies to private sector for fish culture, provision of subsidy for purchase of equipments like aerators and generators, fishing nets and other input requirements for fish and prawn culture, promoting the ornamental fish culture and trade, creating awareness on 'Fish as health and wealth' by conducting fish festival, promoting fish tourism by establishing state-of-the-art "Oceanarium" and public aquaria etc. To keep pace with the recent technological development in fisheries, the Government established Tamil Nadu Fisheries University, first of its kind in the country and Fisheries

Technology Training Institutes to address the requirement of trained human resources, advancements in food processing, aquaculture etc.

The Government has also given paramount importance for retrieval of “Katchatheevu” back to India and protecting traditional fishing rights of Tamil Nadu fishermen. In order to ensure effective and efficient disbursement of relief assistance to the beneficiaries without loss of time, the Government for the first time disbursed the financial assistance under various fishermen welfare schemes to the individual beneficiary’s account directly through National Electronic Fund Transfer (NEFT).

2. FISHERIES POLICIES AND ITS PERSPECTIVES

The major Fisheries policies of the Government of Tamil Nadu are as follows:

- Protecting the traditional fishing rights of the fishermen.
- Ensuring the safety of the fishermen while fishing at sea.

- Providing social security to the fishers through various relief schemes.
- Improving the standard of living of the fishers by implementing welfare schemes.
- Developing / strengthening the infrastructural facilities for hygienic handling and processing of fish and thereby promoting domestic and overseas market.
- Conserving the fishery resources by enforcing statutory regulations such as mesh regulation, preventing use of destructive gears, stock enhancement and establishing artificial fish habitats.
- Managing the fishery resources by offering diversified fishing options to the fishermen to exploit offshore/ deep sea resources especially Tuna by providing financial assistance for deep sea fishing and establishing Mid-sea Fish Processing Unit.
- Promoting sustainable eco-friendly aquaculture practices / capture and foreign exchange earnings through export.

- Meeting the need for qualified manpower by Institutional strengthening of Fisheries training / Institutes.
- Generating rural employment opportunity.
- Strengthening the Fisheries Co-operatives.
- Affirming effective, efficient and transparent administration.

3. MAJOR ACHIEVEMENTS VIS-À-VIS OBJECTIVES (2013-14)

The major achievements vis-a-vis the objectives of the Department of Fisheries, during 2013-14, are as follows:

1. To protect the fishing rights of Tamil Nadu fishermen and in order to ensure a pragmatic and workable solution to the day-to-day fishing activities of Tamil Nadu fishermen in the traditional fishing waters, as ordered by the Hon'ble Chief Minister, the fishermen level talks between India and Sri Lanka was held at Chennai on 27.01.2014. There was an agreement in this meeting. The subsequent meeting was held at Colombo, Sri Lanka on

12.05.2014. The Colombo talks could not make any headway due to the premeditated stance of the Sri Lankan officials. The Government of Tamil Nadu is committed to continue the bilateral fishermen level talks.

2. Due to the persistent efforts taken by the Hon'ble Chief Minister, 1,151 Tamil Nadu Fishermen who were languishing in Sri Lankan jails (645 fishermen with 119 fishing boats during 2013 and 506 fishermen with 76 fishing boats during 2014 [till 08.07.14]) have been released and repatriated to Tamil Nadu.
3. Due to the untiring and persistent efforts taken by the Hon'ble Chief Minister, 16 fishermen belonging to Nagapattinam, Ramanathapuram and Kanniyakumari Districts who were languishing in Iranian prisons for 9 months were released on 16.09.2013 and brought to Tamil Nadu on 17.09.2013. To restart their livelihood activities, Government has released a total relief amount of Rs.2 lakh to each fisherman. Further, all measures are being taken to improve their livelihood. Similarly, the

18 Tamil Nadu fishermen who were stranded off the Odisha Coast during the 'Phailin' cyclone were given an ex-gratia amount of Rs. 1 lakh each from the Chief Minister's Public Relief Fund by the Hon'ble Chief Minister on 17.10.2013. Further, Government has sanctioned a sum of Rs.5 lakh towards the payment of legal fee for arranging for the release of 5 innocent Rameswaram fishermen who have been arrested on false charges and are languishing in Sri Lankan jail since 29.11.2011. Considering the poor economic condition of their family, the Government extended relief assistance of Rs.2 lakh to each of these fishermen family as a special case, besides the daily relief assistance which is being given to them.

4. During 2013-14, the Government extended special allowance of Rs.4,000/- per marine fishermen family during the lean fishing season to 1,56,221 families and savings-cum-relief amount of Rs.1,800/- to 1,91,613 fishermen and 1,76,465 fisherwomen beneficiaries (till

08.07.2014). The financial assistance was been hosted disbursed through National Electronic Fund Transfer (NEFT) directly to the individual beneficiary's account for the first time so that the beneficiaries received the funds in the shortest possible time, in a transparent manner. The list of beneficiaries has already on the website www.fisheries.tn.gov.in.

5. Construction of Fishing Harbour at Poompuhar in Nagapattinam District which was inaugurated by Hon'ble Chief Minister on 11.09.2013 at an estimated cost of Rs.148 crore has commenced. The works are in progress and will be completed by December 2015.
6. Improvement to strengthen the facilities at Chennai Fishing Harbour at an estimated cost of Rs.75 crore has commenced and will be completed by June 2015.
7. To enhance the inland fish production and to increase unit area fish production, fish culture in cages has been taken up at a cost of Rs.7.08 crore at Poondi reservoir in Thiruvallur

District, Thoppaiyar reservoir in Dharmapuri District and Manimuthar reservoir in Tirunelveli District.

8. To expand fish culture activities in rural areas and also to get additional income from fish culture by the farmers, multipurpose farm ponds that are being constructed for ground water recharge under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), have been integrated with fish culture at a cost of Rs.3.45 crore. 2,705 multipurpose farm ponds covering an area of 276.64 acre have been brought under fish culture and an additional fish production of 500 tonnes valued at Rs.500 lakh is anticipated every year.
9. TANFISH-2013, a fish festival to create awareness on the rich diversity of fishes especially in ornamental fishes and "Fish as Nutritious Food" was organised from 9th to 12th May, 2013 at Island Grounds, Chennai. The fish festival received good response from the public and over 2.5 lakh people visited.

10. In order to supply quality fish to the consumers at affordable prices at their door steps, the Tamil Nadu Fisheries Development Corporation (TNFDC) is operating 21 mobile fish marketing vehicles which have been put into service in major cities like Chennai, Madurai, Tiruchirapalli , Coimbatore and other towns in the State.
11. During 2013-14, the Tamil Nadu Fisheries Development Corporation Limited earned a profit of Rs.7 crore and paid 10 % dividend of Rs.44,55,200/- to Government for its paid up share capital. Apart from that, an amount of Rs.50 lakh has been paid to the Chief Minister's Public Relief Fund and Rs.66.68 lakh has been released from its revenue as part of its contribution towards Corporate Social Responsibility (CSR) and other fishermen welfare programmes. Further, an amount of Rs.1.04 crore has been paid towards its contribution to Tamil Nadu Fishermen Welfare Board (TNFWB).

12. During 2013-14, the Tamil Nadu Fishermen Welfare Board (TNFWB) settled 7,856 claims for a total value of Rs.2.97 crore under its various Schemes from its own funds. This was made possible since all outstanding dues of the previous years were collected, making the Board self sufficient.

4. FISHERY RESOURCES POTENTIAL IN TAMILNADU-AN OVERVIEW

Fishery resources of Tamil Nadu are categorised as Marine, Inland and Brackish water.

4.1 Marine Fisheries

Tamil Nadu has 1.9 lakh sq. km of Exclusive Economic Zone (EEZ) and a continental shelf of 41,412 sq.km. The marine fisher population in Tamil Nadu is 9.24 lakh, living in 608 fishing villages in the 13 coastal districts. The inshore waters of 1,016 km length of the coast on the eastern side and 60 km length of the coast on the western side are over-exploited, whereas the offshore and deep sea resources are yet to be exploited to its optimum levels. The marine fish production of the State

presently is estimated as 4.32 lakh tonnes against the potential of 7 lakh tonnes.

A glimpse of the Marine Fisheries sector is given in Table-1.

Table 1: Marine Fisheries Statistics- 2013-14

Coastal length	1,076 km
Number of Coastal Districts	13
Number of Fishing Villages	608
Marine Fisherfolk Population	9.24 lakh
Fishing Crafts Registered (online): as on 30.06.2014	
1.Mechanised Fishing boats	5,253
2.Traditional Crafts (motorised and non-motorised)	30,436 (25,529 + 4,907)
Infrastructural Facilities	
Major Fishing Harbours	3 (Chennai, Thoothukudi and Chinnamuttom)
Major Fishing Harbours - under construction	4 (Thengapattinam, Poompuhar, Colachel, and Muttom)
Medium Fishing Harbours	4 (Phazhayar, Mallipattinam, Nagapattinam and Cuddalore)
Jetties	8
Developed Fish Landing Centres	25

Other Fish Landing Centres	363
Marine Fish Production (2013-14)	4.32 lakh tonnes*
Marine Products Export (2012-13)	86,585 MT** (Value Rs. 3,331.78 crore)

Source: *Fisheries Statistics of Tamil Nadu

**Marine Product Export Development Authority
(MPEDA)

4.2 Inland Fisheries

Tamil Nadu is endowed with 3.83 lakh ha. of effective water spread area in which 69% of the water spread comprises of long seasonal / short seasonal irrigation water resources. Tamil Nadu being a water starved State, has water in most of these water bodies for a short period of 4-5 months only. The inland fisher population is about 2.26 lakh. Inland fisheries has gained popularity and emerged as an important source of livelihood for fisherfolk / fish farmers in Tamil Nadu. The inland fishery resources of our State comprises of reservoirs, major irrigation and long seasonal tanks, short seasonal tanks and ponds which are amenable to both capture and culture fisheries. About 5,000 ha of ponds and tanks are

being utilised for fresh water aquaculture under the programmes of Fish Farmers Development Agency (FFDA). Under the Intensive inland fish culture and marketing scheme, about 24,600 ha of ponds and tanks are utilised for inland fish culture. The short water retention period in ponds and tanks due to erratic and scanty rain fall necessitates promoting and stocking of fast growing, short seasonal fish species such as Amur Carp, Genetically Improved and Farmed Tilapia (GIFT), Jayanthi Rohu, Pangasius species etc. Table 2 provides an overview of inland fisheries sector.

Table 2: An Overview of Inland Fisheries Sector

Inland Fishery Resources extent	3.83 lakh ha.
Reservoirs (78 Nos*)	62,015 ha.
Large irrigation and short seasonal tanks	2,65,642 ha.
Brackish water spread area	56,000 ha.
Population of Inland Fishers	2.26 lakh
Inland Fish Production (2013-14)	1.91 lakh tonnes.

* 61 reservoirs taken over from PWD for fish culture by Fisheries department out of the total 78 reservoirs

Though the Inland fisheries sector has the potential to contribute 4.50 lakh tonnes of fish production in times of normal rainfall, the present production is only 1.91 lakh tonnes. It is estimated that about 70 crore fingerlings are required to attain the fish production potential of 4.50 lakh tonnes.

4.3 Brackishwater Fisheries

In Tamil Nadu, the total extent of brackish water spread is estimated as 56,000 ha which is used for capture fisheries. Apart from that, about 7,100 ha area is under coastal aquaculture production mainly comprising of shrimp. In Tamil Nadu, shrimp farming has grown considerably and has emerged as a major commercial enterprise owing to the introduction of Specific Pathogen Free (SPF) Shrimp *Litopenaeus vannamei*. During 2013-14, shrimp culture was carried out in 2,753 farms, of which 1,667 farms have been registered under the Coastal Aquaculture Authority (CAA) Act, 2005. Steps have been taken to register the unregistered farms.

The Government with an objective of developing comprehensive aquaculture for achieving optimal fish production and also to introduce innovative technologies and need based aquaculture practices have merged existing FFDA's and BFDA's and formed District Fish Farmers Development Agencies (DFFDA) under the Chairmanship of the respective District Collectors in all the 31 Districts except Chennai during 2014.

5. ADMINISTRATIVE SET UP

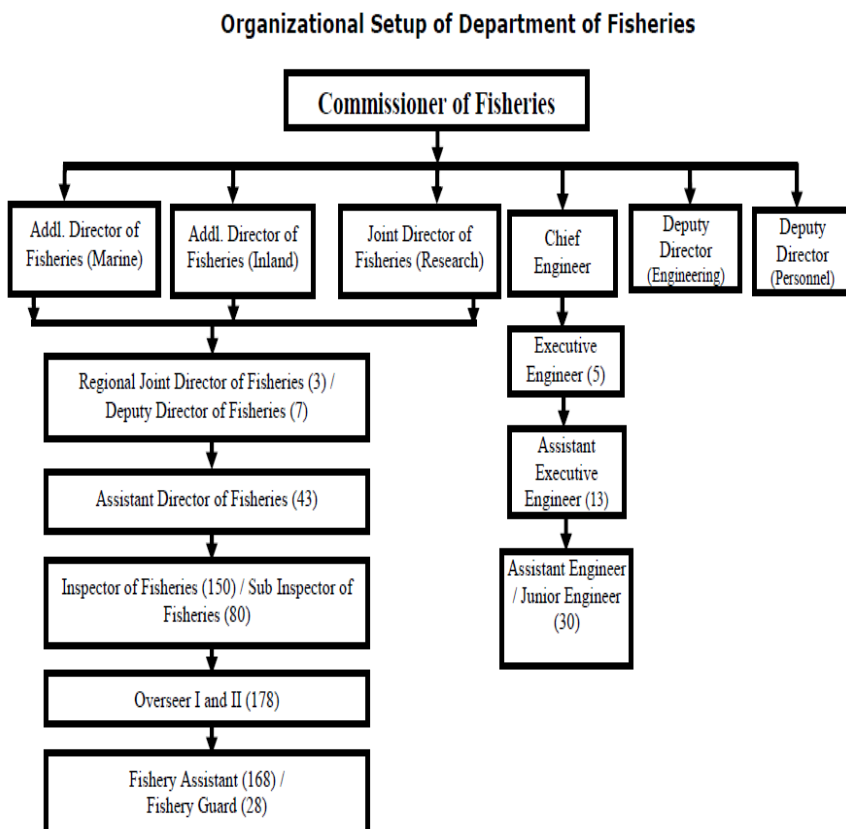
The Commissioner of Fisheries is the Head of the Department, the Managing Director of Tamil Nadu Fisheries Development Corporation Limited (TNFDC Ltd.,) a Public sector undertaking of the Tamil Nadu Government, the Functional Registrar of all Fishermen Cooperative Societies including Tamil Nadu State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

The budgetary allocation for the fisheries sector has increased manifold due to expansion of activities. This has necessitated the re-organisation of the

fisheries department during 2012-13 so as to ensure effective and efficient service delivery system. Accordingly, two posts in the cadre of Joint Director of Fisheries in the head office have been upgraded to the level of Additional Director of Fisheries. Further, the State is divided into 10 regions, out of which 3 regions are headed by Joint Directors of Fisheries (Chennai, Nagapattinam and Thoothukudi) and 7 regions are headed by Deputy Directors of Fisheries (Cuddalore, Tiruchirapalli, Madurai, Ramanathapuram, Nagercoil, Dharmapuri and Bhavanisagar) who monitor and supervise the activities of 49 Assistant Directors of Fisheries and implement various developmental and fishermen welfare schemes. Further, during 2013-14, the Engineering wing headed by the Chief Engineer has also been re-organised with four divisions at Chennai, Nagapattinam, Thoothukudi and Nagercoil to monitor the engineering works that are being carried out by the 14 sub-divisions.

The organizational setup of Fisheries Department is depicted below in Figure 1.

Figure 1:



The total sanctioned staff strength of Fisheries Department is 1,625 after re-organisation of the Department including the engineering wing. The

Department of fisheries during 2013-14, have filled up 161 posts (Table 3) at various levels. Apart from that, 69 vacancies in different cadres will be filled up through the Tamil Nadu Public Service Commission.

Table 3. Details of posts filled up during 2013-14

Sl.No	Name of the Post	Nos.
1	Deputy Director of Fisheries	03
2	Deputy Director of Fisheries (Personnel)	01
3	Financial Adviser / Chief Accounts Officer	01
4	Inspector of Fisheries / Research Assistant	35
5	Superintendent	10
6	Sub-Inspector of Fisheries	06
7	Marine Foreman	01
8	Assistant	14
9	Junior Assistant	30
10	Steno-typist	08
11	Typist	07
12	Office Assistant	36
13	Fishery Overseer-I	04
14	Fishery Overseer-II	04
15	Driver	01
Total		161

5.1 Hon'ble Chief Minister's Special Cell Petitions

During the year 2013, 509 petitions were received from Hon'ble Chief Minister's Special Cell and all the 509 petitions were disposed appropriately.

For the year 2014, 282 petitions were received, of which 263 petitions were disposed (till 30.06.2014). Action for the remaining 19 petitions is in progress. The details of action taken have been sent to the concerned petitioners.

6. PROTECTION OF TRADITIONAL FISHING RIGHTS OF TAMIL NADU FISHERMEN.

6.1. Retrieval of Katchatheevu: Issues and Status

The Government, since May 2011, has taken pro-active steps for the retrieval of "Katchatheevu" Island which was ceded unilaterally by Government of India to Sri Lanka in 1974, to protect the traditional fishing rights of Tamil Nadu fishermen. Tamil Nadu Legislative Assembly on 09.06.2011 unanimously passed a resolution to implead the revenue department in the Writ Petition W.P. (Civil)

No.561/2008, filed before the Supreme Court of India by the Hon'ble Chief Minister of Tamil Nadu, in her individual capacity in 2008 for retrieval of Katchatheevu.

Further, the Government passed another resolution in the Tamil Nadu Legislative Assembly unanimously on 3.5.2013, urging the Government of India to retrieve Katchatheevu, questioning the legal validity of the 1974 and 1976 Indo-Sri Lankan Agreements, in the light of the judgment issued by the Hon'ble Supreme Court of India in "Berubari" case. The above steps assume significance in view of the fact that the fishermen of Palk Bay districts who fish in their traditional waters of Palk Bay region to earn their livelihood are repeatedly arrested or harassed by the Sri Lankan Navy. In order to establish the traditional fishing rights of the fishermen in the background of increasing and repeated incidents with resultant arrest and harassment by the Sri Lankan Navy, the measures taken by the Hon'ble Chief Minister assumes greater significance.

6.2. Efforts taken by Government to prevent Harassment/Release of Tamil Nadu Fishermen

The Government of Tamil Nadu accords top priority for the safety and security of our fishermen who eke out their livelihood by fishing in their traditional fishing waters. Our Hon'ble Chief Minister is determined to ensure that the traditional fishing rights of our fishermen which have been continuously enjoyed by them since time immemorial are well protected. The right of life, livelihood and the right to carry on fishing in the traditional waters of Palk Bay are continuously infringed upon by Sri Lankan Navy's recurrent, unabated apprehension, attack and harassment of our innocent fishermen. With a deep sense of concern on the repeated incidents of attack, harassment and apprehension of Tamil Nadu fishermen by the Sri Lankan Navy and prolonged incarceration of our innocent fishermen in Sri Lankan jails, the Hon'ble Chief Minister has written as many as 47 letters bringing the above incidents to the notice of the Hon'ble Prime Minister of India.

The Hon'ble Chief Minister has constantly demanded the Government of India to decisively use all available diplomatic channels to secure the immediate release of apprehended fishermen of Tamil Nadu and also to prevent the recurrence of such incidents. With the unrelenting and assiduous efforts of the Hon'ble Chief Minister, 1,587 fishermen and their 274 fishing boats since May 2011, viz., 217 fishermen, 40 fishing boats in 2011 (from May 2011) 219 fishermen, 39 fishing boats in 2012, 645 fishermen, 119 fishing boats in 2013 and 506 fishermen, 76 fishing boats in 2014 (till 08.07.2014) have been released from the Sri Lankan Jails and repatriated to Tamil Nadu.

All the fishermen have been released (as on 11.07.2014) from the Sri Lankan jails except the 5 innocent Rameswaram fishermen who have been arrested on false charges by the Sri Lankan Navy and are languishing in Sri Lankan jails since 29.11.2011. The Government sanctioned a sum of Rs 5 lakh towards payment of legal fee to expedite the release of those fishermen, in addition to the daily relief assistance of Rs.10,28,750/- paid till 31.05.2014

and interim relief of Rs.2 lakh each from Chief Minister Public Relief Fund.

In view of the sentiments and desire of the Fishermen Associations of Tamil Nadu to have direct talks with their counterparts in Sri Lanka and in the interest of keeping a channel of communication open between the fishermen communities of both countries, the Hon'ble Chief Minister of Tamil Nadu had proposed to the Government of India that arrangements may be made to have talks between fishermen belonging to Tamil Nadu and their counterparts in Sri Lanka at Chennai.

In the meeting held on 27.01.2014, a delegation of 13 fishermen representatives from our side and 10 fishermen representatives from the Sri Lankan side participated. The Hon'ble Minister for Fisheries, Government of Tamil Nadu and officials from Government of India, Government of Tamil Nadu and the Government of Sri Lanka participated as observers during the talks. There was an agreement in this meeting. The subsequent meeting was held at Colombo in Sri Lanka on 12.05.2014. The Colombo

talks could not make any headway due to the premeditated stance of the Sri Lankan officials. The Government of Tamil Nadu is committed to continue the bilateral fishermen level talks.

7. MARINE FISHERIES

A. WELFARE SCHEMES

The Government always accords priority to improve the standard of living of fishers in State by implementing several welfare schemes. In order to affirm that the benefits of welfare schemes reach the beneficiaries in the shortest span of time and in a transparent manner, for the first time the Government disbursed the financial assistance being extended under various welfare schemes to the individual beneficiary's Savings bank account directly through National Electronic Fund Transfer (NEFT). The details of various welfare Schemes are given below:

7.1 Financial assistance of Rs.2,000/- to Marine Fishermen Families during Fishing ban period

In order to conserve the marine fishery resources, seasonal fishing ban is imposed for 45 days

since 2001 (i.e. from April 15th to May 29th in the East Coast region and June 15th to July 29th in the West Coast region). The fishermen who are engaged as crew / labourers in the fishing boats have no other source of income during the ban period leading to much hardship in maintaining their families and their livelihood. To alleviate the sufferings of the poor fishermen crew / labourers who are actually involved in marine fishing activities, this Government after assuming office during 2011, enhanced the relief assistance given to marine fishermen families from Rs.1,000/- to Rs.2,000/-.

For the year 2014-15, the Government sanctioned Rs.33.49 crore for extending fishing ban relief assistance to 1.67 lakh fishermen families. Rs.28.44 crore has been disbursed to 1,42,204 families as relief assistance (till 14.07.14). In order to ensure that the relief assistance reaches the eligible beneficiaries within a short span of time and also to ensure transparency in the transaction, the department disbursed the amount directly to the beneficiary's account through National Electronic Fund Transfer (NEFT) for the first time.

7.2 National Fishermen Savings-cum-Relief Scheme (NFSRS) for Marine Fishermen

Under this Scheme the grant provided to the beneficiaries is shared equally between the Centre and the State and the relief amount is being disbursed to the marine fishermen every year, during lean fishing months. Under this Scheme, a fisherman contributes Rs.600/- @ Rs.70/- per month as his share for the first 8 months and Rs.40/- for the ninth month. The contribution is matched with the total amount of Rs.1,200/- shared equally by the Central and State Governments (i.e. Rs.600/- each). Thus, a sum of Rs.1,800/- including the fisherman's contribution is disbursed to the beneficiaries during the lean months.

The Government sanctioned an amount of Rs.24.72 crore as its Share (both Central and State) for the year 2013-14. So far, a relief assistance amounting to Rs.22.99 crore has been disbursed to 1,91,613 fishermen of 13 coastal Districts (till 08.07.2014). In order to ensure that the relief assistance reaches the eligible beneficiaries within a short span of time and also to ensure transparency in

the transaction, the department disbursed the amount directly to the beneficiary's account through National Electronic Fund Transfer (NEFT) for the first time.

This Scheme will be continued during 2014-15.

7.3 Savings-cum-Relief Scheme for Marine Fisherwomen

This Scheme is being implemented as a State Sector Plan Scheme similar as per the guidelines of a scheme for marine fishermen. Under this Scheme, a fisherwoman contributes Rs.600/- @ Rs.70/- per month for a period of 8 months and Rs.40/- for the ninth month. The matching grant of Rs.1,200/- is provided by the State Government. Thus, a sum of Rs.1,800/- is disbursed to the beneficiary during the lean fishing months.

The Government sanctioned an amount of Rs.22.075 crore as its share for the year 2013-14. So far, a relief assistance amounting to Rs.21.17 crore has been disbursed to 1,76,465 fisherwomen of 13 coastal Districts (till 08.07.2014). To ensure that the relief assistance reaches the eligible beneficiaries

within a short span of time and also to ensure transparency in the transaction, the department disbursed the amount directly to the beneficiary's account through National Electronic Fund Transfer (NEFT) for the first time.

This Scheme will be continued during 2014-15.

7.4 Special Allowance of Rs.4,000/- to Marine Fishermen Families during Lean Fishing Season

The Government felt that the relief amount of Rs.1,800/- given to fishermen /fisherwomen under Savings-cum-Relief scheme every year during lean fishing months was inadequate to maintain their families. Therefore, subsequent to the announcement made by the Hon'ble Chief Minister of Tamil Nadu in the State Legislative Assembly during August 2011, the Government introduced a new Scheme for disbursement of a Special Allowance of Rs.4,000/- to each of the marine fishermen families in coastal Districts to mitigate their sufferings in the lean fishing months.

The Government accorded sanction for a sum of Rs.71.45 crore for providing special allowance during lean fishing season to 1.785 lakh marine fishermen families during 2013-14. So far, a sum of Rs.62.49 crore has been disbursed to 1,56,221 marine fishermen families of 13 coastal Districts (till 08.07.2014).

To ensure that the relief assistance reaches the eligible beneficiaries within a short span of time and also to ensure transparency in the transaction, the department disbursed the amount directly to the beneficiary's account through National Electronic Fund Transfer (NEFT) for the first time.

This Scheme will be continued during 2014-15.

7.5 Group Accident Insurance Scheme for Fisherfolk

Under this Centrally Sponsored Scheme the State and Central Government share the total Insurance premium of Rs.30/- per beneficiary equally (at Rs.15/- each). Insurance premium is not collected from the fishermen. In the event of death, the legal

heir of fisherman will be given Rs.1,00,000/-and in the event of permanent and partial disability the fisherman will be given Rs.1,00,000/- and Rs.50,000/- respectively.

A sum of Rs.97.66 lakh (as State's share) has been paid to FISHCOPFED (National Federation of Fishermen's Co-operatives Ltd), New Delhi, towards insurance premium covering 6.51 lakh active marine and inland fishers for the period from 10.12.2013 to 9.12.2014. During 2013-14, the insurance company has settled 158 claims for a total value of Rs.1.43 crore. For the year 2014-15, the insurance company has settled 60 claims for a total value of Rs.55.38 lakh upto 30.06.2014.

This Scheme will be continued during 2014-15.

7.6 Motorisation of Traditional Crafts

This is a Centrally Sponsored Scheme in which the expenditure is equally shared between the Centre and the State. The Government is providing subsidy towards the purchase of Out Board Motors (OBM) or

In-Board Engines (IBE) with 8 to 10 HP capacity to be fitted in the traditional crafts of fishermen. The fishermen are provided with 50% subsidy on the unit cost of the engine or Rs.30,000/- whichever is less.

This Scheme will be continued during 2014-15.

7.7 Reimbursement of Central Excise Duty on High Speed Diesel

This Scheme was implemented with 100% funding support from the Central Government, to reimburse the Central Excise Duty by way of providing subsidy towards purchase of high speed diesel (HSD) oil by the mechanised fishing boat operators who own boats whose overall length is less than 20 mts and registered before 10th five year plan so as to reduce the operational cost till the end of 10th Five Year Plan period. However, in the 11th Five Year Plan (2007 - 2012) the Government of India imposed a condition that the owners of the mechanised fishing boats should be below poverty line (BPL) category to avail the benefit under this scheme, which is a non-implementable condition as the mechanised boat

owners will not come under the BPL category. The same condition is in force till date.

The Hon'ble Chief Minister has already brought this issue to the notice of the Hon'ble Prime Minister through a memorandum presented on 13.06.2011. The request has been reiterated once again by the Hon'ble Chief Minister in the memorandum submitted to the new Prime Minister on 03.06.2014 insisting on relaxation of these impracticable and unworkable conditions imposed for reimbursement of Central Excise Duty for all the coastal States and that these should immediately be reviewed in order to enable this Scheme to become operational. A decision on this issue is yet to be conveyed by the Government of India.

7.8 Sales Tax Exemption on Sale of High Speed Diesel to Fishermen

The Government of Tamil Nadu provides 100% sales tax exempted High Speed Diesel for mechanised fishing boats and motorised country crafts registered in the Fisheries Department. The mechanised boats can avail Sales Tax exempted

diesel, subject to a maximum of 15,000 litres per boat/per year (during active fishing months) and motorised country crafts can avail a maximum of 3,600 litres per craft per year.

This Scheme will be continued during 2014-15.

7.9 Subsidised and Sales Tax Exempted Industrial Kerosene to the Traditional Crafts

The Government provided Sales tax exempted industrial kerosene at the subsidised rate of Rs.25/- per litre (200 litres per craft per month) till 2012-13 to the fishermen of Thoothukudi, Tirunelveli and Kanniyakumari Districts who own motorised traditional crafts fitted with kerosene driven motors.

The Hon'ble Chief Minister of Tamil Nadu enhanced the limit of Sales Tax exempted and subsidised industrial kerosene from 200 litres to 250 litres per craft per month during 2013-14, so as to reduce the increasing operational expenses of traditional fishermen. The Government has sanctioned a sum of Rs.53.87 crore, for the benefit of 5,500 kerosene driven traditional crafts.

The Government is planning to provide kerosene swipe card to individual beneficiaries in the ensuing year.

This Scheme will be continued during the year 2014-15.

7.10 Cash Awards to 10th and 12th Class Students of Fishing Community

To encourage the students of fishing community to pursue higher education, the Government of Tamil Nadu is providing cash award and merit certificates to the boys and girls of fishermen community who have secured top ranks in 10th and 12th standard examinations at District and State level as furnished in Table 4.

Table: 4. Details of Cash Awards

Sl. No	Category	Cash Awards (in Rs.)		2012-13 Academic Year			
				12 th Std		10 th Std	
		12 th std	10 th std	Boys	Girls	Boys	Girls
1	State level - 1 st mark	10,000/-	6,000/-	1	1	2	1
2	District level - 1 st mark	6,000/-	2,000/-	22	25	25	25

Sl. No	Category	Cash Awards (in Rs.)		2012-13 Academic Year			
				12 th Std		10 th Std	
		12 th std	10 th std	Boys	Girls	Boys	Girls
3	District level – 2 nd mark	Nil	1,000/-	0	0	24	27
4	District level – 3 rd mark	Nil	600/-	0	0	20	25
Total				23	26	71	78

A sum of Rs.5.67 lakh was disbursed to 198 students of fishermen community.

This Scheme will be continued during the year 2014-15.

7.11 Providing 75% Subsidy Assistance for Purchase of Self Contained Underwater Breathing Apparatus (SCUBA) to Chank divers in Thoothukudi District

Chank fishery is practised by the traditional fishermen of Thoothukudi District by skin diving for centuries as their livelihood. The divers normally use air compressors for continuous breathing for longer durations in the depths of the sea for collecting chanks, sometimes leading to their death due to asphyxiation and Nitrogen necrosis. The air compressor gets power from the inboard engine of the

traditional fishing craft 'Vallam' and the air from compressor is stored in an air tank from which it is released through hoses to the divers, while they are inside the water. The divers will remain at the bottom for about two hours by inhaling air from the hoses and exhale through mouth inside the water. Because of prolonged submergence, the divers consume more Nitrogen when compared to the proportion of Oxygen which may cause "Nitrogen necrosis" a disease sometimes even leading to death. Considering the plight of the poor fishermen, the Hon'ble Chief Minister, has announced to provide 75% subsidy subject to maximum of Rs.75,000/- per unit for the purchase of Self Contained Underwater Breathing Apparatus (SCUBA) during the District Collectors' and Police Officers' Conference held on 19.12.2012.

For the year 2013-14, the Government sanctioned a sum of Rs.20 lakh towards implementing the scheme. The Scheme is under implementation.

7.12 Reconstruction of Thiruchinankuppam Fishermen Tenements in Tiruvallur District

During the District Collectors' and Police Officers' conference held on 13.12.2013, considering the plight of fishermen at Trichinankuppam whose tenements are in dilapidated condition and unfit for dwelling, the Hon'ble Chief Minister ordered reconstruction of the 492 tenements at Thiruchinankuppam in Thiruvallur District at an estimated cost of Rs.24.60 crore through Tamil Nadu Slum Clearance Board. Hence, Thiruchinankuppam fishermen tenements will be reconstructed during 2014-15.

B. RELIEF SCHEMES

7.13 Relief Assistance to the Released Tamil Nadu Fishermen who were languishing in Iranian Prisons

The Government lends its support to the fishermen whenever they are in distress and stand by them in times of hardships. Due to the persistent efforts taken by the Hon'ble Chief Minister, all the 16

fishermen of Nagapattinam, Ramanathapuram and Kanniyakumari Districts who were languishing in Iranian Prisons for 9 months were released on 16.09.2013 and brought back to Tamil Nadu on 17.09.2013. Considering the restart of their livelihood activities, the Government released an additional relief amount of Rs.1 lakh to each fisherman in addition to the relief amount of Rs.1 lakh already given to each of them. Further, the Hon'ble Chief Minister has also ordered to provide motorised boat so as to provide opportunity for starting their livelihood afresh.

7.14 Relief Assistance to Tamil Nadu Fishermen affected by "Phailin" Cyclone

Due to the timely intervention and persistent efforts of the Hon'ble Chief Minister, the 18 fishermen from Kanniyakumari District whose two fishing boats sank due to the landfall of 'Phailin' cyclone which struck Odisha Coast were safely rescued and brought to Tamil Nadu on 16.10.2013 by the Government. Considering the poor economic condition of the fishermen, the Hon'ble Chief Minister of Tamil Nadu gave an ex-gratia amount of Rs.1 lakh each from the

Chief Minister's Public Relief Fund to the 18 fishermen on 17-10-2013.

7.15 Daily Relief to Marine Fishermen Apprehended in other Countries

The Government supports the family of fishermen who are apprehended by the neighbouring countries while fishing by providing daily allowance of Rs.50/- till he returns. The present Government after taking charge enhanced the daily allowance from Rs.50/- to Rs.250/- to the family of the apprehended fisherman till he returns home. The scheme is being implemented through the District Collectors for providing immediate relief. A sum of Rs. 43.04 lakh was disbursed to the 375 families of apprehended fishermen from Nagapattinam, Ramanathapuram and Thoothukudi districts for the year 2013-14. A sum of Rs.5.66 lakh was disbursed to the 60 families of apprehended fishermen from Pudukottai and Thanjavur district for the year 2014-15.

Apart from the above, the Government sanctioned a sum of Rs.5 lakh towards payment of legal fee to expedite the release of 5 innocent

Rameswaram fishermen who were arrested on fabricated charges and have been languishing in Sri Lankan jails since 29.11.2011. To alleviate the financial hardship of the families of the 5 fishermen who struggle to make both ends meet in the absence of the breadwinner of the family, the Government has sanctioned a relief assistance of Rs.2 lakh per family as a special case in addition to the daily relief assistance totalling Rs.10,28,750/- paid to them.

This Scheme will be continued during the year 2014-15.

7.16 Daily Relief to the Families of Missing Fishermen

This Government after assuming charge, enhanced the daily allowance from Rs.50/- (i.e. Rs.1,500/- per month) to Rs.250/-(i.e. Rs.7,500/- per month) to the families of fishermen who went missing while fishing at sea till his return. For the year 2013-14, the Government allocated a sum of Rs.27 lakh and distributed the same to the District Collectors of the coastal Districts.

During 2013-14, a sum of Rs.20.90 lakh was disbursed to 27 families of missing Fishermen in Nagapattinam, Ramanathapuram, Thoothukudi and Kanniyakumari Districts.

This Scheme will be continued during 2014-15.

7.17 Relief to the families of deceased / injured fishermen due to shooting by Sri Lankan Navy and others

The fishermen of coastal Districts, who fish in their traditional waters of the Palk Bay drift due to engine failure and natural vagaries of the sea and so on, are apprehended / harassed and sometimes even shot at by the Sri Lankan Navy.

The Government is providing an ex-gratia payment of Rs.3 lakh from the Chief Minister's Public Relief Fund to help the family of fishermen who die as a result of shooting at sea. In the case of the deceased fisherman being the sole breadwinner of the family, an Ex-gratia amount of Rs.5 lakh is provided. If the fisherman sustain major and minor injuries, an Ex-gratia amount of Rs.50,000/- and Rs.20,000/- is provided respectively.

Due to the continuous efforts taken by the Government, there were no incidents of shooting on Tamil Nadu fishermen by Sri Lankan Navy during the year 2013-14.

The Scheme will be continued during the year 2014-15.

7.18 Corpus Fund for extending financial assistance for pursuing higher education to the Children of Missing / Deceased Fishermen due to Shooting during fishing

The financial relief assistance provided to the families of the missing fishermen / deceased fishermen who died of shooting by Sri Lankan Navy is insufficient for meeting their day-to-day expenses and in most of the cases, the families experience much hardship for providing / continuing their son(s) / daughter(s) education as they are financially not sound. The children of the deceased / missing fishermen therefore, are forced to discontinue their education and seek employment to maintain their families.

Considering the above plight, the Hon'ble Chief Minister of Tamil Nadu ordered the creation of a Corpus fund of Rs.25 lakh in Tamil Nadu Fishermen Welfare Board to meet out the full expenses of the higher studies of the children of the families of missing / deceased fishermen who die due to shooting incidents. Under this Scheme, tuition fee (Government prescribed fee) and the hostel fee is being borne by the Government from the Corpus fund.

The Scheme will be continued during 2014-15.

C. DEVELOPMENT OF INFRASTRUCTURAL FACILITIES

7.19 Construction of Fishing Harbours under Centrally Sponsored Scheme

i) Fishing Harbour at Colachel (sharing cost on 50:50 basis between Centre and State)

The Government accorded administrative approval for the construction of Fishing Harbour at Colachel in Kanniyakumari District at an estimated cost of Rs.27.10 crore. While the work is in progress, the Central Water and Power Research Station (CWPRS), Pune recommended to increase the length,

size and height of breakwater in order to avoid overtopping and damages to the breakwater due to heavy wave actions during high tidal cyclone and coastal flooding which occurs commonly in these areas. Accordingly, the Government has accorded revised administrative approval for construction of the Fishing Harbour at Colachel in Kanniyakumari District at an estimated cost of Rs.87.75 crore during 2013-14. The Government has released a sum of Rs.33.14 crore so far for the project.

The Construction of Western breakwater (Main) and Eastern Breakwater (Leeward) was taken up in accordance with the revised design. The Western breakwater is modified up to 430m out of 540m and the Eastern breakwater is modified up to 120m out of 230m as per the revised design and the balance works are in progress. The deployment of coreloc armour units on both breakwaters is in progress. Quay blocks are being laid for wharf formation besides landside facilities work are in progress. On completion of Quay wall, dredging work will be taken up in the harbour basin. A Sewage Treatment Plant (STP) will be provided at this fishing harbour. The project will be

completed by June 2015 and put to use for the benefit of fishermen.

ii) Fishing Harbour at Thengapattinam (sharing cost on 50:50 basis between Centre and State)

Administrative approval has been accorded by the Government for the construction of a Fishing Harbour at Thengapattinam in the west coast of Kanniyakumari District at an estimated cost of Rs.40 Crore. While the work is in progress, the Central Water and Power Research Station (CWPRS), Pune recommended to increase the size and height of breakwater, in order to avoid overtopping and damages to the breakwater due to the heavy wave actions and during high tide and coastal flooding which occurs commonly in these areas. Accordingly, the Government has accorded revised administrative approval for the construction of Fishing Harbour at Thengapattinam at an estimated cost of Rs.97.40 crore during 2013-14 incorporating the recommendations of CWPRS, Pune. A sum of Rs.60 crore (Central share Rs.25 crore and State share

Rs.35 crore) has been released in five instalments for implementing the Project.

The construction of main breakwater and leeward breakwater was taken up in accordance with the revised design. The construction of main breakwater has been completed up to 580m out of 630m and the balance works are in progress. Modifications to the leeward breakwater as per revised design is in progress. The placing of coreloc armour units in both breakwaters is in progress. Preliminary work for the construction of diaphragm wall and dredging work is in progress. A Sewage Treatment Plant (STP) will be provided at this fishing harbour. The project will be completed by November 2015 and put to use.

iii) Fishing Harbour at Poompuhar (sharing on 75:25 basis between Centre and State)

The Government accorded administrative approval for the construction of Fishing Harbour at Poompuhar in Nagapattinam District at an estimated cost of Rs.78.50 crore and released Rs.6.67 crore towards Central and State share as first instalment.

Pre-project implementation activities has been completed. Based on the recommendation of Central Water and Power Research Station (CWPRS), Pune, the layout and break water cross section were modified. Accordingly, the Government issued revised administrative approval for an estimated cost of Rs.148 crore and the State Government has released Rs.12.135 crore as second instalment from its share. A Sewage Treatment Plant (STP) will be provided at this fishing harbour. The project will be completed by December 2015.

iv) Expansion of Fishing Harbour at Chinnamuttom (sharing on 75:25 basis between Centre and State)

The Government accorded administrative approval for expansion of the Fishing Harbour at Chinnamuttom in Kanniyakumari District at an estimated cost of Rs.73.52 crore. The Government has released Rs. 13.50 crore so far towards Central and State share in two instalments.

The Construction of Western breakwater has been completed to a length of 340m out of 430m;

extension of Eastern breakwater has been completed to a length of 100m. Casting of dolas for both breakwaters is in progress. Casting of concrete blocks for jetty and quay wall is in progress and dredging will be commenced as soon as the jetty and quay wall works are completed. A Sewage Treatment Plant (STP) will be provided at this fishing harbour. The project is expected to be completed by March 2015.

v) Reconstruction of Fishing Harbour at Mookaiyur, Ramanathapuram District

To decongest the mechanized fishing boats in Rameswaram and to support the livelihood of fishermen at Mookaiyur and nearby villages, the Government intends to reconstruct the infrastructure and also to develop a fishing harbour with breakwater, wharf, fish auction hall, protection wall, drying platform, net mending centre etc., at Mookaiyur in Ramanathapuram District. The Detailed Project Report furnished by the Consultant has been approved. Model study and Environment Impact Assessment (EIA) studies are in progress. A Sewage Treatment Plant (STP) will be provided in this fishing harbour. The

Detailed Project Report has been submitted to Government of India for approval.

7.20 Construction of Fishing Harbours under Public – Private Partnership (PPP) mode

i) Fishing Harbour at Muttom in Kanniyakumari District

The Government has accorded permission for the construction of Fishing Harbour at Muttom in Kanniyakumari District under “BOOT” (Build, Own, Operate, and Transfer) System. The total cost of the project is Rs.53.92 crore. The work has been awarded to M/s Jeppiaar Fishing Harbour Muttom Pvt. Ltd. Construction of Breakwater to a length of 480m on Eastern side has been completed. Western Breakwater to a length of 1,890m using tetrapod armour units has been completed. The landside facility works are nearing completion. A Sewage Treatment Plant (STP) has been provided at this fishing harbour. The harbour is expected to be operational by August 2014.

ii) Fishing Harbour at Rajakkamangalamthurai in Kanniyakumari District

The Government has accorded permission for the construction of a Fishing Harbour at Rajakkamangalamthurai in Kanniyakumari District under "Build, Own, Operate and Transfer" ("BOOT") System. The total cost of the Project is estimated as Rs.42.24 crore. The work has been awarded to M/s Rajakkamangalamthurai Fishing Harbour Pvt Ltd. The work has been taken up after getting clearance from Coastal Regulation Zone Management Authority (CRZMA) at National level. During construction, the National Green Tribunal issued interim injunction to stay the activities and the Government has appealed for vacating the stay. The final order is expected shortly.

iii) Fishing Harbour at Manakudi in Kanniyakumari District

Consulting Services for Transaction Advisory Services has been awarded to M/s. Water and Power Consultancy Services (WAPCOS) Ltd, Chennai for preparation of Techno-economic feasibility report,

Expression of Interest (EOI), Request For Qualification (RFQ), Notice Inviting Tender (NIT), Request for Proposal (RFP) / Concessionaire agreements, legal documents and other documents required for construction of Fishing Harbour at Manakudi in Kanniyakumari District under Public-Private Partnership (PPP) mode.

The feasibility report has been approved by Tamil Nadu Infrastructure Development Board (TNIDB). Request For Qualification (RFQ) has been called for to establish the Fishing Harbour at Manakudi under PPP mode.

7.21 The World Bank Assisted Coastal Disaster Risk Reduction Project (CDRRP)

Fisheries sector and the fishing community are the most vulnerable to natural calamities, climate change and degradation of marine environment. In order to promote sustainable marine fisheries and for secured livelihood of the fishing community, the World bank has sanctioned "Coastal Disaster Risk Reduction Project" (CDRRP) at an estimated cost of

Rs.321.30 crore. Under this, the following components are proposed to be completed before June 2018.

7.21.1 Fishing Infrastructure (Project cost Rs. 220.30 crore)

This sub-component is a part of the earlier Emergency Tsunami Reconstruction Project (ETRP) supported ongoing civil works. The sanctioned civil works are as follows:

a) Reconstruction and Modernisation of Two Fishing Harbours in Nagapattinam District:

i) Nagapattinam Fishing Harbour

Revised administrative approval has been accorded for a sum of Rs.45.21 crore for the reconstruction and modernisation of fishing harbour at Nagapattinam. Construction of diaphragm wall and retaining wall on the Northern side of Kaduvaiyar river has been completed. Construction of diaphragm wall and retaining wall along the southern side of Kaduvaiyar river and dredging the basin and lead channel are under progress. Construction of structures

for land side facilities on the southern side of Kaduvaiyar river are also in progress. Tender is in process, for the construction of Sewage Treatment Plant (STP) and will be completed by March 2015.

ii) Pazhayar Fishing Harbour

Revised administrative approval has been accorded to a value of Rs.32.22 crore for the reconstruction and modernisation of fishing harbour at Pazhayar. Construction of groyne, diaphragm wall and approach road has been completed. Construction of structures for land side facilities and dredging the basin, approach channel and lead channel has been completed. Tender is in process for construction of Sewage Treatment Plant (STP). The works will be completed by December 2014.

b) Permanent Opening of Two bar-mouths

In order to ensure safety for the navigation of fishing crafts, the Government has accorded administrative sanction for stabilization of the following two bar-mouths.

i) Uppanar river bar-mouth in Thirumullaivasal village of Nagapattinam District

The Government sanctioned a sum of Rs.8.03 crore for stabilisation of bar-mouth of Uppanar river at Thirumullaivasal, Nagapattinam District. The laying approach road and Groyne work is completed. Dredging work is in progress. The work will be completed by September 2014.

ii) Vellar river Bar-mouth in Cuddalore District

The Government sanctioned Rs.14.45 crore towards stabilisation of the barmouth of Vellar river in Cuddalore District. The works include construction of side channel guide bund, Northern guide bund, dredging etc., All works have been completed and inaugurated by the Hon'ble Chief Minister on 27.06.2014. Navigation has been made smooth for the fishermen.

c) Construction of Two New Fish Landing Centres

With an objective of providing safe berthing facilities to the fishing crafts and to facilitate hygienic handling of fish catch, the Government has accorded administrative approval for the construction of two new fish landing centres at the following places:

i) Nagore in Nagapattinam District

The Government has sanctioned a sum of Rs.12.99 crore for the construction of a fish landing Centre Nagore at Nagapattinam District. Construction of diaphragm wall has been completed. 90% of dredging work and land side facilities has been completed. Tender is in process, for the construction of Sewage Treatment Plant (STP). The project will be completed by December 2014.

ii) Parangipettai-Annankoil Village in Cuddalore District

The Government has sanctioned a sum of Rs.18.91 crore for the construction of a fish handling centre at Parangipettai – Annankoil in Cuddalore

District. Dredging, construction of diaphragm wall and other land side facilities has been completed. The works were inaugurated by the Hon'ble Chief Minister on 27.06.2014.

d) Construction of Tube ice plant at Chinnamuttom

To improve the fish handling facilities at Chinnamuttom Fishing Harbour, tube ice plant with chill room facility and other additional facilities to the existing auction hall has been established at a cost of Rs.50 lakh. The erection of machineries and its commissioning is expected by August 2014.

e) Modernisation of Mallipattinam Fishing Harbour in Thanjavur District (Rs.60 crore)

The Fisheries Department intends to reconstruct and modernise the fishing harbour at Mallipattinam at an estimated cost of Rs. 60 crore. The main components are L-Jetty, diaphragm wall, net mending shed, auction hall and dredging. A detailed Project Report was sent to the World Bank. Obtaining the statutory clearances for the project by the Consultant is under process.

f) Stabilisation of Bar-mouth at Punnakayal in Thoothukudi District (Rs.18 crore)

In order to ensure safety for navigation of fishing crafts, the Fisheries Department intends to stabilize the bar-mouth at Punnakayal in Thoothukudi District at an estimated cost of Rs. 18 crore. The main components are, dredging, construction of groyne berthing structure, approach roads and linking structure. Water and Power Consultancy Services (WAPCOS) has been appointed as a consultant to prepare the DPR and preparation of Environment Impact Assessment / Environment Management Plan (EIA/EMP) report. Obtaining of statutory clearance for the project by consultancy firm is under progress.

g) Conducting studies for New Fishing Harbour Projects (Rs.10 crore)

To undertake studies for establishment of new fishing harbours, World Bank has consented to allot Rs.10 crore under Coastal Disaster Risk Reduction Project (CDRRP).

7.21.2 Fisheries Management for Sustainable Livelihood – II (FIMSUL-II)

Under this, the following sub components are to be implemented.

i) Marine Fisheries Co-Management (Rs.27 crore)

During 2014-15, the marine fisheries Co-management will be implemented on pilot basis in three selected Fisheries Management Units (FMUs) viz. Palk Bay Districts, lobster fishery in Kanniyakumari District and Chennai fishing harbour. Local fisheries Co-management platform and community institutions will be developed and strengthened in the Fisheries Management Units. The fishing community will be involved in marine fisheries management, Monitoring Control and Surveillance and Sea safety, mesh size regulation, preventing banned gear usage etc.

ii) Improved Capacities and Knowledge Management (Rs.5 crore)

Under this component, the professional knowledge and skills of the department staff will be

strengthened by imparting training and capacity building. The training would include implementation of code of conduct for responsible fisheries, fish catch data collection procedures, enforcement of rules and regulations for marine fisheries management, resource enhancement methods, co-management and participatory methodologies etc. The Central Library at the Directorate of Fisheries, Chennai will be upgraded. A dedicated website for the department will be created.

**(iii) Fisheries livelihood support
(Rs.13 crore)**

This component will focus on developing livelihood enhancement and diversification both in fisheries and non-fisheries activities for the benefit of stakeholders. The stakeholders will be trained on specific livelihood programmes of their choice which will include, skill development, market support and financial assistance.

(iv) Management Support (Rs.4 crore)

Under this component, funds would be utilised for acquisition of computer equipment, software, transport cost and staff cost for technical specialist employed.

(v) Providing Wireless Communication facilities to ensure Sea safety (Rs.52 crore)

Under this sub-component, it is proposed to provide seamless communication network to all fishing crafts operating in all coastal Districts of Tamil Nadu at an estimated cost of Rs.52 crore. The World Bank has accepted in principle to fund this project under Coastal Disaster Risk Reduction Project (CDRRP) which is aimed at safety and security of the fishermen. The World Bank also suggested to identify suitable technology / equipment to different sectors of fishing crafts. A strategic workshop on Communication needs of marine fishermen was held at Chennai on 9-10th November, 2013. Officials from Ministry of Telecommunication and Ministry of Agriculture

Government of India, World Bank, State Government, Coast Guard, Meteorological Department, Coastal Research Institutes and Service providers of Cellular phone, VHF, HF and Satellite phones participated. A committee consisting of experts has been constituted to finalise the technology / equipment for traditional crafts, mechanized boat and deep sea vessels. After identifying the technology / equipments the equipments will be provided to fishermen before March 2015.

7.22 FAO – Technical Co-operation Programme (FAO-TCP):

The Food and Agriculture Organization – Technical Co-operation Programme (FAO-TCP) is a bridging programme between Fisheries Management for Sustainable Livelihood (FIMSUL) and Coastal Disaster Risk Reduction Project (CDRRP) – Fisheries Management for Sustainable Livelihood (FIMSUL II). This bridging Project, will help in reaching out to all the stakeholders for disseminating the recommendations of the FIMSUL-I, assist the Department of Fisheries of Tamil Nadu in the

development of a reformed policy, legal and institutional framework for effective implementation of FIMSUL initiatives, including co-management in fisheries management, development of strategies for enhancing and diversifying fishermen's livelihoods, enhancement of knowledge management, assessing the feasibility for setting up wireless communication network for ensuring safety of fishermen at sea and preparation of a detailed project report for the activities proposed under FIMSUL-II for the CDRRP.

Under this TCP the FAO has accorded sanction for appointment of consultants for the following areas:

- 1) Fisheries Policy Co ordination.
- 2) Fisheries Livelihood.
- 3) Fisheries Co Management.
- 4) Fisheries Legal issues
- 5) Fisheries Communication (Sea Safety) and
- 6) Documentation.

The FAO will provide the expert support services for periodic review and monitoring the implementation of the TCP.

7.23 Construction of Fish Landing Centres Under Tsunami Rehabilitation Programme

The Government has sanctioned a total amount of Rs.49.97 crore for the construction of the following ten new fish landing centres (FLC) at various coastal villages.

Table 5: Details of Fish Landing Centres
(Rs. in crore)

Place	District	Amount	Stage
1. Kadalore - Periyakuppam	Kancheepuram	3.14	Work completed and being utilized
2. Ekkiyarkuppam	Villupuram	2.79	
3. R.Pudupattinam	Pudukkottai	3.96	
4. Keelakarai	Ramanathapuram	4.37	
5. Threspuram	Thoothukudi	7.03	
6. Periathazhai	Thoothukudi	2.02	
7. Ennore-Mugathuvara kuppam	Tiruvallur	4.96	Work is in progress and it will be completed by August 2014.
8. Annamalaichery	Tiruvallur	4.40	Work will be continued after obtaining NOC from National Bird Sanctuary Board (Govt. of India)
9. Periyamangodu	Tiruvallur	4.39	

Place	District	Amount	Stage
10. Uvari	Tirunelveli	0.26	The work has been taken up under Koodankulam Neighbourhood Development Programme at a cost of Rs.60 Crore.
Total		37.32	
Additional facilities - New Works			
1. Ennore- Mugathuvara kuppam -	Tiruvallur	3.12	Work is in progress. To be completed by December, 2014.
2. Kadalore - Periyakuppam	Kancheepuram	1.62	Work to be taken up and will be completed by March, 2015.
3. Threspuram Phase II	Thoothukudi	7.91	Work is in progress and will be completed by September, 2014.
Total		12.65	
Grand Total		49.97	

7.24 Administrative Office building for Tamil Nadu Fisheries Development Corporation Ltd., (TNFDC) and Tamil Nadu State Apex Fisheries Co-operative Federation Ltd., (TAFCOFED)

The Government has accorded administrative approval for the Construction of office building for Tamil Nadu Fisheries Development Corporation Ltd., and Tamil Nadu State Apex Fisheries Co-operative Federation Ltd., at an estimated cost of Rs.6 crore at Neelankarai in Chennai. Action is being taken to commence the work after disposal of court cases which are pending in the Hon'ble Madras High Court.

7.25 Renovation and Establishment of Sports Fishing-cum-Eco Park at Chetpet lake, Chennai

The Hon'ble Chief Minister has announced on the floor of Assembly under Rule 110- that the Chetpet lake which is the only lake situated in the heart of the city belonging to Fisheries Department, would be renovated and "Sports Fishing-cum-Eco Park" at a cost of Rs. 42 crore would be established.

This Sports Fishing-cum-Eco-Park will house the following facilities:

- i) Boat jetty
- ii) Angling spots
- iii) Multi level car parking (MLCP)
- iv) Park
- v) Recreation centre
- vi) Sea food court
- vii) Walking and jogging tracks

The Project will be implemented in two packages viz., implementation of civil components by engineering wing of Fisheries Department and implementation of Environmental and Ecological components by Chennai Rivers Restoration Trust (CRRT). The Department of Environment and Forests has released a sum of Rs.22 crore from the Environment Protection and Renewable Energy Development Fund (EPREDF) for implementing the project during the year 2013-14. Tenders have been finalised and work orders have been issued. The project was inaugurated by the Hon'ble Chief Minister

on 27.06.2014. The works will be completed by December 2015.

7.26 Upgradation of Fishing Harbours and Fish Landing Centres

a) Funding by National Fisheries Development Board (NFDB)

The Government accorded administrative approval to upgrade / expand / modernise the following fishing harbours / fish landing centres at an estimated cost of Rs.30.20 crore during 2012-13.

i) Cuddalore Fishing Harbour

Modernisation of Cuddalore fishing harbour was undertaken at a cost of Rs.10.35 crore. The modernisation work consists of diaphragm wall, wharf, surface hardening and drainage. The work has been completed and the harbour is now put into use.

ii) Mudasalodai Fish Landing Centre in Cuddalore District

Administrative approval has been accorded for a value of Rs.7.78 crore for the extension of wharf and construction of net mending shed at Mudasalodai

Fish Landing Centre in Cuddalore District. The work is in progress and will be completed by December 2014.

iii) Thoothukudi Fishing Harbour

Administrative approval was accorded for the modernisation of Thoothukudi fishing harbour at a cost of Rs.12.05 crore. This work consists of modernisation of wharf, parking area, auction hall, drainage works, etc. 70% of works have been completed. The remaining works will be completed by December 2014.

b) Loan Assistance from National Bank for Agriculture and Rural Development (NABARD)

The Government accorded administrative sanction to construct 12 fish seed farms in inland areas and 11 fish landing centres in coastal areas in various places of Tamil Nadu at a total estimated cost of Rs.100 crore during 2012-13.

i) Fish Seed Farms

The construction of 12 Fish Seed Farms in the following places at an estimated cost of

Rs.37.05 crore has commenced and the stage / status of progress is indicated in Table 6.

Table 6 : List of Fish seed farms

(Rs. in crore)

Sl. No.	Places	District	Amount	Stage/ Status
1	Bhavanisagar Pungar Fish Farm	Erode	9.98	Work completed and put into use.
2	Bhavanisagar Old Fish Farm	Erode	4.20	
3	Manimuthar	Tirunelveli	12.70	
4	Vidur	Villupuram	1.41	
5	Thattamanipatti	Pudukkottai	0.61	
6	Thattankulam	Thanjavur	1.01	
7	Agarapettai	Thanjavur	1.42	
8	Assur	Tiruchirappalli	2.00	
9	Lalpet	Cuddalore	1.68	
10	Thirukkampuliyur	Karur	0.70	
11	Neithalur	Thanjavur	0.52	Compound wall, Pump room completed. Road work is in progress.
12	Vanianchavadi	Kancheepuram	0.82	work is in progress.
Total			37.05	

This would provide an additional water spread area of 25,870 sq.m (renovated area 5,117 sq.m) and thereby 60 lakh fish fingerling can be produced annually.

ii) Fish Landing Centres

The construction of Fish Landing Centres in the following 11 places at an estimated cost of Rs.62.95 crore has commenced and the stage / status of progress is indicated in Table 7.

Table 7: List of Fish Landing centres

(Rs. in crore)

Sl. No	Village	District	Amount	Stage/ Status
1	Enayam puthenthurai	Kanniyakumari	2.40	Work completed.
2	Seruthur	Nagapattinam	7.41	Work is in progress.
3	Devipattinam	Ramanathapuram	4.02	Work is in progress.
4	Rochmanagar	Ramanathapuram	3.33	
5	Tharuvaikulam	Thoothukudi	16.26	Work is in progress.
6	Threspuram	Thoothukudi	16.56	

Sl. No	Village	District	Amount	Stage/ Status
7	Simon Colony	Kanniyakumari	2.73	Work is in progress.
8	Kurumbanai	Kanniyakumari	2.04	
9	Muthukuda	Pudukkottai	2.77	
10	Samiyarpettai	Cuddalore	2.50	
11	M.G.R Thittu	Cuddalore	2.93	
Total			62.95	

iii) Improvement and additional works at Chennai Fishing Harbour

The Chennai Fishing Harbour is over-crowded. Administrative approval has been accorded by the Government for improvement of the harbour and taking up additional works at Chennai Fishing harbour at a cost of Rs.75 crore. A sum of Rs.5 crore has been released and the work has commenced. The work will be completed by June 2015.

iv) Permanent stability of Vettar barmouth at Nagore in Nagapattinam District

The Government accorded administrative approval for Rs.11 crore and released a sum of Rs.2 crore as first installment during 2014-15, for the

permanent stability of Vettar barmouth at Nagore. The tender for the work has been finalized and works have commenced. The works will be completed by December 2014.

v) Deepening and Permanent stability of Vellar barmouth at Parangipettai in Cuddalore District:

The Government sanctioned Rs.33.36 crore for deepening the Vellar barmouth and establishing fish landing centre at Parangipettai. All the works were completed and inaugurated by the Hon'ble Chief Minister on 27.06.2014. Now the Government accorded administrative approval for Rs.20.20 crore based on the recommendation of the experts, to improve vellar bar mouth to provide groynes, approach roads and deepening the Vellar barmouth.

vi) Construction of 6 Fish Landing Centres in Ramanathapuram District

During the Conference of District Collectors and Police Officers on 13-12-2013, the Hon'ble Chief Minister of Tamil Nadu has announced that Fish Landing Centres would be constructed at the following

6 locations viz., Dhanushkodi, T.Mariyur, Pamban, Muguntharayachatram, Thangachimadam and Vedhalai in Ramanathapuram District. Accordingly, the Government accorded administrative approval and financial sanction of Rs. 90 lakh for the preparation of Techno-Economic Feasibility Report (TEFR) and conduct of model Studies.

The Indian Institute of Technology (IIT) Madras has been asked to prepare technical feasibility report.

vii) Permanent stability of barmouth with Groynes at Pulicat Lake in Thiruvallur District

During the District Collectors Conference 2013, the Hon'ble Chief Minister announced that a study will be undertaken for the permanent stability of barmouth with Groynes at Pulicat Lake in Tiruvallur District. The Government has accorded administrative approval and financial sanction for Rs.40 lakh for the preparation of Techno - Economic Feasibility Report and conduct of model studies.

IIT Madras has been entrusted the task to prepare the Techno-Economic Feasibility Report (TEFR).

7.27 Corpus fund for conducting model studies

As announced by the Hon'ble Minister for Fisheries on the floor of Assembly during the Demand for grants for Fisheries Department-2012-13, a separate corpus fund of Rs.2 crore has been created for preparation of Techno-Economic Feasibility Report and conduct of Model Studies for construction of New Fishing Harbours / Fish Landing Centres.

Accordingly, tenders were called for, for the appointment of Consultancy Services for the preparation of Techno-Economic Feasibility Report and to conduct model studies for the construction of New Fishing Harbours / Fish landing Centres at Tharangambadi, Arcottuthurai in Nagapattinam District, Rameswaram in Ramanathapuram District and Jegathapattinam in Pudukkottai District. The scrutiny of tender is in progress.

7.28 Establishment of Fish Processing Parks in Tamil Nadu

Consequent to the announcement made by the Hon'ble Minister for Finance during the budget speech 2011-12, Fish Processing Parks are being established in 13 coastal towns of Tamil Nadu. In the first phase, establishment of Fish Processing Park is being taken up at Nagapattinam and Cuddalore Districts. The project involves the development and operation / maintenance of Fish Processing Park at Nagapattinam and Cuddalore Districts through Public-Private Partnership ("PPP") under Design, Build, Finance, Operate and Transfer ("DBFOT") mode, for which the Tamil Nadu Infrastructure Development Board (TNIDB) has given in principle approval for providing Viability Gap Fund (VGF). Presently identification of a private partner is in process.

In the second phase, fish processing parks is being taken up in Thiruvallur and Ramnathapuram districts for which selection of consultant for conducting Transaction Advisory Services and Techno-Economic Feasibility Study is under process.

In the third phase, fish processing parks will be established in Kanniyakumari and Thoothukudi Districts.

7.29.Funding from National Agriculture Development Programme (NADP)

i) Solar Hybrid Guide Lights 10 Nos

The Govt. accorded administrative sanction for supplying, installing and commissioning of wind solar hybrid guide light 10 Nos at an estimated cost of Rs.103.20 lakhs. The installation of all lights have been completed and are functioning. The savings amount will be utilised for installing the same in new places.

ii) Fish Seed Farms

The details of fish seed farm construction work / civil works under taken at a cost of Rs. 8.919 crore under NADP is given in the following Table 8.

Table 8: Details of civil works under taken under NADP

(Rs. in lakh)

Sl. No	Village	District	Amount	Work detail/ Status
1	Parangipettai	Cuddalore	85.00	Development of integrated model for coastal aquaculture. Work completed and the infrastructure is being utilized.
2	Eripurakkurai	Thanjavur	40.00	Renovation of Model Demonstration shrimp farms. Work completed. and the infrastructure is being utilized.
3	Vanianchavadi	Kancheepuram	55.00	Renovation of Research cum Demonstration shrimp farm. Work under progress.
4	Bhavanisagar	Erode	505.65	Repair and Renovation of rearing Ponds at National Fish Seed Farm. Work completed.
5	Chetpet	Chennai	11.10	Additional facilities, internal modifications to existing Lab

				building and construction of Live feed unit. Work completed.
6	Neelankarai	Kancheepuram	33.00	Construction of Modern Fish Retail outlet and Fish Restaurant work is yet to be commenced. To be completed by December 2014.
7	Athur	Chengelpet	162.09	Construction of Fish Seed Rearing Centre work is in progress. To be completed by December 2014.
Total			891.94	

D. RESOURCE/PRODUCTION ENHANCEMENT

7.30 Conservation and Management of Fishery Resources

In recent years, the fishery wealth in the inshore waters is being overexploited. Enforcement of Tamil Nadu Marine Fishing Regulation Act, 1983 is a regulatory measure, as a part of conservation and management of marine resources. The Fisheries Department has been enforcing the Act and taking punitive action on the use of destructive gears such as 'Purse Seine' and 'Pair Trawl' net. Imposing seasonal

fishing ban, stock enhancement, habitat development and diversified fishing methods are some of the conservation/ stock enhancement measures, being adopted by the Department.

7.31 Setting up of Artificial Reefs

Artificial reefs act as habitats to marine aquatic organisms, help in enhancing the fish production through increased breeding activity and survival of young ones and a barrier for bottom trawling operations. The Government has taken steps for development of fish habitats, by setting up of artificial reefs in the inshore waters as a conservation / stock enhancement measure. So far, 18 artificial reefs have been setup along the Tamil Nadu coast. The work has been carried out after obtaining technical advice from the Central Marine Fisheries Research Institute (CMFRI), Kochi. The Government has sanctioned a sum of Rs.2.93 crore towards the installation of additional 19 units in the following places (Table-9). The work is under various stages of progress.

Table: 9 Places of Deployment of Artificial reefs

Sl. No.	Village	District
1	Arangankuppam	Tiruvallur
2	Nettukuppam	
3	Kathivakkam Chinnakuppam	
4	Kanathur	Kancheepuram
5	Chemmencherri	
6	Mahabalipuram	
7	Kadalur Chinnakuppam	
8	Mudaliarkuppam	
9	Nemmelikuppam	Cuddalore
10	Pudukuppam	
11	Pillumedu	Nagapattinam
12	Chinnangudi	
13	Perumalpettai	
14	Nagoor	
15	Seruthur	
16	Vellapallam	Pudukottai
17	Kattumavadi	
18	Muthukuda	Thoothukudi
19	Amalinagar	

7.32 Providing 50 % subsidy for fishermen to procure New Tuna Longliner cum Gill Netter

To diversify the fishing operation from the overexploited inshore fishery resources to the

underexploited offshore fishery resources and thereby mitigating the resource conflict among the users in the inshore waters, the Government introduced a scheme for providing 25% subsidy for conversion of mechanised fishing boats and replacement/upgradation of motorised fishing crafts into Tuna long-liners. Under this scheme, 149 fishing crafts were converted as Tuna long-liners and a total subsidy amount of Rs.3.44 crore was released.

Considering the higher capital cost involved in construction of Tuna long-liner with modern facilities, the Hon'ble Chief Minister enhanced the subsidy assistance from 25% to 50% during the District Collectors and Police Officers conference held in 2012. Subsequently, the Hon'ble Finance Minister announced in the Budget speech of 2013-14, that an amount of Rs.30 crore will be allocated for implementing this scheme with enhanced subsidy assistance, estimating the unit cost as Rs.60 lakh and subject to the maximum subsidy of Rs.30 lakh/ unit for construction of new Tuna long-liner-cum- Gill netter.

To mitigate the conflict in fishing in the Palk Bay area, where the area for fishing operation is very limited, 60% of the total subsidy has been earmarked for Palk Bay Districts. i.e., Ramanathapuram Pudukottai, Thanjavur, Tiruvarur and Nagapattinam. For the year 2013-14, the Government sanctioned an amount of Rs.6.06 crore for this purpose. Detailed Guidelines have been prepared for implementing the scheme. In addition, an amount of Rs.5 crore has been sanctioned by the Government for the year 2014-15.

As per the approved guidelines of the Government, advertisement inviting application was given through the coastal district Collectors' and 271 applications were received. The applications were scrutinized by the respective regional level scrutinizing and monitoring committee and recommended for the consideration of State Level Administrative and Technical Committees. In the memorandum presented by the Hon'ble Chief Minister to the Hon'ble Prime Minister on 03.06.2014, a sum of Rs.975 crore has been sought for three years at the rate of

Rs.325 crore per annum. The scheme will be expanded by availing Central assistance.

7.33 Deep Sea Fishing – Stationing of Mother Ship Concept

An innovative project on establishment of “Mid Sea Fish Processing Units-cum-carrier Mother Vessel” on a pilot basis, under Public Private Partnership (PPP) mode was announced by the Government. This Project will help the Tamil Nadu fishermen to take up deep sea fishing and will also reduce the fishing pressure in inshore waters. The Mother Vessel will act as a source of critical inputs for the ‘baby vessels’ involved in commercial fishing in the deep sea and will have all the facilities for onboard fish processing. This will also act as a ‘Value Added Export Oriented Facility’ and ensure quality standards for export and fetch good price to fishermen for their catch. The Project envisages positioning two vessels, one in the Bay of Bengal and another in the Indian Ocean. M/s. Mahindra Consulting Engineers Limited, Chennai has been appointed as the Consultant to provide Transaction Advisory Services and to carry out the

Feasibility study. On completion of the studies, suitable private operators will be chosen for establishment and operation of 'Mid Sea Fish Processing Units—cum-Carrier Mother Vessel' in Tamil Nadu. Presently the Feasibility study of this project is underway. The proposal has also been added in the memorandum submitted by the Hon'ble Chief Minister to the Hon'ble Prime Minister.

7.34 Setting up of a world class Oceanarium at Mamallapuram

The Hon'ble Minister for Finance in the Budget speech during 2013 -14, announced that a World Class Oceanarium would be established at Mamallapuram in Kanchipuram District, at a cost of Rs.250 crore through the Tamil Nadu Tourism Development Corporation with the technical support from the Department of Fisheries, under Public – Private – Partnership mode. This Oceanarium will be the first of its kind in the country and will be on par with international standards. A suitable site, which is strategically located near the popular tourism spots

and beach to an extent of 15 acres, at Mamallapuram, belonging to Tourism Department has been identified.

This Oceanarium will replicate a miniature model of an ocean, exhibiting live marine aquatic fauna and flora in the natural environment. The live exhibits will include an array of aquatic organisms including sharks, marine ornamental fishes, sea grass, sea weeds, etc., in a simulated habitat. The Oceanarium will be an infotainment park for the National and International tourists as well as a platform for research and awareness.

The Government sanctioned an amount of Rs.2.50 crore during 2013-14, towards consultancy fee and advertisement charges. M/s. Darashaw and Company Pvt Ltd, Mumbai, has been appointed as a consultant to provide Transaction Advisory Services and to conduct Techno-Commercial Feasibility Study. The study report will be submitted during October 2014. Based on feasibility, the financial model, statutory clearances required for implementing the project and identification of private partner will be finalised.

8. INLAND FISHERIES

Tamil Nadu possess 3.83 lakh ha of effective inland water resources comprising of reservoirs, major irrigation tanks, minor irrigation tanks and short seasonal tanks and ponds, rivers, backwaters and derelict water bodies. These water bodies mainly depend on the seasonal rains and the water retention period of most of the water bodies in Tamil Nadu is very short. Poor and erratic rain fall, less retention of water in the water bodies, mismatch of breeding season of fishes with water availability for quality fish seed production, unavailability of low cost and quality feed are the factors responsible for limiting inland fish production. The traditional carp culture including composite fish culture requires water for a culture period of 8 to 12 months. This carp culture does not suit short seasonal water bodies which have water retention for 4 to 5 months only. In order to overcome the limitations, the Fisheries Department is taking suitable measures by introducing fast growing fish species, such as Amur Carp, Genetically Improved and Farmed Tilapia (GIFT), Jayanthi Rohu and Pangasius in short seasonal water bodies. To improve the inland

fish production in Tamil Nadu, the Fisheries Department is taking the following measures:

- Introduction of in-situ cage / Pen rearing of fish seeds
- Adopting intensive cage farming in reservoirs
- Creation of fish seed banks to ensure the availability of fish seeds throughout the year
- Intensive fish culture in irrigation systems
- Promoting fish culture in farm ponds
- Propagation of hatchery technology for the fast growing fish species
- Encouraging farmers by providing subsidy for setting up of fish/prawn hatchery, fish culture in grow out ponds, feed mill and hygienic marketing infrastructure

8.1 Reservoir Fisheries

Reservoirs are potential resource for inland fisheries development, where the fishery comprises of both wild and stocked varieties. There are 61 reservoirs under the control of the Fisheries

Department comprising of major, medium and small reservoirs. Among these, 53 reservoirs are directly managed by the Fisheries Department and 8 reservoirs are managed by the Tamil Nadu Fisheries Development Corporation Limited (TNFDC). The fishery resources are being exploited by licensing system, share fishing and leasing. The reservoirs are stocked with fingerlings produced from the departmental fish seed farms. The National Fisheries Development Board (NFDB), Hyderabad, is extending financial assistance of Rs.1/- per seed for stocking advanced fingerlings of 80 -100 mm size in reservoirs. The departmental fish seed farms are utilised for rearing fish seeds up to advanced fingerlings stage for subsequent stocking in the reservoirs.

Tamil Nadu State has availed this financial assistance for 4 years. This assistance could not be availed continuously due to certain restrictive clauses in the guidelines of NFDB. The Government has taken initiatives to get further assistance from NFDB by sending suitable proposals for amending the guidelines of NFDB.

In order to optimise the fish production, the Tamil Nadu Government has taken a policy decision to lease out fishery rights in 53 reservoirs that are directly managed by the Fisheries Department. Leasing out of these reservoirs are being carried out in a phased manner. The lessee has to employ fishermen on share basis for harvesting of fish so as to safeguard the interests of the inland fishermen and increase the inland fish production. So far, 17 reservoirs (7 reservoirs during 2012-13 and 10 reservoirs during 2013-14) were leased out and a total lease rent of Rs.6.61 crore was realised. The remaining 36 reservoirs will be leased out during 2014-15.

8.2 Fish seed Production / Fish seed Rearing Centres

There are 4 Fish Seed Production Centres functioning under the control of Fisheries Department and one under the control of Tamil Nadu Fisheries Development Corporation (TNFDC). The Department fish seed production centres are functioning at Bhavanisagar in Erode district, Mettur in Salem

district, Manimuthar in Tirunelveli district and Karanthai in Thanjavur District. The fish seed production centre under the TNFDC is functioning at Sathanur in Tiruvannamalai District. A record production of 28.08 crore early fry was produced during 2013-14, which surpassed all previous records including the production of 18.87 crore early fry during 2012-13

There are 28 fish seed rearing centres functioning under the control of the Fisheries Department and 5 fish seed rearing centres under the control of Tamil Nadu Fisheries Development Corporation (TNFDC). The fish seed farm area under the control of the Department is 48.88 ha., out of which 33.37 ha of rearing space has been created. During 2013-14, 182.39 lakh late fry and 196 lakh fingerlings have been produced from the fish seed rearing centres under the control of Fisheries Department.

During the year 2013-14, an additional rearing space of 4.20 ha in the Government fish seed farms

has been repaired from which an additional 225 lakh of fingerlings is expected to be produced every year.

The inland fish production potential of Tamil Nadu is estimated as 4.5 lakh tonnes, whereas the present inland fish production is only 1.91 lakh tonnes. To achieve the inland fish production to its full potential, fish fingerlings requirement is estimated as 70 crore, whereas the present fingerling production of the State is only 24 crore fingerlings. In order to address the gap between demand and production of fish seed, the Department of Fisheries is taking proactive measures to repair and renovate the seed rearing facilities by sourcing funds from several schemes such as National Agriculture Development Programme (NADP), National Fisheries Development Board (NFDB), Western Ghats Development Programme (WGDP), National Bank for Agriculture and Rural Development (NABARD-RIDF) and the World Bank funded Tamil Nadu Irrigated Agriculture Modernisation and Water bodies Restoration and Management (TN-IAMWARM) Schemes.

The fish seed production of the State can be enhanced either horizontally by area expansion or vertically by adopting improved fish seed rearing techniques. This is expected to narrow the fish seed demand and production gap which will in turn augment inland fish production of the State.

8.3 District Fish Farmers Development Agencies (DFFDA)

In Tamil Nadu, hitherto 12 Fish Farmers Development Agencies (FFDA) were functioning, in order to popularise fish culture activities and generate employment opportunities in rural areas. The main activities are providing technical guidance and encouraging farmers to take up fish culture by extending subsidy assistance, besides imparting technical training and extension support to fish farmers. These Fish Farmers Development Agencies were functioning under the Chairmanship of the respective District Collectors.

To promote sustainable, eco-friendly coastal aquaculture practices, 5 Brackishwater Fish Farmers Development Agencies (BFDA) were functioning at

Thiruvallur, Cuddalore, Nagapattinam, Ramanathapuram and Thoothukudi Districts under the Chairmanship of the respective District Collectors covering all the coastal Districts except Chennai District.

The Government, in order to utilise the available water resources in the Districts effectively for fish production and to disseminate the latest technical knowhow to the farmers for higher fish production etc., merged the existing FFDA and BFDA and established a common District Fish Farmers Development Agency (DFFDA) in all districts of Tamil Nadu except Chennai District under the chairmanship of the respective District Collectors during 2013-14. The newly formed DFFDAs will develop a comprehensive roadmap for utilising the water resources of the districts effectively for sustainable fish production.

8.4 Development of Cold Water Fisheries

The upland /Cold waters that are available in The Nilgris District and in some parts of Western Ghats offer potential for developing sport fishery. A

trout hatchery at Avalanche in The Nilgris is functioning since 1906. The trout fingerlings produced from the hatchery are being stocked every year in the trout streams as a measure of stock enhancement. The National Fisheries Development Board has sanctioned Rs.30 lakh for the renovation of the Trout Hatchery at Avalanche and the work is progressing. It is expected to be completed by December 2014.

8.5 Western Ghats Development Programme

The water bodies of Western Ghats in Tamil Nadu have rich fish diversity. The Western Ghats which extends from Erode District to Kanniyakumari District is a habitat for several unique endemic fish species.

During the year 2012-13, under the programme for Conservation and Development of Watershed in Western Ghats, a sum of Rs.70.13 lakh was sanctioned for improvement of infrastructural facilities in Pechiparai and Chittar Government fish seed farms in Kanniyakumari District and the work has been completed. For the year 2013-14, an amount of

Rs.2 lakh was provided as input subsidy for fish seed stocking in farm ponds in Virudhunagar District.

9. RESEARCH

The Fisheries Department has two laboratories functioning at Chennai and Thoothukudi, catering to the needs of fish/shrimp farmers to test the soil and water quality apart from assisting in disease diagnosis of fish/shrimp. These laboratories in collaboration with Tamil Nadu Fisheries University (TNFU), Nagapattinam, and Central Institutes viz., Central Institute of Freshwater Aquaculture (CIFA) Bhubaneshwar, Central Institute of Brackishwater Aquaculture (CIBA) Chennai, Central Marine Fisheries Research Institute (CMFRI) Kochi are disseminating new technologies and propagating research findings to the stakeholders.

The Hydrology laboratory at Chennai has been strengthened at a cost of Rs.1.25 crore with financial support from NADP Scheme during 2012-13. This laboratory will be provided with advanced equipment for fish health diagnosis and culture of live feed to cater to the needs of aqua farmers and ornamental

fish culturists in the State, besides having a well equipped mobile laboratory for analysing soil, water quality and disease diagnosis at field level.

10. EXTENSION AND TRAINING

For effective transfer of technology and propagation of welfare schemes of the Government to the farmers and other stakeholders, extension and training plays a vital role. Five propaganda vehicles of the Fisheries Department are being exclusively utilised to conduct awareness campaigns in various fishing villages and inland fishing areas. Fisheries Department is also carrying out extension activities by participating in exhibitions, trade fair and Uzhavar peruvizhas disseminating technical knowledge to fishermen/farmers.

The Department is conducting various need-based training programmes for all stake holders, with the funding support of National Agriculture Development Programme (NADP), National Fisheries Development Board (NFDB) and Government of India.

10.1 Fisheries Statistics

The Fisheries Department has resolved to draw up a long term plan for the development of the fisheries sector and reflect the contribution of this sector to the State economy. For this purpose, precise estimates of fish catch and its disposal play key role since the produce is traded through different channels. During 2013-14, the Fisheries Department with funding assistance from Government of India through the Department of Economics and Statistics, has commenced the survey on "Fish Production in Tamil Nadu and its Utility" at a total project cost of Rs 37.79 lakh, which is in progress. In addition, under the World Bank funded Coastal Disaster Risk Reduction Project (CDRRP-FIMSUL-II), it is proposed to establish three "Fisheries Information and Service Centres (FISC)" in coastal districts. The FISCs' will also be utilised for collection of statistical data related to fish catch, craft and gear, seasonal availability of fishes, catch disposal, etc.

10.2 Maritime Education for Fisher Youth

To upgrade the skills and to create employment opportunities to the fisher youth, the Government extends financial assistance to the children of active fishermen families at the rate of Rs.50,000/- per person for undergoing 6 specific courses on Maritime Education notified by the Government. An amount of Rs.50 lakh was sanctioned for the year 2013-14, out of which Rs.42.50 lakh was disbursed as financial assistance to 117 fisher youth till 30.06.2014.

The Scheme will be continued in 2014-15.

10.3 Fisheries Institute of Technology and Training

Fisheries Institute of Technology and Training (FITT) has been functioning with the aim of imparting technology oriented training to fishers. The FITT has imparted training to 3,607 fishers on seaweed culture, crab fattening, fish handling and preservation, engine maintenance for mechanic and fishermen, tuna fishing, marine ornamental fish culture, trap fishing etc., using its own funds and other funds received from National Fisheries Development Board (NFDB), National Agriculture Development Programme (NADP) etc.,

Cage culture of Amur carp, Pangasius and Genetically Improved and Farmed Tilapia(GIFT) in Poondi reservoir at an estimated cost of Rs.3.34 crore under NADP-NMPS is under implementation. Further, the Government has also accorded sanction for Rs.85.81 lakh towards imparting training in tuna fishing with a small craft. Under this scheme, construction of 40 ft Over All Length (OAL) Fibre Glass Reinforced Plastic (FRP) Boat is in progress. This is expected to be completed by July 2014. These boats will be utilized for patrolling, search and rescue operation purposes in the Gulf of Mannar area as per G.O Ms.No.94 Animal Husbandry, Dairying and Fisheries Department, Dated:10.04.2013.

10.4 Tamil Nadu Fish Festival 2013

The Hon'ble Minister for Fisheries during the Budget session 2012-13, announced that a National Level Fish Festival will be conducted at Chennai. This festival was organised for the first time in Chennai from 9th to 12th May 2013 at a total outlay of Rs.1 crore with the funding support of Rs.25 lakh by National Fisheries Development Board (NFDB) and

Rs.20 lakh each by the Tamil Nadu Fisheries Development Corporation and Tamil Nadu State Apex Fisheries Co-operative Federation.

The fish festival became an excellent platform for exchange of ideas, knowledge and improvement of trade between aquarium exhibitors and sea food based industries, service providers of fisheries sector, progressive farmers, consumers and Government departments. An exclusive ornamental fish gallery displaying more than 300 varieties of live exotic and indigenous marine and inland ornamental fishes was the star attraction.

About 110 stalls of Government organisations, Research and Developmental institutions, manufacturers and distributors associated with fisheries sector like ornamental fish producers, fish feed companies, suppliers of fish processing instruments, suppliers of fresh, processed, ready-to make/eat fishery products; fish traders; sport fishing and eco-tourism, self help groups, local and international ornamental fish breeders, hobbyists,

accessory traders, and exporters exhibited their produce/products in this grand event.

Competitions among the hobbyists for best fish species, best grown ornamental fish, attractive variety, most colourful fish, highest priced fish, etc., were conducted and prizes were awarded.

A number of Government organisations and women SHGs set up stalls in the sea food court, which served fish delicacies to the general public at a nominal price. Fish food recipe competition was conducted among housewives/hoteliere and renowned chefs demonstrated various sea food recipes to the public.

The exhibits of all the stalls were informative for the public to know and learn about fish in general. Approximately 2.5 lakh visitors witnessed TANFISH 2013.

11. SPECIAL PROJECTS

11.1 Issuance of Biometric Identity Cards to Marine Fishermen

The Government of India introduced a Central Sector Scheme for “Issuance of Biometric Identity Cards to marine fishermen” to ensure coastal security in the aftermath of 26/11 Mumbai terrorist attack. A sum of Rs.1.16 crore was allocated for this purpose to Tamil Nadu. It is proposed to issue Biometric ID cards to about 2.06 lakh active marine fishermen. The work was entrusted with “M/s.BEL Ltd” Bengaluru. Under phase-I programme 1,14,963 cards have been distributed to the marine fishermen. Data entry and capturing of biometric features for 24,500 fishermen have been completed under Phase-II. Biometric ID cards will be issued before September 2014 to the remaining fishermen.

The Government has taken action to issue biometric identity cards to fisherwomen also as in the case of marine fishermen.

11.2 Online Registration of Fishing Vessels

For ensuring coastal security, the Government of India have introduced a Central Sector Scheme on "Online registration of fishing vessels" and sanctioned a sum of Rs.133.359 lakh to Tamil Nadu towards infrastructure such as computers and software through NIC, New Delhi.

A total of 5,253 mechanised fishing boats and 25,529 motorised and 4,907 non- motorised traditional crafts have been registered till 30.06.2014.

11.3 Tamil Nadu Irrigated Agriculture Modernisation and Water Bodies Restoration and Management (TN IAMWARM) project

The World Bank funded TN-IAMWARM Project envisions improving the service delivery and enhancing unit productivity of water in selected sub basins. In order to improve the fish productivity of the water bodies, quality fish seeds are produced and stocked. Several activities such as aquaculture in farm ponds, fish seed rearing in cages, construction of earthen fish seed rearing farms, improving the

existing Government fish seed rearing farm, cage farming, promoting ornamental fish culture and setting up of fish kiosk for fish marketing are being undertaken. Under this project, so far, 15 masonry fish seed banks, 97 earthen fish seed banks, 4 fish seed breeding and production centers, 49 ornamental fish culture units and 29 modern fish kiosks have been established. So far 825 farm ponds have been stocked with fish fingerlings and brought under fish culture.

During January 2014, the World Bank team inspected the progress of TN-IAMWARM activities and appreciated the efforts taken by the Fisheries Department in implementing the Schemes as per the recommendations of the World Bank. Further, it has lauded the efforts taken by the Fisheries Department in introducing the short seasonal fish varieties for fish culture in ponds and cages which has set a new trend in inland fish culture.

During the year 2013-14, Rs.3.55 crore was sanctioned for implementation of additional fisheries activities. Implementation of these activities is progressing in 40 sub-basins covering 14 Districts. It

is focused to propagate low cost cage farming in 100 irrigation tanks besides stocking of fish fingerlings in 6,300 ha. of inland water bodies.

Under this project during 2014-15, it has been decided to depute technical officers to premier aquaculture research institutes in China and Vietnam as part of overseas training programme in order to get exposure on the latest technological advances in the field of aquaculture.

11.4 National Agriculture Development Programme (NADP-2013-14)

Under NADP, the following programmes are being implemented at a total cost of Rs.4.43 crore.

11.4.1. Introduction of Fish Culture in Multi-purpose Farm Ponds (Rs.345.30 lakh)

During the year 2012, due to the failure of monsoon and consequent scarcity of water in the Cauvery river, the farmers of the delta region faced acute drought and unable to save their crops. Under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), construction of multipurpose farm ponds was taken up for rain water

harvesting which led to substantial ground water recharge. These farm ponds are being used for growing fish which would provide additional income to the drought affected farmers. Multipurpose farm ponds with adequate water suitable for fish culture were selected. Under this Scheme, 50% input subsidy was provided to small and marginal farmers for fish seed, feed, and harvesting material for undertaking fish culture. An amount of Rs.311.84 lakh was allotted for the introduction of fish culture in multi-purpose farm ponds of drought affected Cauvery Delta Districts and Rs.33.46 lakh for non-delta districts except Chennai and The Nilgris. During the year 2013-14, fish culture has been carried out in 2,705 multipurpose farm ponds with a total area of 276.64 acres were brought under fish culture activity and an amount of Rs.345.30 lakh was released for implementing the scheme. Through this measure, production of 500 tonnes of fish valued at Rs.500 lakh is anticipated.

11.4.2. Subsidy Assistance to Augment Fish Production in Fish Farms with Improved Culture Technology (Rs.28.40 lakh)

Fish farm productivity can be increased by improving water quality with proper aeration and bio-security measures. A total amount of Rs.28.40 lakh was allotted as subsidy to support the fish seed producers and fish farmers of Thanjavur, Tiruvarur and Nagapattinam Districts by providing 25% subsidy for aerators, generators and bio-security measures.

11.4.3. Upgradation of Fishing Efficiency of inland Fishermen of Tamil Nadu (Rs.37.88 lakh)

Fishing efficiency can be improved by supplying upgraded fishing nets to inland fishers. Sanction has been accorded for a total amount of Rs.37.88 lakh to provide fishing gears to the fishermen co-operative society members who are fishing in water bodies such as reservoirs, ponds and tanks. Under this scheme, 500 Inland fishers were supplied with gill nets at 50% subsidy assistance and the scheme was completed.

11.4.4. Introduction of Improved Fishing Craft for Exploitation of Reservoir Fisheries (Rs.1.37 lakh)

A total amount of Rs.1.37 lakh was sanctioned under this Scheme to provide Fiber-glass Reinforced Plastic (FRP) catamaran under 50% subsidy assistance to active fishermen engaged in fishing at Poondi reservoir, Tiruvallur District. Under this scheme, 27 fishermen have purchased new FRP catamaran which provides them with easy mobility, maintenance and safety replacing the wooden logs. Scheme has been completed.

11.4.5. Propagation of specific pathogen free *Litopenaeus vannamei* in coastal aquaculture (Rs.22.79 lakh)

Litopenaeus vannamei farming is practiced in the coastal areas of Cauvery delta region as an alternate to other shrimp species. Improved aeration and bio-security measures are essential for sustainable aquaculture production. Proper aeration by aerators and application of probiotics increases shrimp production.

Under this scheme, subsidy assistance is provided to the registered shrimp farmers for procuring aerators, generators etc., at 25% subsidy subject to maximum Rs.1.88 lakh for 2 hectare farm. For implementing this Scheme, Rs.22.79 lakh has been sanctioned. The Scheme will be completed by October 2014.

11.4.6. Provision of Hygienic Fish Handling Equipment and Accessories for Modern Fish Stalls of Tamil Nadu Fisheries Development Corporation (TNFDC) Ltd (Rs.7.70 lakh)

To ensure supply of quality fish to the consumers, hygienic fish handling equipment and accessories have been provided to the modern fish stalls of TNFDC at Santhome, Nandanam and Teynampet in Chennai at an estimated cost of Rs.7.70 lakh. This equipment ensures better shelf life and reduces wastage while dressing from 5% to 2%.

The progress of the works are furnished in Table 10.

**Table 10: National Agriculture Development Programme
(NADP) Schemes-2013-14**

Sl. No	Name of the Project	Amount (Rs. in lakh)		Stage of work
		Sanc-tioned	Utilised	
1	Introduction of Fish Culture in Multi-purpose farm ponds of drought affected Cauvery Delta Region	311.84	311.84	Fish seeds have been stocked in 2536 farm ponds in the Delta districts of Thanjavur, Tiruvarur, Nagapattinam, Tiruchirapalli and Cuddalore. Harvest of fish will be completed by October 2014.
2	Propagation of Fish Culture in Multi-purpose farm ponds in the non delta regions of Tamil Nadu	33.46	33.46	Fish seeds have been stocked in 169 farm ponds and fish culture is in progress. Harvest of fish will be completed by October 2014.
3	Augmenting Fish Production in fish farms with Improved culture technology	28.40	5.47	Fish farms and Fish seed farms are provided with subsidy for procuring aerators, generators and bird fencing to improve their fish production. So far 15 beneficiaries out of 25 have been identified and back ended subsidy has been released to 5 beneficiaries after creation of assets. The balance will be completed by October 2014.

Sl. No	Name of the Project	Amount (Rs. in lakh)		Stage of work
		Sanctioned	Utilised	
4	Upgradation of fishing efficiency of Inland Fishermen of Tamil Nadu	37.88	37.88	The fishing nets used by the Inland fishermen have a shelf life of 2 to 3 years only. Hence, the Government has provided 50% back ended subsidy for procuring new fishing nets. Under this Scheme 500 fishermen have been benefited.
5	Introduction of improved fishing craft for exploitation of reservoir fisheries	1.37	1.37	The fishing crafts used by Inland fishermen have a shelf life of 5 years. Hence the Government has provided 50% back ended subsidy for purchase of new fishing crafts. Under this Scheme 27 fishermen have benefited by availing this subsidy.
6	Propagation of <i>Litopenaeus vannamei</i> in Coastal Aquaculture	22.79	3.76	The coastal shrimp farms especially the Specific Pathogen Free (SPF) <i>Litopenaeus vannamei</i> farms are provided with subsidy for procuring aerators, generators and bird fencing for their farms to improve shrimp production. So far 7 out of a total of 12 beneficiaries have been identified and back ended subsidy has been released to 2 beneficiaries. The remaining subsidy will be released to the beneficiaries before October 2014.

Sl. No	Name of the Project	Amount (Rs. in lakh)		Stage of work
		Sanc-tioned	Utilised	
7	Provision of hygienic fish handling equipment and accessories in modern fish stalls of TNFDC Ltd	7.70	7.70	In order to maintain the standards of quality in fish marketing, hygienic handling equipment and accessories have been procured for the fish stalls run by Tamil Nadu Fisheries Devolvement Corporation.
TOTAL		443.44	401.48	

11.5 National Mission for Protein Supplement (NMPS)

Integrated aquaculture unit for the fish farmers (Rs.5.05 crore)

In order to strengthen aquaculture sector through an integrated approach by establishing fish seed production unit, fish culture unit, feed mill, marketing infrastructure etc., under one cluster by forming a society, an integrated aquaculture unit each in Thanjavur and Tiruvarur districts, is being established at an estimated cost of Rs.5.05 crore.

**Table11: National Mission for Protein Supplement
(2013-14)**

Sl. No.	Name of the Project	Amount Sanctioned (Rs.in lakh)	Remarks
1	Integrated Aquaculture unit at Thanjavur	252.50	So far, 33 beneficiaries have been selected for fish seed rearing and fish culture covering an area of 50 ha. For hatchery and fish marketing, sites have been identified and the works are likely to be completed by December 2014
2	Integrated Aquaculture unit at Tiruvarur	252.50	So far 36 beneficiaries have been selected for fish seed rearing and fish culture. Land for hatchery construction has been identified and detailed estimate preparation is in progress. The work is expected to be completed by December 2014.
TOTAL		505.00	

11.6. Schemes under National Fisheries Development Board – Inland Fisheries

The National Fisheries Development Board (NFDB), Hyderabad has extended financial assistance for a sum of Rs.38.06 lakh for the year 2013-14 for undertaking the following inland fisheries activities in Tamil Nadu:-

Table 12: Projects funded by National Fisheries Development Board (2013-14)

Sl. No.	Name of the Project	Amount (Rs. in lakh)		Remarks
		Sanctioned	Released by NFDB	
1	Assistance for Setting up of Integrated Marine Ornamental Fish Hatchery Unit at Vedalai, in Ramanathapuram	7.50	7.50	The marine ornamental unit has been established at Vedalai village, Ramanathapuram District and the subsidy released to the beneficiary.
2	Seaweed cultivation by Self Help Group in Ramanathapuram District	46.13	23.06	Subsidy has been released and Seaweed cultivation is in progress.

Sl. No.	Name of the Project	Amount (Rs. in lakh)		Remarks
		San ctioned	Released by NFDB	
3	Assistance for Training of farmers practising fish culture in Multipurpose farm ponds	7.00	7.00	Training to farmers is under progress and would be completed by December 2014
	Total	60.63	37.56	

12. PART- II SCHEMES-2014-15

The following schemes will be implemented at a total cost of Rs.85.90 lakh under Part II schemes during the year 2014-15:-

- Construction of new office buildings to the Assistant Director of Fisheries, Royapuram, Chennai, Sub-Inspector of Fisheries in Kodaikanal, Dindugal, District and Fishing Harbour Project Sub-division at Thoothukudi at estimated cost of Rs.67 lakh.
- Providing Computers with accessories and Telephone facilities to the offices of the newly created and existing offices at a estimated cost of Rs.12.40 lakh.

- Replacement of One Vehicle (Jeep) at the Office of the Assistant Director of Fisheries, Erode in lieu of a condemned vehicle at a estimated cost of Rs.6.50 lakh.

13. 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 6.44 lakh fishermen / fisherwomen have been enrolled as members of 1,401 primary Fishermen / Fisherwomen Co-operative Societies / District Co-operative Federation / Apex Co-operative Federation. Fishermen Co-operative Societies are operating 54 fair price shops.

During 2013-14, the State Co-operative Election Commission notified elections to co-operatives. Accordingly, elections were conducted in three phases for all the Fisheries Cooperative Societies. Election was conducted for 1,385 Fisheries Cooperative Societies out of 1,389 Societies from 30 districts in the first phase and 9,657 Board of

Directors were elected. In the Second phase, election was conducted for 11 District Fisheries Co-operative Federations and 142 Board of Directors were elected. In the third phase, election was conducted for Tamil Nadu State Apex Fisheries Co-operative Federation (TAFCOFED) and 17 Board of Directors were elected. In total, 9,816 democratically elected Board of Directors assumed charge of 1,397 Fisheries Co-operative Societies.

The details of the Societies / Members are given in the following Table 13:

Table 13: Details of Members of Fishermen Co-operative Societies

Society	No. of Societies	Members enrolled
Primary Co-operative Societies		
Marine Fishermen Co-operative Societies	575	3,38,271
Marine Fisherwomen Co-operative Societies	445	2,18,538
Inland Fishermen Co-operative Societies	303	79,110
Inland Fisherwomen Co-operative Societies	66	7,371
Total Number of societies and members enrolled.	1,389	6,43,290
District Fishermen Co-operative Federation	11	915
Tamil Nadu State Apex Fisheries Co-operative Federation	1	602

14. TAMIL NADU FISHERMEN WELFARE BOARD (TNFWB)

Tamil Nadu Fishermen Welfare Board established with a view to provide and ensure social security and the well being of fishermen and labourers engaged in fishing and allied activities, is functioning with its Head Office at Neelankarai, Chennai.

A total of 4.24 lakh fishermen / fisherwomen labourers are enrolled as members in the Board. As per the provisions of the TNFWB Act, so far a sum of Rs. 10.60 crore has been collected as contribution from various agencies.

The Welfare schemes being implemented by the Tamil Nadu Fishermen Welfare Board are as follows (Table-14)

Table 14: Details of Welfare Schemes being implemented by the Fishermen Welfare Board

Sl. No	Details of Relief Assistance	Relief / Assistance per beneficiary (Amount in Rs)			
1.	Accident Relief				
	a) Death due to Accident	1,00,000			
	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	50,000			
	g) Loss of limbs due to Major injuries other than the above items.	20,000			
2	Death during fishing or after fishing due to reasons other than Accidental death.	1,00,000			
3	Fishermen Missing during fishing.	1,00,000			
4	Natural Death	15,000			
5	Funeral Expenses	2,500			
6	Assistance for Education to son and daughter of the Members.	Day scholar		Hostellier	
		Boys	Girls	Boys	Girls
	a) Pass in 10 th Std.	1,250	1,500	---	---
	b) Pass in 12 th Std.	1,750	2,000	---	---
	c) ITI and Polytechnic	1,250	1,750	1,450	1,950
	d) Bachelor Degree	1,750	2,250	2,000	2,500
	e) Post Graduate Degree	2,250	2,750	3,250	3,750

	f) Under Graduate Professional Courses (Law, Engineering, Medicine, etc.)	2,250	2,750	4,250	4,750
	g) Post Graduate Professional Courses	4,250	4,750	6,250	6,750
7	Marriage Assistance			Male	Female
	a) Marriage Assistance to Member			3,000	5,000
	b) Marriage Assistance to son / daughter of a Member			3,000	5,000
8	a) Delivery @ Rs.1,000/- per month for 6 months				6,000
	b) Miscarriage				3,000
	c) Termination of Pregnancy				3,000
9	Old Age Pension (Above 65 Years)				400 per month

- During the year 2013-14, the Government enhanced the relief assistance for natural death from Rs.10,000/- to Rs.15,000/- and the relief assistance to death while fishing or after fishing other than accidental death from Rs.20,000/- to Rs.1,00,000/-
- During the year 2013-14, 7856 claims have been settled and Relief / Assistance totaling Rs.2.97 crore under various schemes have been disbursed.

- In order to ensure transparency in disbursement of relief / assistance that too within shortest period of time, the relief assistance is being disbursed to beneficiaries through National Electronic Fund Transfer (NEFT).

15. TAMILNADU STATE APEX FISHERIES CO-OPERATIVE FEDERATION LIMITED (TAFCOFED)

Tamil Nadu State Apex Fisheries Co-operative Federation Limited (TAFCOFED), has been registered under Tamil Nadu Co-operative Societies Act 1983 and functioning since 19.10.1992 with its headquarters at Chennai. At present, 408 Marine Fishermen Co-operative Societies, 124 Inland Fishermen Co-operative Societies, 71 Fisherwomen Co-operative Societies and 9 District Fishermen Co-operative Federations have been enrolled as Members in TAFCOFED with a total share capital of Rs.89.195 lakh.

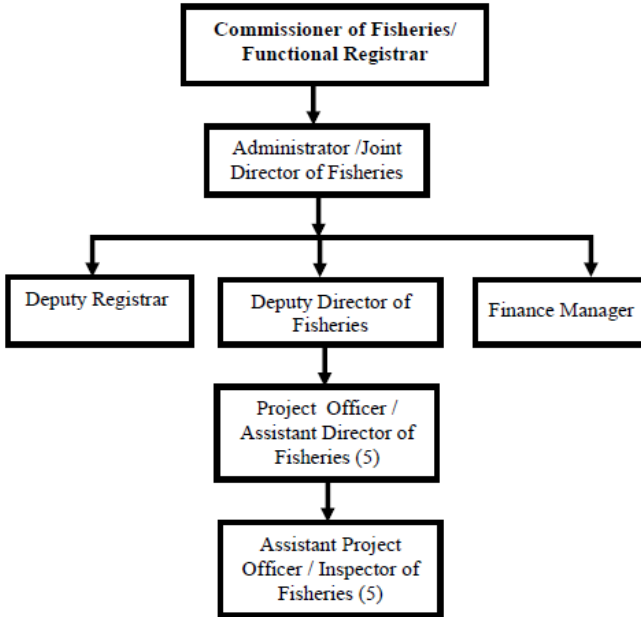
Election for TAFCOFED was conducted on 08.07.2013 and the newly elected President,

Vice-President and 15 Board of Directors assumed charge on 17.07.2013. The Board comprises of 25 Board of Directors, the composition of which is as follows

- elected members – 17
- co-opted member having experience in the field of fisheries nominated by the elected members -1
- functional Directors nominated by the Government – 7

The organisational setup of Tamil Nadu State Apex Fisheries Co-operative Federation Limited (TAFCOFED) is depicted below:-

Organizational Setup of Tamil Nadu State Apex Fisheries Cooperative Federation



The 13th General Body meeting of TAFCOFED was held on 31.01.2014.

The following are the major activities being carried out by Tamil Nadu State Apex Fisheries Co-operative Federation Limited (TAFCOFED)

15.1 Sale of Outboard Motors / Inboard Engines

Tamil Nadu State Apex Fisheries Co-operative Federation Limited (TAFCOFED) is a designated agency for supplying Outboard Motors / Inboard engines to the fishermen under Central and State Subsidy schemes. A subsidy of Rs.30,000/- or 50% of the cost of the engine whichever is less, is given to each fisherman. During the year 2013-14, 194 engines were supplied.

15.2 Supply of sales tax exempted Subsidised Industrial Kerosene to the Traditional Motorised Fishing Crafts

The Tamil Nadu State Apex Fisheries Co-operative Federation Limited (TAFCOFED) is supplying sales tax exempted subsidised industrial Kerosene to the traditional motorised fishing crafts in Thoothukudi and Tirunelveli Districts. A total of 3,196 KL of industrial Kerosene was supplied during 2013-14.

15.3 Supply of Sales Tax exempted Diesel for Fishing Crafts

TAFCOFED has established 13 Diesel Bunks for supplying sales tax exempted diesel to fishermen at Chinnamuttom in Kanniyakumari district, Vembar and Tharuvaikulam in Thoothukudi district, Keelakarai, Mandapam and Rameswaram in Ramanathapuram district, Jegathapattinam in Pudukkottai district, Sethubavachatram in Thanjavur district, Nagore in Nagapattinam district, Annankovil and Cuddalore in Cuddalore district, Neelankarai in Kancheepuram district and Pazhaverkadu in Tiruvallur district. So far, 21,210 KL of sales tax exempted diesel was supplied to fishermen during the year 2013-14.

15.4 Fish Marketing.

Two fish retail outlets are functioning at Neyveli Lignite Corporation Ltd., (NLC) Township, and at Ariyalur.

Under NADP Scheme, TAFCOFED established one modern fish retail outlet at Vaiyavoor in Kancheepuram district and supplied two mobile fish marketing vehicles to two fisherwomen Co-operative societies at a total cost of Rs. 30.75 lakh.

16. TAMIL NADU FISHERIES DEVELOPMENT CORPORATION LIMITED (TNFDC)

The Tamil Nadu Fisheries Development Corporation Limited was established in 1974 as a State Owned Public Sector Undertaking with an authorised Share Capital of Rs.5 crore and a paid up Share Capital of Rs.4.45 crore.

- The Board of Directors are appointed by the Government of Tamil Nadu.
- At present, 146 employees are working in various categories.
- TNFDC is undertaking various commercial activities in the Fisheries Sector.

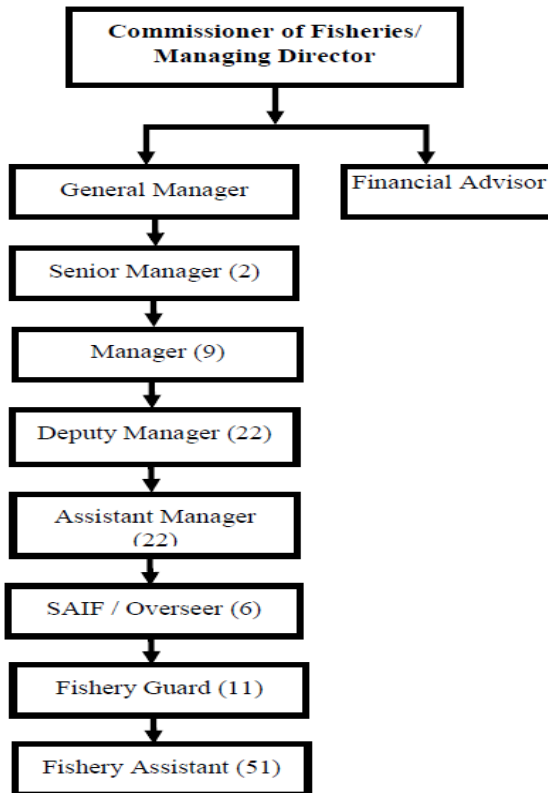
The following are some of the important activities being undertaken by the Corporation.

- Reservoir Fisheries Management
- Fish Seed Production
- Fish Marketing and Fish food courts
- Production and Marketing of Ornamental Fish

- Shrimp Hatchery and Shrimp Farm
- Sale of Diesel, Kerosene and OBM / IBE

The organisational setup of The Tamil Nadu Fisheries Development Corporation Limited (TNFDC) is depicted below:-

Organizational Setup of Tamil Nadu Fisheries Development Corporation



16.1. Reservoir Fisheries Management

Systematic scientific stocking of fish seeds is being done for sustainable fish production in eight reservoirs which are managed by Tamil Nadu Fisheries Development Corporation Limited. Harvesting of fish is being carried out by engaging members of inland fishermen co-operative societies in the respective areas of reservoirs as share fishermen.

To supplement the revenue to the Corporation, the fishing rights of certain reservoirs have been leased out to Private Fish Farmers.

In the Financial year 2013-14, TNFDC exploited 513.70 tonnes of fish from the reservoirs to the tune of Rs.502.58 lakh. It is proposed to exploit 1,037 tonnes of fish and realise Rs.711.99 lakh as revenue for the Financial Year 2014-15.

16.2. Fish seed Production

Tamil Nadu Fisheries Development Corporation Limited is having a total fish seed rearing area of 3.79 hectares. Fish seeds produced by the TNFDC are stocked in the reservoirs managed by the TNFDC

besides supplying to the Fisheries Department and private farmers.

During the financial year 2013-14, the Corporation has produced 148 lakh of early fry and 22.24 lakh of advanced fingerlings and realised a revenue of Rs.37.67 lakh from the fish seed farms. It is proposed to produce 270 lakh of early fry and 51.20 lakh of advanced fingerlings and realise a sum of Rs. 88.59 lakh as revenue for the Financial Year 2014-15.

16.3. Fish Marketing

The Corporation is marketing fresh fish through its chain of retail fish stalls in Chennai, Madurai, Coimbatore, Tirupur, Pollachi and Thiruvannamalai. During the year 2013-14, 1,178 tonnes of fish have been marketed, earning a profit of Rs.92.34 lakh. The Corporation has been operating fish food courts in Chennai, Coimbatore and Tirupur. It is proposed to sell 1,420 tonnes of fishes for the year 2014-15 with an anticipated profit of Rs.98.61 lakh.

16.4. Diesel Outlets

At present, the Corporation is operating 30 diesel outlets in the Fishing Harbours and fish landing centres located all along the coastal area in the state to supply subsidised high speed diesel to the traditional and mechanised fishing craft owners. The Corporation sold 92,951 KL of high speed diesel during 2013-14 and realised a profit of Rs.6.88 crore. It is proposed to sell 96,601 KL of diesel through which a profit of Rs.7.65 crore is anticipated, for the financial year 2014-15.

16.5. Supply of sales tax exempted Subsidised Industrial Kerosene to the Traditional Motorised Fishing Crafts

The Corporation is supplying sales tax exempted subsidised kerosene to the traditional fishing crafts in Kanniyakumari District. 6,787 KL of Kerosene has been supplied during the financial year 2013-14, earning a profit of Rs.35.68 lakh. It is expected to supply 7,776 KL of sales tax exempted subsidised kerosene with an anticipated profit of Rs.40.51 lakh for the Financial Year 2014-15.

16.6. Supply of OBM/IBE to Traditional fishing crafts

The TNFDC is supplying Outboard Motor/Inboard Engines under Centrally Sponsored Subsidy scheme to the fishermen for motorisation of the traditional fishing crafts. During the year 2013-14, 22 numbers of Out Board Motors were supplied to the fishermen and earned profit of Rs.0.96 lakh.

16.7. Production and Marketing of Ornamental Fishes

TNFDC has established ornamental fish breeding & production centers at Aliyar and Thirumoorthy Nagar. Ornamental fish sales centre-cum-Aquarium has been functioning at Aliyar, Thirumoorthy Nagar and Chennai. The Aliyar and Thirumoorthy Nagar ornamental fish sales cum aquarium were renovated at a cost of Rs.30 lakh. During 2013-14, Rs.24.60 lakh was realised from the sale of ornamental fishes and accessories. The target fixed for production and marketing of Ornamental fishes in terms of money value is Rs.41.42 lakh during the financial year 2014-15.

16.8. Infrastructural Facilities leased out

❖ Fish Processing plant

The processing facilities at Mandapam was leased out to a private sea food exporter for Rs.21.85 lakh during the year 2014-15. Similarly, the fish pre-processing complex at Thoothukudi has been leased out to the private fish food processor for an amount of Rs.4.80 lakh during the year 2014-15.

❖ Shrimp Hatchery at Neelankarai, Chennai

The hatchery facilities has been leased out to "Rajiv Gandhi Centre for Aquaculture" a society of Marine Products Export Development Authority since 24.01.2004 for shrimp brood stock management and quarantine of imported brood stock. During the year 2014-15, Rs.5.63 lakh will be collected as lease amount.

❖ **Model Shrimp farm at Karangadu, Ramanathapuram**

The shrimp farm at Karangadu has been leased out to a private farmer during 2014-15 for a sum of Rs.7.45 lakh.

16.9. Other Schemes

The following are the new schemes that are under implementation:-

16.9.1. Modernisation of wholesale fish market at Ukkadam, Coimbatore

The TNFDC Ltd., has proposed to modernise the existing wholesale fish market at Ukkadam, Coimbatore with modern facilities such as cold storage, ice plant, waste disposal system etc., by availing financial assistance of Rs.2.25 crore from National Fisheries Development Board, Hyderabad. This project is being implemented by the Municipal Corporation, Coimbatore at a total cost of Rs.3.24 crore for which the Municipal Corporation, Coimbatore has contributed Rs.0.99 crore from its own source. Nearly 90% of the works are completed and remaining works are expected to be completed by August 2014.

16.9.2. Establishment of Fish handling Centre with Ice Plant and Cold Storage at Central Institute of Brackishwater Aquaculture (CIBA) Complex, Santhome, Chennai

The TNFDC Ltd. has established a fish handling centre with facilities for cold storage and for producing flake ice etc., at a cost of Rs.93 lakh for improving the quality and standard of fresh fish marketing in CIBA Complex at Santhome, Chennai by availing financial assistance of Rs.45 lakh from National Fisheries Development Board (NFDB), Hyderabad. This, centre is catering to the needs of TNFDC's retail fish marketing stalls at Chennai city for the supply of quality and hygienic fish to the consumers at reasonable price.

During the year 2014-15, it is proposed to construct a new building for Chennai fish marketing division at Santhome at an estimated cost of Rs.2.50 crore with TNFDC's own funds.

16.9.3. Establishment of Fish Dressing Centre at Nagapattinam Fishing Harbour

The Fish Dressing Centre has been established at Nagapattinam with financial assistance of Rs.1 crore from National Fisheries Development Board (NFDB) for production and marketing of value added fish and fishery products and as per Government Orders, the same has been transferred to the Tamil Nadu Fisheries University for imparting training in value added fish products to the fishermen and women self help groups.

16.9.4. Upgradation of Infrastructure Facilities with Ice plants at Thoothukudi Fishing Harbour

Under the Scheme for strengthening of infrastructure in Fishing Harbour / Fish Landing Centers with financial assistance from National Fisheries Development Board (NFDB), Hyderabad and Marine Product Export Development Authority (MPEDA), Thoothukudi Fishing Harbour is being upgraded with provision for Tube ice Plant and cold storage. The refrigeration plant and machinery have been given by Marine Product Export Development Authority, Government of India. The civil works at an

estimated cost of Rs.12 lakh are being carried out with funding assistance from National Fisheries Development Board (NFDB) and machinery installation works are in progress. The works will be completed by August 2014.

16.9.5. Modern Mobile Fish Kiosks and Mobile Fish Food Restaurants

In order to overcome the difficulties in getting land for construction of permanent modern fish stalls, it is proposed to operate modern mobile fish marketing kiosks in major cities such as Chennai, Madurai, Trichy, Coimbatore and other towns in the State to supply fresh and hygienic fish and seafood varieties to the consumers at their door steps at an affordable price. With the financial assistance from National Fisheries Development Board (NFDB) and NADP Schemes, 21 mobile fish marketing vehicles have been purchased and are being operated at various places.

A mobile Fish Food restaurant established under National Agriculture Development Programme (NADP) Scheme at a cost of Rs.20 lakh is being operated at

Marina Beach, Chennai, which is supplying variety of value added Sea Foods to the customers. It is proposed to introduce a few more mobile restaurants and fresh fish stalls in the city.

16.9.6. Upgradation of Tamil Nadu Fisheries Development Corporation (TNFDC) Fish Farms

Under the National Agriculture Development Programme (NADP) scheme for the year 2012-13, the Tamil Nadu Fisheries Development Corporation (TNFDC) has carried out improvement work in the fish farms at Sathanur, Aliyar, Amaravathy, Thirumoorthy and Palar-Porandalar by carrying out repairs at an estimated cost of Rs.1.64 crore, so as to increase the fish seed production.

16.9.7. Ornamental Fish Marketing unit at Thirumoorthy Nagar

The Tamil Nadu Fisheries Development Corporation (TNFDC) has established an Integrated Ornamental Fish Production unit at Thirumoorthy Nagar at an estimated cost of Rs.15 lakh with financial

assistance from NFDB. Production and sale of ornamental fish has been commenced.

16.9.8. Establishment of Fish Handling Centre with cold storage facilities at Kuruchi, Coimbatore

The Tamil Nadu Fisheries Development Corporation (TNFDC) Ltd. is establishing a fish handling centre at Kuruchi, Coimbatore District with facilities such as cold storage, fish handling area etc., for improving the quality standards and marketing of fresh fish which has been exploited from the reservoirs situated in far off places. Financial assistance to the tune of Rs.70 lakh has been availed by the Tamil Nadu Fisheries Development Corporation (TNFDC) for this purpose from National Fisheries Development Board (NFDB), Hyderabad. On completion, this centre would cater to the needs of TNFDC's retail fish marketing stalls in the above places for the supply of quality and hygienic fish and fish products to the consumers at reasonable prices. The work is in progress and will be completed by December 2014.

16.10 Financial position

The Corporation has undertaken various commercial activities such as fresh fish marketing, sea food courts, diesel / kerosene distribution and reservoir management etc. Apart from this, various fishermen welfare Schemes are being implemented through Tamil Nadu Fisheries Development Corporation. During the year 2013-14, the Tamil Nadu Fisheries Development Corporation (TNFDC) earned a profit of Rs.7.75 crore. The anticipated profit for the financial year 2014-15 will be about Rs.8.50 crore.

16.11 Payment of dividend to Government

For the first time since its formation, the Corporation paid 10% dividend on its paid up share capital (i.e) Rs.44,55,200/- for the year 2012 – 13 to the State Government.

An amount of Rs.50 lakh has also been paid to the Chief Minister's Public Relief Fund by the Corporation.

16.12 Staff Welfare

Besides improving the commercial activities, the corporation is taking up several welfare measures for its employees. The corporation extends all eligible personal benefits to its employees on par with that of the employees of State Government. During 2013-14, promotions were given to 23 eligible employees of the corporation after a period of 20 years. Action is also being taken to recruit new employees for the Corporation.

Thirteen persons have been directly recruited under various categories.

16.13 Contribution of TNFDC Ltd., for Fisheries projects and Fishermen Welfare Schemes

TNFDC has been regularly paying royalty and lease rent to the Government towards fishing rights of reservoirs. Apart from this, the TNFDC has paid a sum of Rs1.04 crore as its contribution to Tamil Nadu Fishermen Welfare Board from its business operations during the financial year 2013-14.

The TNFDC has also contributed Rs 66.68 lakh to several fisheries projects and Fishermen Welfare Schemes from its revenue as part of its Corporate Social Responsibility (CSR) as detailed in Table-15:

Table 15: Contribution to Fisheries Projects and Fishermen Welfare as Corporate Social Responsibility (CSR)

Sl. No.	Name of the Scheme	Amount Sanctioned (in Rs.)	Amount Released (in Rs.)
1.	Consultancy charges for Chennai Fishing Harbour- Phase II Works, Preparation of Detailed Project report by Appointing Consultants & Preparation of Tender Documents.	75,00,000	14,73,203
2.	Consultancy charges for preparation of Detailed Project Report for establishing Mid Sea Fish Processing Units cum carrier mother vessels on Public Private Partnership mode and appointment of consultancy for conducting feasibility study and Transaction Advisory Service.	65,00,000	Nil

Sl. No.	Name of the Scheme	Amount Sanctioned (in Rs.)	Amount Released (in Rs.)
3.	Consultancy charges for the preparation of Detailed Project Report for Construction of Fishing Harbour at Mookaiyur in Ramanathapuram District. Finalizing suitable consultants for the preparation of documents.	52,00,000	25,89,898
4.	Fishing Harbour at Manakudy in Kanniyakumari District on Public Private Partnership Mode. - Consulting Services for appointing Consultants for Transaction Advisory Services.	12,13,871	12,13,871
5.	Expenses incurred towards repatriation of fishermen from Kanniyakumari District during 'Phailin' cyclonic storm from Odisha to their native places.	5,27,816	5,27,816
6.	Expenses incurred towards repatriation of fishermen arrested in Iranian waters and jailed in Iran prison	3,32,444	3,32,444

Sl. No.	Name of the Scheme	Amount Sanctioned (in Rs.)	Amount Released (in Rs.)
7.	Expenses towards Indo-Sri Lankan fishermen level talks held at Chennai.	3,07,851	3,07,851
8.	Expenses towards repatriation of Tamil Nadu and Karaikal fishermen who were released from Sri Lankan jails.	2,23,404	2,23,404
	Total	2,18,05,386	66,68,487

17. Tamil Nadu Fisheries University (TNFU)

To provide professionally qualified and skilled manpower resources in the State so as to augment fish production and exports, the Hon'ble Chief Minister announced the establishment of Tamil Nadu Fisheries University at Nagapattinam. In pursuance thereof to the announcement, the Tamil Nadu Fisheries University, the first of its kind in the country was inaugurated by the Hon'ble Chief Minister on 19.06.2012.

Objectives

The objectives of Tamil Nadu Fisheries University (TNFU) are as follows:

- To impart quality professional education in different branches of Fisheries Sciences.
- To conduct organised research in frontier areas with the objective of developing cutting edge technologies in Fisheries Sciences.
- To provide extension services like training, consultancy, project formulation to fish farmers, fisherfolk, unemployed-youth and entrepreneurs in Fisheries Sciences.
- To facilitate comprehensive development of Fisheries Sciences for increased contribution to State's economy and set bench marks through appropriate interventions in fisheries teaching, research and extension.
- To generate baseline data on aquatic biodiversity and fisheries resource potential.
- To produce competent professionals in Fisheries Sciences by following the

regulations of Veterinary Council of India as a model.

- To create better opportunities for marketing and value addition of fish and fishery products.
- To establish an aquatic disease diagnosis and surveillance system in the State.

17.1 Constituent Units of Tamil Nadu Fisheries University

The constituent units of Tamil Nadu Fisheries University are given below:-

❖ COLLEGE

1. Fisheries College and Research Institute, Thoothukudi

❖ INSTITUTES

1. Institute of Fisheries Technology, Ponneri
2. Institute of Fisheries Technology, Nagapattinam
3. Staff Training Institute, Chennai
4. Fisheries Institute of Technology and Training (FITT), Chennai

❖ **FISHERIES RESEARCH AND EXTENSION CENTRE**

1. Fisheries Research and Extension Centre, Madhavaram Milk Colony, Chennai

❖ **FISHERIES TRAINING AND RESEARCH CENTRES**

1. Fisheries Training and Research Centre, Parakkai, Kanniyakumari District
2. Fisheries Training and Research Centre, Thanjavur

17.2 Activities of Tamil Nadu Fisheries University (TNFU)

The activities of TNFU in the areas of Education, Research and Extension Services are outlined below:

17.2.1 Education

Details of sanctioned strength of students for admission during the year 2013-2014 at TNFU are furnished below:-

Table 16: Students / Trainees admission strength

Courses	FC&RI, Thoothu- kudi	IFT, Ponneri	IFT, Nagapa- ttinam	Total
B.F.Sc	40	-	-	40
M.F.Sc	28	-	-	28
Ph.D.	5	-	-	5
Certificate Courses				
1. One year Certificate course on Aquaculture	--	--	9	9
2. One year Certificate course on Fishing and Processing Methods.	--	7	--	7
3. Three months Certificate course on Better Management Practices (BMPs) in shrimp farming	--	--	17	17
4. Three months Certificate course on Ornamental Fish Technology	--	51	--	51

17.2.2 Research

- ❖ The Government of Tamil Nadu funds 23 Plan Schemes with a financial outlay of Rs. 18.12 crore for strengthening the infrastructure facilities for higher education, innovations, research and dissemination of knowledge.
- ❖ TNFU received 16 externally funded research programmes to the tune of Rs.5.22 crore during 2013-14.
- ❖ TNFU organised an academic seminar on 20.07.2013 and an exclusive research seminar on 13.09.2013 at Fisheries College and Research Institute, Thoothukudi with the mandate to develop its vision plan.
- ❖ Established a fish quality monitoring and certification centre at Thoothukudi with funding assistance from Government of Tamil Nadu at a cost of Rs.20 lakh
- ❖ Established a 'Bio-secured Ornamental Fish Brood Bank' at fisheries research and

extension centre, Madhavaram, Chennai with funding from NFDB at a cost of Rs.25 lakh.

17.2.3. Collaboration with Overseas Institutes

- ◆ The Tamil Nadu Fisheries University signed a MoU on 07.10.2013 with Auburn University, USA to have academic and research collaboration.

17.2.4 Technologies released

- Four technologies developed at TNFU were released by the Hon'ble Minister for Animal Husbandry, Government of Tamil Nadu during the "Kalnadai Matrum Meen Vala Vaara Vizha - 2013" celebrated by Tamil Nadu University for Veterinary and Animal Sciences (TANUVAS) at Post Graduate Research Institute in Animal Sciences, Kattupakkam on 19.01.2013. They are
 - Assay for the detection of chloramphenicol residue in shrimp
 - Fish macaroni
 - Value added fish fingers
 - Hot filled, chilled fish curry

- Three technologies were released in the Agri-Tech Investigators Meet 2013 held on 18-19th June, 2013 at New Delhi in the under the National Agricultural Innovation Project (NAIP).
- TNFU organised a seminar on “Technologies developed by FC&RI” on 30.08.2013 to consolidate the technologies developed by it.

17.2.5 Laboratory services

The laboratories set up at the Fish Quality Monitoring and Certification Centre at Fisheries College and Research Institute, Thoothukudi and the Disease Diagnosis Laboratory of Fisheries Research and Extension Centre, Madhavaram, are utilised for testing water, fish, shrimp, and seafood samples for various quality parameters and earned a revenue of Rs.10 lakh during 2013-14.

17.2.6 Extension activities

The University has been conducting various training programmes with the objective of disseminating the technologies and best practices in close coordination with the Department of Fisheries,

Tamil Nadu Fisheries Development Corporation and other Government organisations, the details of which are given in the following Table -17.

Table 17: Important Training programmes conducted during 2013-14

Sl. No	Title of the Training Program	No. of Trainees Attended		Total No. of Trainees
		Male	Female	
1.	Advanced ornamental fish farming Technology (in three batches)	142	10	152
2.	Ornamental fish and live feed - advanced production technology	124	24	148
3.	Disease Management in Ornamental fish culture	15	1	16
4.	Preparation of value added fishery products	17	103	120
5.	Tilapia culture	42	6	48
6.	Composite fish culture	29	135	164
7.	Ornamental fish culture	50	199	249
8.	Hygienic handling of fish	-	18	18
9.	Freshwater fish culture	102	-	102
10.	Freshwater prawn culture	48	25	73
11.	Livelihood options in fisheries	24	120	144
	Total	593	641	1234

- Participated in the “Regional Livestock and Fisheries Exhibitions” conducted by Tamil Nadu Veterinary and Animal Sciences University TANUVAS at Srirangam, Tirunelveli, Villupuram and Coimbatore.
- Stakeholders meeting of aqua farmers, fish processors, fish exporters and fish entrepreneurs was organised on 22.05.2013 at Fisheries College and Research Institute, Thoothukudi.

17.2.7 Future Programmes

- Establishment of Post Graduate Research Centre at Chennai
- Establishment of Research Centres at Ramanathapuram, Kanniyakumari, and Dharmapuri districts
- Upgradation of Institute of Fisheries Technology, Ponneri as Fisheries College.
- Establishment of Centre for Fisheries Management, Policy and Planning at Chennai
- Establishment of Niche Area of Excellence in fish safety and quality assurance with funding assistance from ICAR at Thoothukudi

- Establishment of Faculty of Basic Sciences
- Starting of certificate courses on Marine Engineering (Fishing Vessel) and Nautical Science (Fishing Vessel)

17.3 Thrust areas of research

- ❖ Recirculatory aquaculture system for sustainable farming
- ❖ Breeding technology for marine cultivable species
- ❖ Conservation and improvement of native germplasm
- ❖ Resource assessment for sustainable fishing
- ❖ Marine nutraceuticals and functional foods
- ❖ Food safety quality and seafood authentication
- ❖ Monitoring of chemical residues in fish and fishery products
- ❖ Disease diagnosis, surveillance and vaccine development
- ❖ Development of convenience foods from fish
- ❖ Development of extruded and floating fish feed using indigenous ingredients

- ❖ Sea safety and responsible fishing
- ❖ Aquatic pollution monitoring

The Tamil Nadu Fisheries University will continue to provide quality education and undertake research and extension programmes intensively and strive hard for the development of fisheries sector in Tamil Nadu.

18. BUDGET FOR 2014-15

For the year 2014-15, a sum of Rs.511.84 crore has been provided in the Budget. Out of this, the projected revenue expenditure is Rs.339.69 crore and the capital expenditure is Rs.172.15 crore.

19. CONCLUSION

The Government of Tamil Nadu under the guidance of the farsighted visionary, the Hon'ble Chief Minister, unequivocally reiterates the commitment for an all-inclusive growth of Fisheries sector in the State. This commitment is achieved by providing our fishermen fraternity safety, security, enhanced livelihood opportunities, shore

infrastructural facilities on par with international standards, facilities to encourage quality enhancement of seafood which will in turn result in value addition, diversification of fishing efforts into deep sea, social security and quality of life for fishermen by pioneering implementation of multifarious developmental and welfare schemes in fisheries and aquaculture sector.

Inclusive growth is not possible without achieving a substantial increase in the per capita income of fishers who are engaged in fishing and its allied activities. More innovative and scientific approaches are being adopted for the development of fisheries and fishers by the Government. Promoting deep sea fishing in the State, development of world class shore infrastructure, development of Seafood processing parks along the coast in 13 selected coastal towns, construction of new fishing harbours and fish landing centres, Promotion of diversified fishing activities such as squid jigging and deep sea fishing are part of the ongoing innovative developmental initiatives of this Government in the marine fisheries sector. The promotion of Mariculture

activities will help to reduce the fishing pressure in the inshore waters and also act as a diversified activity for income generation.

The Government of Tamil Nadu accords top most priority to the safety and security of our fishermen. Our Hon'ble Chief Minister is determined to ensure that the traditional fishing rights of our fishermen which they have continuously enjoyed since time immemorial are well protected. With a deep sense of concern on the repeated incidents of attack, harassment and apprehension and unjustified incarceration of our fishermen in Sri Lankan jails, the Hon'ble Chief Minister has written as many as 47 letters to the Hon'ble Prime Minister of India since May 2011, seeking firm and decisive diplomatic action on this sensitive issue.

The Hon'ble Chief Minister has been waging a heroic and relentless struggle to retrieve Katchatheevu, which has been an integral part of India geographically, culturally and historically. In a deft move and spirit of accommodation, the Hon'ble Chief Minister ordered the direct talks between the

fishermen communities in Tamil Nadu and Sri Lanka, which was conducted at the Directorate of Fisheries in Chennai on 27.01.2014. With great tact since 2011, the Hon'ble Chief Minister has secured the release of 1,587 fishermen and their 274 fishing boats. Moreover, in continuation of the bilateral fishermen talks held at Chennai, the second round talks was held at Colombo on 12.05.2014. The Colombo talks could not make any headway due to the premeditated stance of the Sri Lankan officials. The Government of Tamil Nadu is committed to continue the bilateral fishermen level talks.

In order to bring prosperity to the lives of the fishers, this Government has introduced many fishermen welfare / development schemes. Enhancement of relief amount from Rs.1,000/- to Rs.2,000/- during the fishing ban period and special allowance of Rs.4,000/- during fishing lean season has given substantial relief to the poor fishermen families. In order to provide good and transparent Governance, the Government has ordered disburse most of all the relief assistance to the fisherfolk

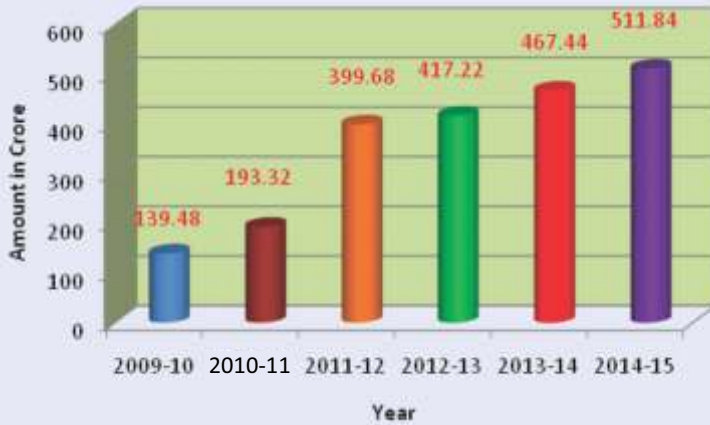
directly into their bank accounts through National Electronic Fund Transfer (NEFT).

In the inland fisheries sector, aquaculture is poised play a pivotal role in increasing fish production, ensuring food security and growth of State's economy. To maximise fish production from an unit area and to generate maximum income to the fish farmers, the Government has initiated innovative approaches such as stocking of fast growing fish species in the short seasonal water bodies, promotion of fish culture in farm ponds and introduction of cage culture in reservoirs.

The Hon'ble Chief Minister of Tamil Nadu, with her foresighted vision, has increased the size of the Fisheries budget from Rs.193.32 crore in 2010-11 to Rs.511.84 crore in 2014-15. The impetus provided for development of the Fisheries sector will surely yield positive dividends in the near future.

K.A. JAYAPAL
Minister for Fisheries

Budget Allocation from 2009-10 to 2014-15



16 Fishermen who were languishing in Iran Jail were released due to the consistent efforts taken by the **Hon'ble Chief Minister of Tamil Nadu**. The fishermen called on the **Hon'ble Chief Minister** on 18.09.2013 and expressed their gratitude



The Hon'ble Chief Minister of Tamil Nadu granted an ex-gratia amount of Rs 1 lakh each to 18 Tamil Nadu fishermen who were rescued from "Phailin" cyclone which struck Odisha Coast.



The Hon'ble Chief Minister of Tamil Nadu laying the foundation stone for construction of New Fishing Harbour at Poompuhar Nagapattinam District at an estimated cost of Rs.148 crore on 11.09.2013 through video conferencing.



The Hon'ble Chief Minister of Tamil Nadu laid the foundation stone for the establishment of sports fishing cum eco park in Chetpet lake at Chennai and inaugurated the new fish landing center at Parangipettai and stabilisation of Vellar bar mouth works in Cuddalore District to benefit the fishermen through video conferencing on 27-06-2014



Upgradation of Chennai fishing harbour under NABARD Scheme. Placing of Pre cast beams.



India – Sri Lanka Fishermen level Talks held on 27.1.14 at Chennai



India – Sri Lanka Fishermen level Talks held on 12.05.14 at Colombo, Sri Lanka



Construction of shore facilities at Cuddalore Periyakuppam Fish Landing centre under Tsunami Rehabilitation Programme(TRP).



Construction of Fish Landing Centre at Parangipettai – Annankoil under Emergency Tsunami Rehabilitation Programme.



Signing and Exchanging of MOU with the Auburn University, USA on 07.10.2013 on International collaboration for Fisheries Education and Research.



Training of fish farmers on advanced intensive raceway fish culture system at Madhavaram, Chennai.

FISH CULTURE IN MULTI-PURPOSE FARM PONDS



Stocking of advanced fingerlings,
Varagampattu Village, Nagapattinam



Sampling for assessing the growth, Thittai,
Thanjavur



Fully grown fish ready for harvest,
Mahadevapattinam, Thiruvarur

FISH CULTURE IN CAGES



Cages installed at Mettur Reservoir



Assessing the growth of GIFT Tilapia
at Thoppaiyar reservoir



Assessing the growth of Amur carp
at Mettur reservoir

FISH KIOSK UNDER TN-IAMWARM PROJECT



Fish Kiosk at Molachur, Kancheepuram District



Fish kiosk at Dindigul



Fish kiosk at Dharmapuri

**FISH SEED REARING
UNIT – TN – IAMWARM PROJECT**



Varahanadhi sub basin, Villupuram



Manimuthar Sub basin, Sivagangai



Nagariyar Sub basin, Virudhunagar



Manimuthar sub basin, Sivagangai

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