



**ENVIRONMENT AND FORESTS DEPARTMENT**

**POLICY NOTE**

**DEMAND No. 15**

**ENVIRONMENT**

**2015-2016**

**THOPPU N.D.VENKATACHALAM  
MINISTER FOR ENVIRONMENT**

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**GOVERNMENT OF TAMIL NADU  
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**1. Introduction**

An environment is the natural surroundings which help to grow, and nourish life on this planet called earth. Natural environment plays a great role in the existence of life on earth and it helps human beings, animals and other living things to grow and develop naturally. A clean environment is very necessary to live a peaceful and healthy life. Therefore, conservation of environment is an integral part of the socio economic development but due to population explosion and increasing industrialization a serious challenge has been posed to the preservation of our terrestrial and aquatic ecosystems. Conservation and enhancement of life support systems like land, water, forests and biodiversity are important for

ecological balance. Several initiatives have been taken by the Government for pollution abatement in rivers and lakes besides promoting environmental consciousness among the school children and the public at large.

While Tamil Nadu focuses on industrial development at a pace faster than the National average, the Vision Tamil Nadu 2023 Document stresses that it will not lose sight, of the need to preserve the environment. The Theme 8 in Vision Tamil Nadu 2023 document stresses that the environmental preservation shall encompass the entire ecological footprint of human activity and would include increasing forest cover, protection of wetlands, conserving groundwater and rivers and other water bodies, protection of the coastal zones and fragile ecosystems, conservation of the zoological and botanical diversity of the state, protection of soil and other natural formations from abuse on account of human activity, efficient recycling of solid waste ensuring minimal impact on

the environment, minimizing atmospheric pollution and in general maintaining the ecological balance across the entire State.

## **2. Directorate of Environment**

The Department of Environment was created in 1995 for dealing with the task of promoting environmental awareness in the State. The Directorate is entrusted with the co-ordination of major projects like pollution abatement in the rivers Cauvery, Vaigai and Tamiraparani and in the waterways of Chennai City. The National Lake Conservation Programme, management of Coastal Zone and all other environment protection efforts except those dealt with by the Tamil Nadu Pollution Control Board are the responsibility of this Directorate.

The Directorate is headed by a Director in the rank of Additional Principal Chief Conservator of Forests who is assisted by an Additional Director in the rank of Conservator of Forests. The sanctioned strength of the Directorate is 34.

### **3. Environment Management Agency of Tamil Nadu (EMAT):**

Environment Management Agency of Tamil Nadu (EMAT) was constituted in the year 2002 for co-ordination and liaisoning between National River Conservation Directorate, Ministry of Environment, Forests & Climate Change, Government of India and various implementing agencies for implementation of works under National River Action Plan and National Lake Conservation Plan. The Principal Secretary to Government, Environment and Forests Department is the Chairman and the Director of Environment is the Member Secretary of the Environment Management Agency of Tamil Nadu.

The following schemes are coordinated by Environment Management Agency of Tamil Nadu.

### **3.1. Abatement of pollution in the rivers under National River Conservation Plan (NRCP)**

Under National River Conservation Plan (NRCP), the sewage outfall from the towns into the rivers Cauvery, Vaigai and Tamiraparani has been diverted, collected and treated in Sewage Treatment Plants.

#### **3.1.1. Cauvery Stretch**

This is a Centrally Sponsored Scheme under NRCP at an overall project cost of Rs.380.58 crores and implemented since 1996-97 for abatement of pollution in the stretches of river Cauvery. A sum of Rs.336.59 crores had been spent by the implementing agencies. Under Core activities Interception & Diversion and Under Ground Sewerage Scheme with sewage treatment plants have been implemented through Tamil Nadu Water Supply and Drainage Board in (1) Erode, (2) Bhavani, (3) Komarapalayam, (4) Pallipalayam (5)

Tiruchi (6) Thanjavur (7) Mayiladuthurai (8) Karur-Inam Karur (9) Tiruchi–Srirangam and by Chennai Metro Water Supply & Sewerage Board in Kumbakonam. Under Non Core activities, construction of low cost sanitation, crematoria and river front development have been completed by local bodies.

### **3.1.2. River Vaigai**

Interception & Diversion works and Pumping stations (Phase I & II) were taken up by Chennai Metro Water Supply and Sewerage Board and the works have been completed at a cost of Rs.114.39 crores.

### **3.1.3. River Tamiraparani**

The Underground Sewerage Scheme (UGSS) works in respect of Tirunelveli were carried out by Tamil Nadu Water Supply and Drainage Board at a cost of Rs.54.78 crores. Solid Waste



Management works have been completed at a cost of Rs.0.76 crores by local bodies.

#### **3.1.4. Chennai City River Conservation Project (CCRCP)**

A project which aims for the up gradation of the sewerage system and preventing the entry of raw/partially treated sewage into the Chennai City waterways i.e. Cooum, Buckingham Canal, Adyar, Otteri Nullah, Captain Cotton Canal and Mambalam drain were implemented by Chennai Metropolitan Water Supply and Sewerage Board at a cost of Rs.394.73 crores.

#### **3.2. National Lake Conservation Plan (NLCP)**

As requested by the Ministry of Environment, Forests & Climate Change, Government of India in 2004, to identify the polluted lakes in the State and as per the revised NLCP Guidelines 2008 for consideration under National Lake Conservation

Plan, the following 15 lakes were identified and sent to the Government of India.

<b>SI.No</b>	<b>Name of District</b>	<b>Name of Lake</b>
1	Nilgiris	Ooty
2	Dindugul	Kodaikanal
3	Kancheepuram	Kolavoy
4	Kancheepuram	Thiruneermalai
5	Kancheepuram	Narayanapuram
6	Kancheepuram	Nemilichery
7	Kancheepuram	Kadaperi
8	Kancheepuram	Peerkankaranai
9	Salem	Yercaud
10	Chennai	Velachery
11	Coimbatore	Big Tank
12	Coimbatore	Singanallur Tank
13	Coimbatore	Krishnampathy
14	Madurai	Madakulam
15	Nagapattinam	Thamaraikulam

### **3.2.1. Revival of Ooty Lake**

The Government of India sanctioned Rs.1.75 crores for revival of Ooty Lake. All the

works were completed by the Public Works Department (PWD) during 2005 at a cost of Rs.1.73 crores with 100% Grant from Government of India. As per the instructions of the Hon'ble Chief Minister to clean up Ooty lake on war footing, a sum of Rs. 4.77 crores has been sanctioned from Environment Protection and Renewable Energy Development Fund (EPRED Fund) for carrying out the Action Plan to revive Ooty Lake. From the above, one time Grant of Rs.50 lakhs was released to the Lake Management Committee under the Chairmanship of District Collector, Nilgiris. A sum of Rs. 2.12 crores has been released for bio remediation of Ooty lake under EPRED Fund and the works has been completed.

### **3.2.2. Revival of Kodaikanal Lake**

During 2007, as per the revised Detailed Project Report, a sum of Rs.10.42 crores was sanctioned for the revival of Kodaikanal Lake. A sum of Rs.2.43 crores has been spent so far by

the implementing agencies and the work is under progress. Revised project for Rs.140 crores (including the cost for the balance works under earlier sanction) has been sanctioned for Kodaikanal lake.

### **3.2.3. Revival of Yercaud Lake**

Detailed Project Report for the revival of Yercaud lake in Salem district has been prepared by Tamil Nadu Water Supply and Drainage Board for Rs.8.46 crores and it has been sent to National River Conservation Directorate, Government of India for approval.

## **4. Eco- clubs**

To bring children into direct contact with the environmental problems facing the society they live in and to make them think of solutions, State funded Eco-clubs were formed at school levels which is first of its kind in India. The students of Eco-clubs are

engaged in various environmental awareness programmes like organizing rallies, marches, human chains, seminars, debates, tree planting, campus cleaning, rainwater harvesting, solid waste management including vermi composting.

During the year 2014-15, as announced by the Hon'ble Minister for Environment, 3200 Eco clubs have been formed at a cost Rs.1.60 crores and thereby 11,469 Eco clubs are functioning in Tamil Nadu. Financial assistance is enhanced from Rs.2500 to Rs.5000/- per school for which a sum of Rs.4.13 crores have been sanctioned and distributed to 11469 Eco clubs.

## **5. National Green Corps (NGC)**

National Green Corps Programme has been launched in the State with the support from Ministry of Environment, Forests & Climate Change (MoEF&CC), Government of India from 2002. The main objectives of the programme is to sensitize students about environment and related issues and

involving students in action based programmes related to environment such as tree planting, environmental awareness rallies, vermi-composting, enviro-expo, enviro competitions, anti plastic campaign, cultural programmes, nature camps and celebration of at least six green days in their surroundings.

National Green Corps is functioning in 8000 schools located in 32 districts @ 250 schools per district. The Government of India have approved a grant of Rs.2500/- per school every year. Training is given to master trainers and teacher coordinators of each district in NGC activities. 3,20,000 children are participating in the awareness movement under this programme.

## **6. Coastal Zone Management (CZM)**

Tamil Nadu has a coastal length of 1076 kms. and it constitutes about 15% of the total coastal length of India. The Government of India issued the Coastal Regulation Zone Notification in

2011 under Environment (Protection) Act, 1986 to protect the coastal environment and to regulate development activities along the coastal areas, thereby aiming to ensure livelihood security to the fishing communities, other local communities living in the coastal areas, to conserve and protect the coastal stretches, to promote sustainable development in the coastal areas. As per this notification, the coastal areas have been classified into four zones.

- CRZ-I (ecologically sensitive),
- CRZ-II (built-up area),
- CRZ-III (Rural area) and
- CRZ-IV (water area which includes the water areas up to 12 Nautical miles (Nm) of the territorial waters and the tidal influenced water bodies.)

CRZ area includes the land area from High Tide Line (HTL) to 500 mts on the landward side along the sea front, the land area between HTL to

100 mts or width of the creek, water bodies etc. whichever is less.

Integrated Coastal Zone Management (ICZM) is a dynamic, multidisciplinary and iterative process to promote sustainable management of coastal zones. It takes into account the full cycle of information collation, planning, decision making, management and monitoring and evaluation of implementation. The word 'integrated' in ICZM refers to the integration of wide variety of objectives depending on the stakeholder and also to the integration of the many instruments needed to meet these objectives. It further refers to the integration of policy areas, sectors, and levels of administration. It takes into account both the terrestrial and marine components of the target territory, in both time and space.

At present Public Works Department (PWD), Fisheries and Forest Departments are proposing several coastal protection works for clearance



under CRZ notification 2011. The State Coastal Zone Management Authority ensures that the said works are not taken in an ad hoc manner. The Authority takes decisions based on the high, medium and low eroding areas, and also based on sediment cells and shoreline maps prepared as a part of Coastal Zone Management Plan. Further, the erection of hard structures perpendicular to the coast saves the shoreline on one side and causes erosion on the other side. Hence, the Authority considers the erection of hard structures only if soft measures are not possible as a part of Comprehensive Coastal Zone Management Plan.

### **6.1. Coastal Zone Management Authorities**

The Government of India, Ministry of Environment, Forests & Climate Change, New Delhi has constituted State Coastal Zone Management Authority (SCZMA) with the Principal Secretary, Environment and Forests Department, Government of Tamil Nadu as the Chairman and the Director of Environment as its Member Secretary. The District

Coastal Zone Management Authorities under the Chairmanship of the respective Coastal District Collectors have been formed by the State Government during 1998. The Authority meets periodically to take action on CRZ issues.

## **7. Coastal Disaster Risk Reduction Project (CDRRP)**

To reconstruct the coastal stretches affected by the Tsunami and to have a Comprehensive Management Plan for the entire coast of the State, the following schemes were sanctioned with financial assistance from World Bank.

### **7.1 Demarcation of High Tide Line (HTL) along the Coast of Tamil Nadu from Palar River Mouth to Thengapattinam in Kanyakumari District**

The Department of Environment has demarcated high tide line for the stretch of the coastline including tidal influenced water bodies

from Palar River mouth to Thengapattinam in Kanyakumari District. The high tide line reference points have been superimposed on the village cadastral maps on a scale of 1:5000. This work has been entrusted to Institute of Remote Sensing, Anna University during the year 2007. The preparation of HTL maps has been completed and an amount of Rs.2.20 crores has been spent on this work. The HTL maps are made available to the District Authorities.

## **7.2. Erection of Stone Pillars on High Tide Line (HTL) reference points**

In order to facilitate the coastal community to identify the high tide line on ground, high tide line stone pillars have been proposed along the coast at 250 mtr. interval at a cost of Rs.1.64 crore. The works have been completed.

### **7.3 Preparation of Integrated Coastal Zone Management Plan (ICZMP)**

The Integrated Coastal Management Plan has been prepared for the coastline of Tamil Nadu at a cost of Rs.4.84 crores during the year 2013-14. This information will be the base for taking appropriate action in deciding any developments to be undertaken along the coast and the different layers of information can be made use to assess the damage caused by natural disaster and plan for remedial measures at times of coastal hazard.

### **7.4 Training and awareness programme**

To develop awareness about the Integrated Coastal Zone Management Plan among the various stakeholders and decision makers, training and awareness programmes are proposed at a cost of Rs.1.00 crore. As per training module, exposure cum training has been conducted for the decision makers and middle level officers. In respect to the

other stakeholders at the district level, training has been completed for all the 13 coastal districts.

## **8. Environmental Information System (ENVIS)**

The Environmental Information System Centre sponsored by the Government of India is functioning in the Department of Environment from October 2002. This Environment Information System Centre will provide information on various aspects about the State of Environment and related issues of Tamil Nadu.

ENVIS centre is engaged in collection, collation, storage, retrieval and dissemination of environmental information through a website *www.tnenvis.nic.in* and publication of Newsletters, creation of web based database answering environmental queries etc. are some of the activities covered under ENVIS.

## **9. Other Activities of the Department**

### **9.1. Environment Awards**

The contribution of the non-government organizations, experts and individuals who make valuable contribution in the field of environment education and awareness, environment protection and management is recognized by the government and they are honoured every year. These environmental awards which were instituted during the year 2000 are distributed on the World Environment Day celebrations on June 5<sup>th</sup> every year. Apart from the above category environmental award is also given for the best research paper. Ten awards per year are given worth Prize money of Rs. 1.13 lakhs.

### **9.2. Awareness campaign on the negative impacts of burning of Rubber and Plastic Materials**

In order to create awareness campaign and sensitize the citizens on the negative impact of

burning of tyres, plastics and other materials on the eve of Bhogi, a three day awareness campaign is organized by the Department of Environment throughout Chennai City. The Public are addressed through Public Address System, visual media to refrain from burning of plastic, tyres etc., Hand Bills are distributed to the Public and the Eco-clubs throughout the State. Similar campaigns are organized every year. Because of these campaigns, there has been significant reduction in the burning of plastics and tyres on the eve of Bhogi. Bhogi awareness activities were carried throughout the State by NGC Eco clubs.

## **10. Environment Protection and Renewable Energy Development Fund**

The Government of Tamil Nadu in G.O.(3D) No 43 / Environment & Forest (EC-2) Department dated 19.7.2010 created an “Environment Protection and Renewable Energy Development Fund” for implementing schemes for the protection

of the environment and promotion of clean energy in the State.

This fund will be utilized both for promotional and project based activities and will cover activities like greening of Tamil Nadu through planting of trees outside the forest areas, initiatives and interventions in the field of renewable energy and prevention of environment degradation through Government Departments, Public Sector undertakings / organizations, non-governmental organizations, Voluntary Organizations, Self-Help Groups, Tree Grower Societies, Community Based Organizations, Educational and Research Institutions / organizations and individuals.

#### **10.1. Relaying of Roads using plastic waste collected from Local Bodies**

As per the directions of the Hon'ble Chief Minister of Tamil Nadu to make Tamil Nadu a Plastic Free State it was decided to use the plastic waste collected by the local bodies for relaying of



roads. Accordingly from 2011-2012 to 2014-2015 an amount of Rs.218.67 crores are utilized, for relaying plastic roads to a total length of 1596 Kms.

## **10.2. Eco Restoration activities**

Wetlands and lakes are an important feature of the earth's Landscape. They are not only a significant source of precious water but often provide valuable habitats to plants and animals enhance the aesthetic beauty of the landscape. The different problems encountered in the lake include excessive influx of sediments from the lake catchment, discharge of untreated or partially treated sewage and industrial waste water / solid waste disposal, entry of diffused source nutrients from agricultural, improper management of storm water, over exploitation of lake. The restoration and conservation of the lakes is for achieving the desired water quality enhancement besides improvement in bio diversity and eco system by

carrying out the works viz. de-silting, diversion of sewage entering into lake.

During the year 2014-2015, Rs.100 crores has been allocated for restoration of Chetpet lake in Chennai, restoration of Madhavaram, Ambattur, and Korattur wetland complex in Thiruvallur district and Sarkarperiyapalayam lake in Tiruppur district, awareness activities on plastics, Shola regeneration, formation of EID Centres, production of short video film to disseminate the importance of Ecology and its conservation, enhancing financial assistance to Eco club etc. and works have been completed. The Madhavaram, Ambattur and Korattur wetland complex restoration will be a model for restoration for other wetlands throughout the State.

A sum of Rs.3.59 crores has been allocated during 2014-15 for eco restoration and rejuvenation of 19 number of water bodies in Wildlife / Bird Sanctuaries and National Parks. A sum of Rs.8.26 crores has been released towards the

implementation of the Massive Tree Planting Programme marking the 66<sup>th</sup> Birthday celebration of the Hon'ble Chief Minister by planting 66 lakhs trees in 32 districts of the State and these programmes has been implemented by the Forest Department.

A sum of Rs.2.40 crores has been released for establishing Plastic Waste Collection and Processing Centre in 20 places through the Director of Municipal Administration and Tamil Nadu Women Development Corporation.

### **10.3. Incentive scheme and awareness activities**

As per the direction of the Hon'ble Chief Minister to make Tamil Nadu a Plastic Free State, incentives to the tune of Rs.30 lakhs at the rate of Rs.5 lakhs, Rs.3 lakhs, Rs.2 lakhs as first, second and third respectively, have been distributed to the best three plastic free Villages, best three Self-help groups who play a major role in collecting maximum plastic waste in their area and best plastic free, green & clean three Schools in the State.

## **11. State Action Plan on Climate Change**

Climate change is a major global environmental problem and also an issue of great concern to a developing country like India. Integrating the issue of Climate change adaptation in various sector policy decisions that reduce risk and enhance the adaptive capacity, the States in India have to implement the SAPCC. It is a fact that climate change manifests itself locally, through the drivers of the change i.e., the greenhouse gases are generated globally through anthropogenic activities. In view of the fact that local vulnerabilities due to climate change can be addressed more adequately at local level itself, the State of Tamil Nadu has prepared its State Action Plan on Climate Change (TNSAPCC). The Approach of the TNSAPCC is to create and define a overarching climate response framework at the State Government level to reduce vulnerability, reduce hazards and exposure and

respond effectively and increase capacity to cope with unforeseen events.

The focus areas identified were

- Sustainable Agriculture
- Water Resources
- Coastal Area Management
- Forest and Biodiversity
- Sustainable Habitat
- Energy Efficiency, Renewable Energy and Solar Mission
- Knowledge Management

Preserving, and wherever possible, improving the quality of the environment and nurturing the cultural heritage of the State is an essential ingredient of Vision Tamil Nadu 2023.

The strategies and actions indicated in the State Action Plan on Climate Change are being

implemented as a part of adaptation and mitigation measures by the Government of Tamil Nadu.

A sum of Rs.10 lakhs has been allocated for establishing Climate Change Cell in the Department of Environment during the year 2014-15 under Part-II Scheme and the Cell has been formed. The activities of the Cell are to find ways through “Climate Change Governance” to develop modalities to implement the State Action Plan on Climate Change (SAPCC) for each sector. Further, it will formulate a mechanism to build capacity for different stakeholders ranging from farmers, fishermen, public, policy planners, decision makers, bureaucrats and others with the improved information of latest climate change.

## **12. Part II Schemes for 2014-15**

- In order to make the children understand environment and environmental issues and to provide opportunities, financial assistance of Rs.100 lakhs has been released for best

performing 500 Eco Clubs/NGC Eco Clubs at the rate Rs.20,000/- per school for the year 2014-15.

- A sum of Rs.50 lakhs has been sanctioned for carrying out various awareness programmes such as conducting Seminar & Workshops, erecting Hoardings in 32 districts in Tamil Nadu and Web Hosting (Online Quiz) and the works have been completed. The Department of Environment is conducting online quiz periodically.
- To prepare Environment Management Plan for two eco sensitive areas of the State i.e. Srirangam in Trichy district and Rameswaram in Ramanathapuram district which requires immediate attention by adopting integrated management approaches, an amount of Rs.10 lakhs each has been released for the year 2014-15 and two Environment Management Plans have been prepared.

- The existing seven Environment Information Dissemination Centres (EIDC) in various Districts have been strengthened at a cost of Rs.10 lakhs during the year 2014-15. At present 57 EID Centres are functioning.

### **13. Mass Awareness Campaign**

For sensitizing the public about the ill effects of non degradable plastics and to avoid the usage of plastics to control the degradation of Environment, Awareness Programmes through “Message on Wheels” were carried out through Non Governmental Organizations in all the 32 districts of the State at a cost of Rs. 64.00 lakhs.

### **14. Eco Restoration activities 2015-16**

Hon’ble Minister for finance in his budget speech 2015-16 has announced that eco-restoration activities will be taken up in Madhavaram, Ambathur, Korattur Lakes in Chennai



along with other Environment protection activities at a cost of Rs.50 crores and accordingly it is proposed to carryout the following activities during 2015-16.

- a) Rehabilitation and Restoration of Korattur, Ambathur and Madhavaram Tank in Thiruvallur District (Phase - II) at a cost of Rs.20 crores.
- b) Production of 5 Segment of Short video films / Advertisement on the importance of Ecology and its Conservation at a cost of Rs.5 crores
- c) Relaying of Roads using Plastic Wastes through Forests Department at cost of Rs. 21 crores
- d) Eco restoration of Sarkarperiyapalayam Tank in Avinashi Taluk in Tiruppur district at a cost of Rs.2 crores.
- e) Improvements and Beautification of Kanirauthar Kulam and Providing Flood Protection Wall with Footpath arrangements at Erode at a cost of Rs.2 crores.

# **TAMILNADU POLLUTION CONTROL BOARD**

## **1. INTRODUCTION**

Tamil Nadu Pollution Control Board (TNPCB) was constituted by the Government of Tamil Nadu in the year 1982 in pursuance of the Water (Prevention and Control of Pollution) Act, 1974 (Central Act 6 of 1974), with a view to protect the environment, to prevent and control the pollution of water in the State of Tamil Nadu. The Board enforces various Environmental Acts and Rules as notified by the Government of India from time to time. It includes the followings:-

- The Water (Prevention and Control of Pollution) Act, 1974
- The Water (Prevention and Control of Pollution) Cess Act, 1977
- The Air (Prevention and Control of Pollution) Act, 1981
- The Environment (Protection) Act, 1986,

- The Environment (Protection) Rules, 1986
- The Noise Pollution (Regulation and Control) Rules, 2000 as amended
- The Municipal Solid Wastes (Management and Handling) Rules, 2000
- The Biomedical Waste (Management and Handling) Rules, 1998 as amended in 2000 & 2003
- The Battery (Management and Handling) Rules, 2001 as amended
- The Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 as amended
- The Plastic Waste (Management and Handling) Rules, 2011
- e-Waste (Management & Handling) Rules, 2011

## **2. FUNCTIONS**

The Section 17 of both Water (Prevention and Control of Pollution) Act, 1974 and the Air

(Prevention and Control of Pollution) Act, 1981 have declared the legally mandated functions of the State Pollution Control Board, which are summarized below:

- To plan a comprehensive programme for the prevention, control and abatement of water and air pollution.
- To inspect sewage and trade effluent treatment plants for their effectiveness and review plans, specifications for corrective measures.
- To inspect industrial plants or manufacturing process, any control equipment and to give directions to take steps for the prevention, control or abatement of air pollution.
- To lay down, modify or annul effluent standards for the sewage and trade effluents and for the emission of air pollutants into the atmosphere from industrial plants and automobiles or for the discharge of any air pollutant into the atmosphere from any other

source.

- To collect samples of sewage and trade effluents and emissions of air pollutants and to analyze the same for specific parameters.
- To advise the State Government on any matter concerning the prevention, control and abatement of water and air pollution.
- To perform such other functions as may be prescribed by the State Government and Central Pollution Control Board.

### **3. ORGANISATIONAL SET UP**

TNPCB has established its organization structure with a three-tier system consisting of head-office at Chennai, Regional offices and District offices with a total staff strength of 747. There are 5 Regional offices headed by Joint Chief Environmental Engineers, 34 district offices of which 32 offices are headed by District

Environmental Engineers and 2 offices by Assistant Environmental Engineers (Theni and Nilgiris district). Two flying squads headed by Environmental Engineers are also functioning at Erode and Tiruppur. To assist the Board for effective monitoring of the water and air quality, 5 Advanced Environmental Laboratories and 10 District Environmental Laboratories are established. These laboratories carry out analysis of samples of water, sewage, trade effluents, emissions and hazardous wastes.

#### **4. ISSUE OF CONSENT TO INDUSTRIES**

Industries are required to obtain consent for discharge of sewage / trade effluent into any stream or well or into sewer or land under the Water (Prevention and Control of Pollution) Act, 1974 and to operate the plant in air pollution control area of entire Tamil Nadu under the Air (Prevention and Control of Pollution) Act, 1981 from the Tamil Nadu Pollution Control Board. For the effective

monitoring of Industries they are categorized as, Red, Orange, and Green according to their pollution potential and are also classified as Large, Medium and Small scale based on their capitals and they are monitored periodically by the Board. Industries are classified as Industries with GFA less than Rs. 5 crores is Small scale, Rs 5 to 10 crores is Medium scale and GFA more than Rs. 10 crores is Large scale.

The consent is issued to industries in two stages. In the first stage 'Consent to Establish' is issued for establishing the industry by considering the impact on environment under the Acts. In the second stage, 'Consent to Operate' is issued for commissioning the plant for production, on compliance of conditions as approved in the 'Consent to Establish'. In order to expedite clearance of consent applications, the Board has delegated powers to the Regional and District Officers for issue of consent considering the category and size of the project. The Environmental

Engineers of the Board inspect the industries under their jurisdiction periodically to assess the adequacy of pollution control measures adopted by the industries to treat sewage, trade effluents and emissions and to monitor their performance. They also investigate complaints of pollution received from the public and other, organizations.

During the financial year 2014-15, the Board has issued 'Consent to Establish' to 1452 industries and 'Consent to Operate' to 2166 industries under the Water (Prevention and Control of Pollution) Act, 1974 as amended and the Air (Prevention and Control of Pollution) Act, 1981 as amended. During the financial year 2014-15, ambient air quality surveys were conducted in 1081 industries and 5218 samples of sewage and 17421 samples of trade effluents were collected for analysis.

The Board vide its proceedings dated 25.2.2004 have fixed norms for inspection and



sample collection from industries as follows:

<b>Type of Industry</b>	<b>Category</b>	<b>Inspection</b>	<b>Sample Collection</b>
Large	Red	Once in 3 months	Once in a month
	Orange	Once in 6 months	Once in 4 months
	Green	Once in 2 years	----
Medium	Red	Once in 4 months	Once in 3 months
	Orange	Once in 6 months	Once in 6 months
	Green	Once in 2 years	----
Small	Red	Once in a year	Once in 3-6 months
	Orange	Once in 2 years	Once in 6 months
	Green	Once in 2 years	----
17 Categories of Industries		Once in a month	Once in a month

## **5. ONLINE CONSENT MANAGEMENT AND MONITORING SYSTEM (OCMMS)**

TNPCB has provided the facility of Online Consent Management and Monitoring System (OCMMS). OCMMS is a web based generic application software package for automating the workflow associated with consent management and monitoring which is one of the basic functions of the Board. This system allows the industries for online submission of application for Consent to Establish / Consent to Operate / Renewal of Consent, uploading of documents, online payment of consent fees, online submission of clarification and for knowing the status of application. The payment of consent fees by online is to be made functional shortly.

This system allows to carry out the consent management processes such as application scrutiny, raise inspection, raise clarification, submit inspection report, prepare consent order and

forward consent order through online. It helps for online monitoring of the processing of application. From 20.1.2015 onwards, the applications are accepted only through OCMMS. In order to facilitate the industries to apply online through OCMMS, CARE CENTRE has been established in all the 34 district offices.

## **6. STATUS OF COMMON EFFLUENT TREATMENT PLANTS**

TNPCB plays a supportive role towards the establishment of Common Effluent Treatment Plants (CETPs) for clusters of small-scale industries in various parts of the State. Small-scale industries often express financial difficulties, lack of space and other reasons which prevent them from putting up the required individual Effluent Treatment Plant (ETP). The Board assists in the technical scrutiny of

the plan proposals for the CETPs. CETPs are established in the following sectors:-

Tanneries	13 Schemes
Textile Bleaching & Dyeing Units	30 Schemes
Hotels & Lodges	1 Scheme

Out of 13 CETP schemes established for tanneries, 11 CETPs are under operation with Zero Liquid Discharge (ZLD) system. The remaining two CETPs for tanneries have opted for dilution of tannery effluent with sewage to achieve the standards prescribed by the Board.

Out of 30 CETPs established for textile dyeing processing units, 19 CETPs have implemented the ZLD system. The remaining 11 CETPs are closed in view of orders of Hon'ble High Court and their inability to achieve ZLD standards. The one CETP provided for treatment of wastewater from hotels and lodges is under operation in Kodaikanal hills.

## **7. HAZARDOUS WASTE MANAGEMENT**

TNPCB has identified and listed out 3,427 units generating hazardous wastes under the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 as on 31.12.2014. In Tamil Nadu about 6.18 lakhs tonnes of hazardous waste is annually generated in which 2.65 lakhs of tonnes is land fillable, 3.16 lakhs tonnes is recyclable and 0.37 lakhs tonnes is incinerable. The Board is taking effective steps in handling hazardous wastes management, its treatment and disposal in an environmentally safe manner.

A common hazardous waste Treatment Storage and Disposal Facility (TSDF) is established at SIPCOT Industrial Estate, Gummidipoondi and it is in operation. Action is being taken to establish common hazardous waste treatment storage and disposal facility in other places.

Tamil Nadu has taken pioneering efforts to utilize the hazardous waste generated from Common Effluent Treatment Plants (CETP) of textile processing units as fuel/raw material for co-processing in the cement factories. A detailed study and evaluation was done to establish the compatibility of textile hazardous waste that can be used in co-processing in the cement factories. Similarly, such trials are being taken-up for using hazardous waste generated from tannery CETPs in co-processing and incineration also in the cement factories.

## **8. BIOMEDICAL WASTE MANAGEMENT**

The wastes generated from Health Care Centres are hazardous, toxic and even lethal because of their potentially infection nature. For proper handling and disposal of bio-medical waste, the Ministry of Environment, Forests and Climate Change, Government of India have notified the Biomedical Waste (Management & Handling) Rules,

1998. As per the Rules authorization of the State Pollution Control Board (SPCB) is required for handling of biomedical wastes generated. There are 12 Common Biomedical Waste Treatment Facilities in Tamil Nadu out of which 11 are in operation and one at Uthukottai in Tiruvallur District is under construction. On an average, nearly 39 tonnes per day of Biomedical Waste is handled by the CBMWTF facility.

The Board has so far authorized 5679 Private and Government hospitals in the State under the rules. All these hospitals have made agreement with the Common Biomedical Waste Treatment Facilities (CBMWTF) for the collection, treatment and scientific disposal of the biomedical waste. The CBMWTF consists of autoclave, shredder, incinerator and secured land fill facilities.

## **9. PLASTIC WASTE MANAGEMENT**

The Ministry of Environment, Forests and Climate Change, Government of India, New Delhi

notified “The Plastic Waste (Management and Handling) Rules, 2011” vide Notification dated 4.2.2011. As per the Notification, no person shall manufacture, stock, distribute or sell any carry bag made of virgin or recycled or compostable plastic, which is less than 40 microns in thickness. Plastic carry bags, multilayered plastic pouch (or) sachet units, recycled plastic carry bags shall obtain registration certificate from the State Pollution Control Board. The role of State Pollution Control Board is to enforce the provisions of these rules which are related to authorization, manufacture, recycling and disposal of plastic wastes.

In order to implement the Plastic Waste (Management & Handling) Rules, 2011 effectively in all the Districts of Tamil Nadu, a drive was carried out on 24.9.2014, under the chairmanship of District Collector, to ensure that the traders do not sell the banned plastic carry bags and for imposing fine on defaulters.



The Board has addressed all District Collectors of Tamil Nadu all Municipal, Corporation Commissioners and the Director of Municipal Administration and Director of Town Panchayat to instruct the local bodies in their respective jurisdiction to prohibit / ban stocking, selling and use of any carry bag (having handle or non-handle) less than 40 micron thickness plastic material and the local bodies shall penalize and impose a fine of Rs. 1.0 lakh on those who stock / sell such carry bags and the material stocked or sold shall be confiscated.

The Board has sanctioned to provide funding of Rs. 50,000/- (Rupees Fifty Thousand Only) every year to each District Collector of Tamil Nadu to conduct awareness programme to the school children and public on avoidance of throwaway plastic.

## **10. E- WASTE MANAGEMENT**

Electronic waste or e-waste comprises of old electrical and electronic appliances such as computers, laptops, TVs, DVD players, refrigerators, mobile phones, MP3 players, etc., which have been disposed of by their users. E-waste contains many hazardous constituents that may negatively impact the environment and affect human health. E-Waste (Management & Handling) Rules, 2011 was published by Ministry of Environment, Forests and Climate Change, Government of India in Notification dated 12.05.2011 and is effective from 1.5.2012 in Tamil Nadu. As per the Rules, State Pollution Control Board has to issue authorisation for the producer of electrical and electronic equipments, e-waste recyclers, e-waste dismantlers and e-waste collection centres. The Board has issued registration to 18 units (dismantlers 12 & recyclers 6) and authorization for 28 units (producers 2, collection centres 8, dismantlers 12, recyclers 6)

under the e-Waste (Management & Handling) Rules, 2011.

## **11. MUNICIPAL SOLID WASTE MANAGEMENT**

The Ministry of Environment and Forests, Government of India, New Delhi has notified the Municipal Solid Wastes (Management & Handling) Rules, 2000. As per the rules, the municipal authorities are responsible for the collection, treatment and disposal of municipal solid wastes. The Board is the monitoring authority under the said rules and is responsible for granting authorization to municipal authorities for the development and operation of Municipal Solid Wastes (MSW) treatment and disposal facilities. The Board has issued authorisation to 5 Corporations, 39 Municipalities and 69 Town Panchayats for composting of municipal solid waste and setting up of waste processing facility. The Board is advocating the concept of waste segregation at

source, reduction, recycle and reuse to avoid any environmental issues during handling.

## 12. WATER QUALITY MONITORING

TNPCB is monitoring the water quality of major rivers and its tributaries under the Monitoring of Indian National Aquatic Resources (MINARS) programme and under the Global Environmental Monitoring System (GEMS) as detailed below:-

<b>SI.No.</b>	<b>Water Bodies</b>	<b>No.of stations</b>	<b>Suitability of Water quality</b>
1	Cauvery and its tributaries	33	Outdoor bathing, drinking water source with conventional treatment followed by disinfection and also for fish culture and wild life propagation.
2	Tamirabarani	12	Outdoor bathing, drinking water source with conventional

			treatment followed by disinfection
3	Palar	1	Drinking water source with conventional treatment followed by disinfection.
4	Vaigai	1	Drinking water with conventional treatment followed by disinfection and fish culture and wild life propagation
5	Lakes	8	Drinking water with conventional treatment followed by disinfection and fish culture and wild life propagation

## **12.1 ONLINE WATER QUALITY MONITORING STATIONS**

In order to monitor the water quality of river Noyyal and Kalingarayan canal on continuous basis in the textile industrial belt, TNPCB has installed online continuous water quality monitors at three locations each in Noyyal river and Kalingarayan canal. These stations monitors pH, total dissolved solids, dissolved oxygen on continuous basis. These stations are functioning from October, 2014.

## **13. AIR QUALITY MONITORING**

In the major cities of the State, the quality of the ambient air is being affected by emissions from the industries and from the ever increasing vehicular population. As per the provision of Air (Prevention and Control of Pollution) Act, 1981, the entire state of Tamil Nadu has been declared as an air pollution control area. For monitoring air quality, the following ambient air quality monitoring stations are being operated in Tamil Nadu under National

Air Quality Monitoring Programme (NAMP) by installing high volume samplers.

<b>Sl. No.</b>	<b>City/Town</b>	<b>Sample Location</b>	<b>Land Use</b>
1	Chennai	Kathivakkam	Industrial zone
		Manali	Industrial zone
		Thiruvottiyur	Industrial zone
		Kilpauk	Commercial (traffic intersection)
		Thiyagaraya Nagar	Commercial (traffic intersection)
		Nungambakkam	Commercial (traffic intersection)
		Anna Nagar	Residential zone
		Adyar	Residential zone

2	Coimbatore	District Collector Office	Mixed zone
		Ponnaiyarajapuram	Residential zone
		SIDCO building	Industrial zone
3	Madurai	Highways Project building	Residential zone
		Susee Cars and Trucks Co Ltd	Industrial zone
		Madurai Corporation office (south)	Mixed zone
4	Salem	Sowdeswari College	Mixed zone
5	Trichy	Gandhi Market	Commercial zone
		Main Guard Gate	Traffic intersection
		Bishop Heber College	Mixed zone
		Golden rock	Residential zone
		Central Bas stand	Traffic intersection
6	Thoothu kudi	Raja Agencies	Industrial zone
		SIPCOT	Industrial zone
		AVM Building	Mixed zone



7	Mettur	Raman Nagar	Residential zone
		SIDCO	Industrial zone
8	Cuddalore	Echankadu village	Residential zone
		District Environmental Engineer's Office	Commercial zone
		SIPCOT	Industrial zone

All the above stations are functioning on 24 hours basis, twice a week. The samples collected from NAMP stations are analysed for the Respirable Suspended Particulate Matter (RSPM) below 10 microns and gaseous pollutants such as oxides of Sulphur and Nitrogen. During the period 2014-15, the average values of oxides of Sulphur and Nitrogen were found to be well within the prescribed standards for Ambient Air in all the stations. RSPM exceeded in a few places which is mainly due to vehicular movement and construction activities.

### **13.1 CONTINUOUS AMBIENT AIR QUALITY MONITORING STATIONS**

In order to monitor the ambient air quality on continuous basis, the Board has installed six Continuous Ambient Air Quality Monitoring (CAAQM) stations. Four stations are installed at Chennai (viz) Koyambedu, Royapuram, Perungudi (Sai Nagar), Kodungaiyur, one station each at SIPCOT Gummidipoondi and SIPCOT Thoothukudi. All the stations are in operation. All monitoring stations monitor PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>2</sub>, NH<sub>3</sub>, O<sub>3</sub> on continuous basis.

### **14 CARE AIR CENTRE**

In order to monitor both source emissions and ambient air quality on a real time basis from the industries located in the State, TNPCB has established Care Air Centre for Accessing Real Time Air (Quality) Information Report at the Head office, Guindy, Chennai. This is a continuous real time emission monitoring system of connected

industries belonging to Red category, which is functioning on 24 X 7 basis. This is the first of its kind in the whole country. When the emission levels exceed the norms, the inbuilt system will inform the concerned industry and the District Environmental Engineer/Member Secretary through automated SMS & E.Mail for remedial action immediately. So far, 315 industries are connected to Care Air Centre for online monitoring. Out of 315 industries, 255 industries are connected to Care Air Centre to monitor stack emission, 78 industries to monitor ambient air quality and 118 industries to monitor the quality of trade effluent.

## **15. OTHER ACTIVITIES OF THE BOARD**

### **15.1 CLEANER TECHNOLOGIES**

TNPCB has been concerned in promoting a holistic approach to environment protection by enforcing adoption of cleaner technology rather than mere end-of-pipe treatment. Several industrial

units in Tamil Nadu have switched over to cleaner technologies such as;

- Adoption of membrane cell process replacing mercury cell process in caustic soda manufacturing
- Adoption of dry process instead of wet process to reduce air pollution in cement factories
- Utilization of 25 to 30% of fly ash in Portland Pozzolona Cement (PPC) manufacturing
- Adoption of double conversion and double absorption technology in sulphuric acid manufacturing
- Gas carburizing instead of cyanide salt in heat treatment and cyanide free electroplating.
- Pulp and paper industries are encouraged to go in for elemental chlorine free bleaching to reduce the formation of organo-chlorides including dioxins.

## **15.2 TECHNOLOGY DEMONSTRATION CENTER**

TNPCB has established a Technology Demonstration Center at IIT, Madras, and have entered into an Memorandum of Understanding (MOU) on 17.04.2013. A sum of Rs.5 crores have been allocated for this purpose. The Technology Demonstration Center has conducted treatability studies for rice mills, sago and small scale textile processing units. The Center has conducted awareness programme on Fire Management on waste landfill site on 02.05.2014 for the Municipal Authorities, Fire Department and TNPCB officials. The Center has also conducted technical workshop for sago industries on 12.5.2014 and 13.5.2014 for better understanding of the characteristics of sago waste water, anaerobic treatment, biogas generation, optimizing the process parameters to enhance the composition and quantity of biogas generated. Further work in this regard is continuing. In July 2013, there was an incident occurred in

leakage of petroleum oil pipeline of an Oil Company in Tondiarpet, North Chennai. This Technology Demonstration Center has carried out a detailed field study and made recommendations for groundwater and soil remediation. At present remediation work is in progress.

### **15.3 MASSIVE TREE PLANTING PROGRAMME**

TNPCB has supported the Forests Department for Massive Tree Planting Programme by planting 64 lakhs seedlings, 65 lakhs seedling and 66 lakhs seedlings during the year 2012, 2013 and 2014 respectively. Hence, the Board has granted fund of Rs 28.84 crores, Rs. 20 crores and 17.99 crores for the planting programme during the year 2012, 2013 and 2014 respectively. For the current year, the Board decided to fund Rs.30.00 crores to support the Forests Department for planting 67 lakhs seedlings under massive tree plantation programme and released a sum of Rs. 6.832 crores as 1<sup>st</sup> installment on 23.04.2015.

## **15.4 ENVIRONMENTAL CAMPAIGN AND PUBLIC PARTICIPATION**

Environmental campaign has become an important tool to achieve effective compliance of various pollution control norms. Large scale public involvement can strengthen environment movements for the sake of implementation of environment-friendly rules and regulations by the government machinery in much better way to have the most desired results. Towards this end, the TNPCB has conducted various types of environmental awareness programmes every year on the following occasions.

- **Vinayagar Chathurthi Festival:-** Awareness programmes are conducted through the Collectors in all the district headquarters and towns not to use plaster of paris and paints to make the Vinayagar idols. The Board also monitors water quality of the identified water bodies before and after immersion of idols in

specified locations.

- **Deepavali Festival:-** Awareness programmes are conducted not to burst crackers from 10 PM to 6 AM and also not to burst crackers creating sound more than 125 decibel (average). The Board also monitors ambient air quality and noise level in Chennai and other cities viz., Trichy, Coimbatore, Madurai, Tirunelveli, Vellore, Salem, Hosur, Tiruppur, Dindigul and Cuddalore.
- **Bhogi Festival:-** Board conducts awareness programmes not to burn the waste materials such waste tyres, tubes, plastic materials, cloths etc in open places. In Chennai city, the Board conducts ambient air quality monitoring during pre-bhogi and bhogi festival days in 15 locations.

## **15.5 ENVIRONMENTAL TRAINING INSTITUTE**

Environmental Training Institute (ETI) established in the year 1994 is an organizational



wing of the TNPCB. The main objective of the training institute is to impart training to staff of the Pollution Control Board, representatives of Industry and non-governmental organizations. During the year 2014-15, the ETI has conducted 14 training programmes, in which 1268 participants have been trained. Training programme includes

- Municipal solid waste dumpsite fire management and monitoring
- Training to Sago Industries
- Training on Bio-Medical Waste Management to Medical college students
- Training to Deputy Collectors on TNPCB activities
- Seminar on Water Pollution and Treatment
- Training programme on preservation of ozone layer
- Environmental laws
- Environmental statement

## **15.6 OFFICE BUILDING CONSTRUCTIONS**

TNPCB is having own buildings for 10 District offices out of 34 District offices. The remaining 24 District offices are functioning in rented buildings. TNPCB had initiated action for construction of new buildings for 12 District offices. Out of this, construction is completed for 7 buildings (i.e.) at Sivagangai, Dindigul, Namakkal, Virudhunagar, Thanjavur, Villupuram and Pudukottai. In the remaining 5 places construction is in progress (ie) at Coimbatore (North), Coimbatore (South), Oragadam (Kancheepuram District), Erode, and Vaniyambadi.

## **15.7 GREEN AWARDS**

As per the Announcement made by the Hon'ble Minister for Environment during the year 2011-12, Green awards are given every year to Industries who have adopted best practices in achieving best environmental quality in emission,

discharge of waste water, solid and hazardous waste management and Green belt development. Similarly from the year 2011-12, Green Awards are also given to the District Collectors who have taken action for the betterment of environment in their districts.

## **15.8 APPELLATE AUTHORITY**

Hon'ble Appellate Authority has been constituted under the Chairmanship of a Hon'ble Justice (Retd.), High Court of Madras with two technical members as per the G.O.Ms.No.66, Environment and Forests Departments, dated 7.5.2013. It is functioning at No.51, Gangadeeswarar Koil Street, Purasaivakkam, Chennai-86. The Authority entertains and disposes of the Appeals preferred by the industries against the order of the TNPCB issued under Section 25/26 and 27 of Water (Prevention and Control of Pollution) Act, 1974, as amended and any orders

issued under Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987.

During the year 2013-2014, 58 Appeals have been filed by aggrieved industries. Out of which 25 cases have been disposed as on 31.03.2014 and 33 cases are pending with the Appellate Authority. Similarly, for the year 2014-2015, 50 Appeals have been filed, out of which 20 cases have been disposed during the year 2014-2015. As on 31.3.2015, 63 cases are under trial.

## **15.9 NATIONAL GREEN TRIBUNAL**

The National Green Tribunal (NGT) was established at New Delhi on 18.10.2010, for effective and expeditious disposal of cases relating to Environmental Protection and Forest Conservation. Any person aggrieved by an order or decision of the Board and /Appellate Authority order issued under Section 28, 29 and 33A of the Water (Prevention and Control of Pollution) Act, 1974, under Section 13 of Water (Prevention and Control

of Pollution) Cess Act, 1977, under Section 31 of the Air (Prevention and Control of Pollution) Act, 1981 and under Section 5 of the Environmental (Protection) Act, 1986 may apply to NGT within 30 days of the order issued by the Board / Appellate Authority .

National Green Tribunal (NGT) for Southern Zone was constituted and functioning at Chennai. TNPCB has facilitated for the establishment of NGT Southern Zone. The Board has also facilitated the establishment of the second bench of the NGT in the Southern Zone at Chennai. The second bench is functioning from 23.3.2015 onwards.

## **15.10 LIBRARY**

TNPCB Library was established during the year 1989. At present, it has a collection of about 11,421 books and reports. The Library subscribes to 51 Journals (English & Tamil), 10 Newspapers

and 11 Magazines related to environment. This is one of its kind, which has large collections of books and journals on Environment. Membership is open to all the stake holders in the environmental sector. For automation of library, Lib Sys software is installed and it is in use.

## **16. HIGHLIGHTS OF PERFORMANCE**

TNPCB has always been proactive in performing various functions as a regulatory authority. The Board has promoted the State of the Art Technology not only for technical issues but strived for modernization in administration also. It has achieved many 'Firsts' in India in various initiatives. The Board has always set an example for the other State Pollution Control Boards in the country in helping the small scale sector to establish Common Effluent Treatment Plants. The Board is the first in the country in implementing zero liquid discharge (ZLD) concepts in Textile and Tannery

sector. The Board is the first one in the country to establish the CARE AIR Centre for online continuous monitoring of air emissions. So far 315 industries have been connected online and are being monitored round the clock. TNPCB is also the first Board in the country to establish 11 Common Biomedical Waste Treatment Facilities for treating and disposal of bio-medical waste. In order to prevent the pollution, ensure better compliance of Environmental laws in the State, and to ensure conducive atmosphere for a better living, the Board has been in constant interaction with all the stake holders by way of meetings, workshops, awareness programmes, training etc.

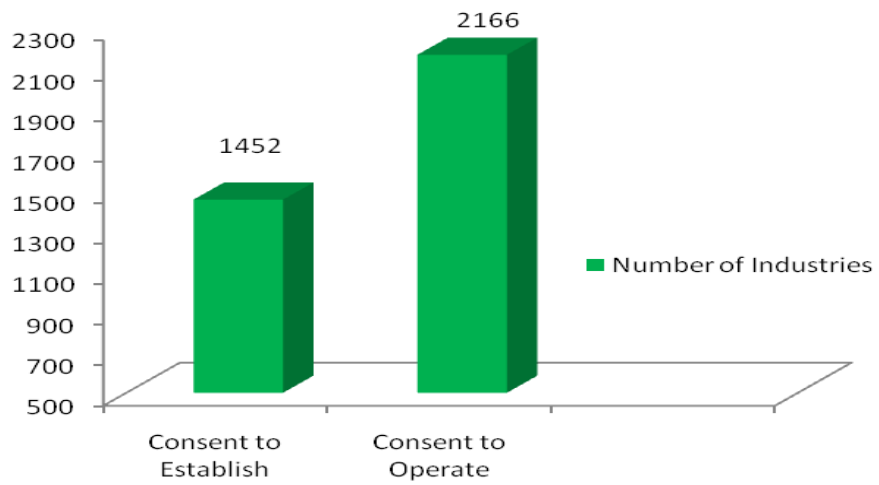
In order to monitor the water quality of important water bodies on continuous basis, TNPCB has installed online continuous monitors to monitor the water quality. TNPCB has launched Online Consent Management & Monitoring System for online submission of application for consent, processing and issue of consent which is a mile

stone in e-governance. TNPCB is taking all efforts to protect the environment by way of prevention and control of pollution from industrial activities.

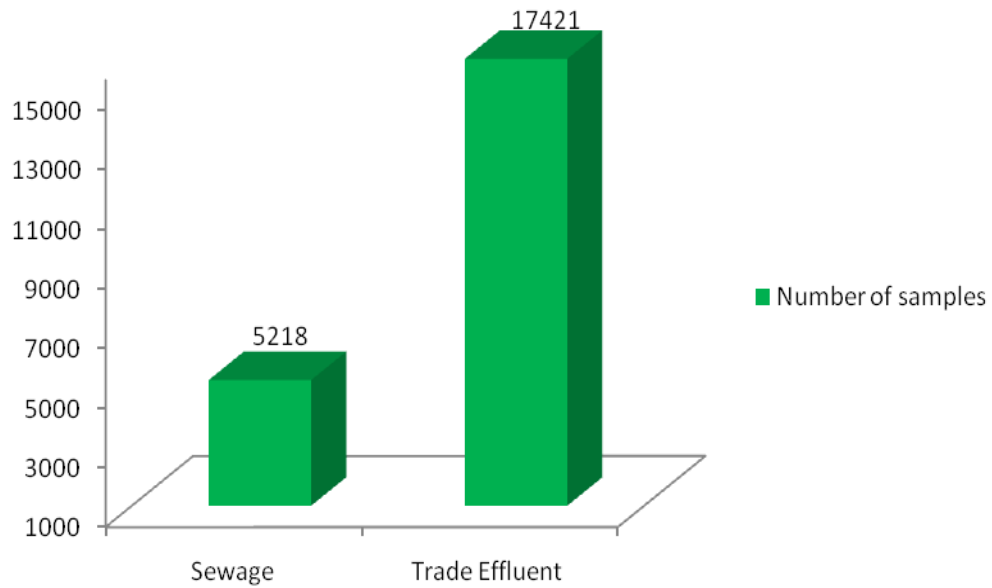
**Thoppu N.D.Venkatachalam**

**Minister - Environment**

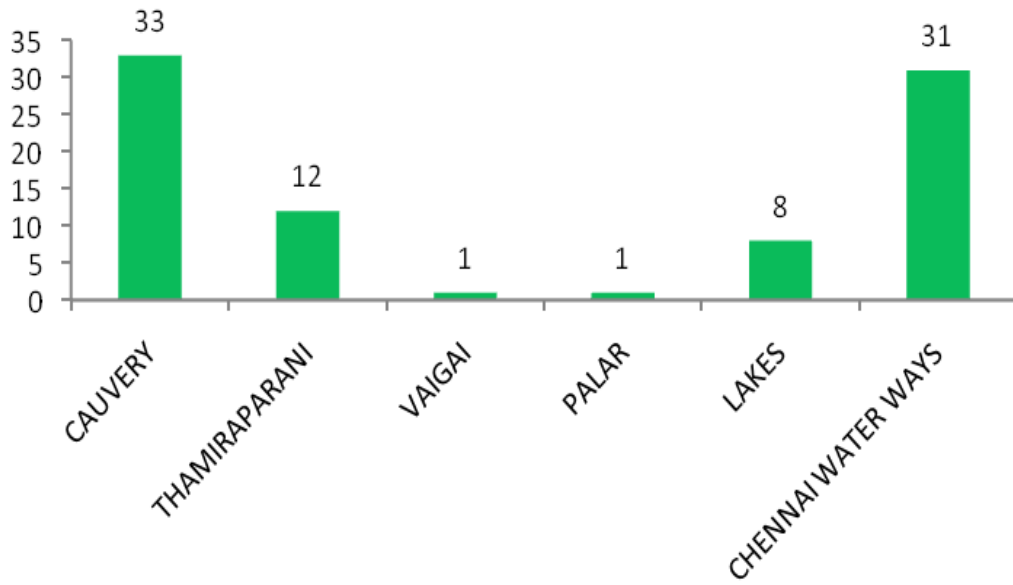




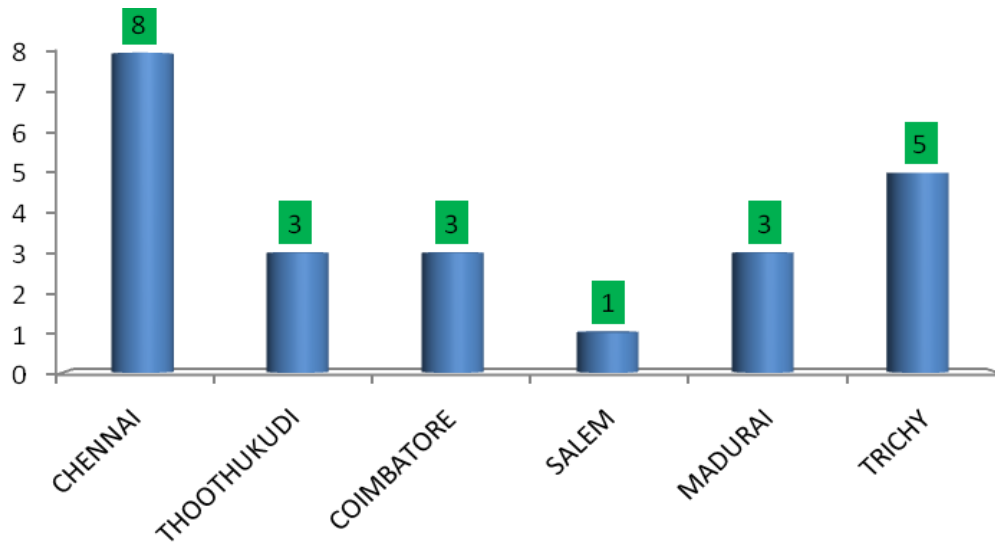
**Consent Issued Water & Air Acts in the year of 2014-15**



**Samples Collected and Analysed in the year of 2014-15**



**Water Quality Monitoring Stations**



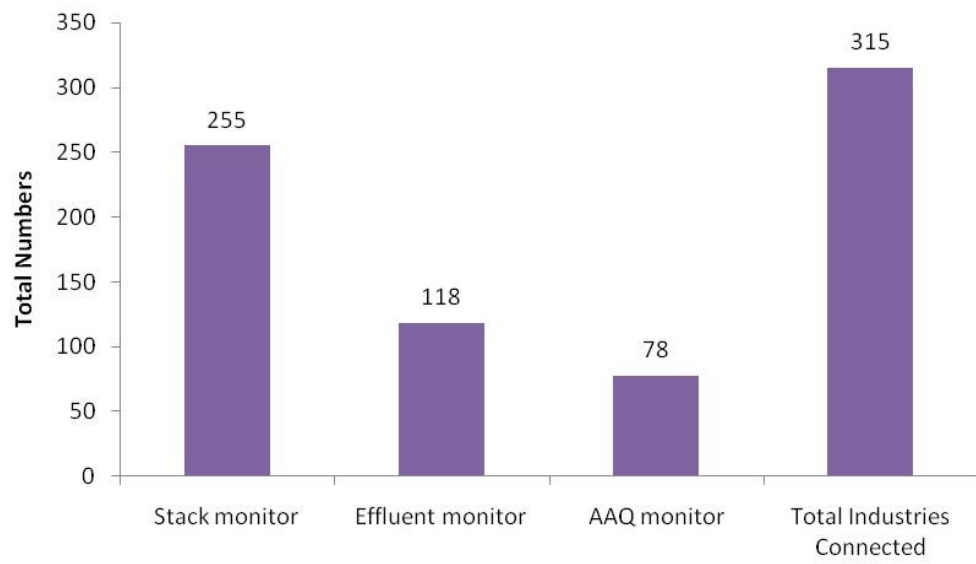
**Ambient Air Quality Monitoring Stations**



**Continuous Air Monitoring At Perungudi**



**Continuous Air Monitoring Station At Perungudi**



### CARE AIR Centre Connectivity



CARE AIR Centre



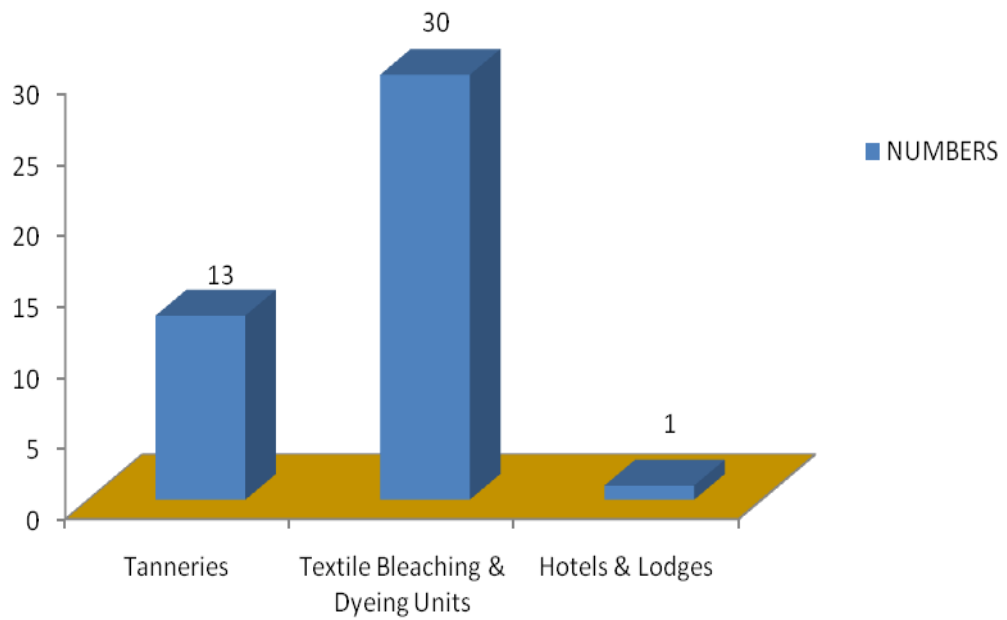
**Atomic Absorption Spectrometer**



**Uv-Spectrophotometer**



**Sewage Treatment Plant in Thermal Power Station**



**CETPs in Tamil Nadu**



**Biological Treatment Unit in Common Effluent Treatment Plant**



**Reverse Osmosis Plant**





**Zero Liquid Discharge System**



**Officials from Ministry of Environment & Forests, Government of Bangladesh visiting the CETP (ZLD System) for textile processing units in Tiruppur**



**Hazardous Waste Incinerator**



**Hazardous waste Land Fill Facility**



**Common Bio Medical waste Incinerator**



**Environmental Training Institute – Training session**



**Awareness campaign during Bhogi Festival**



**Rain water Harvesting in Automobile Company**