

# ENVIRONMENT AND FORESTS DEPARTMENT

# POLICY NOTE

# **DEMAND No. 15**

# ENVIRONMENT

# 2016-2017

# K.C.KARUPPANAN MINISTER FOR ENVIRONMENT

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# **DEPARTMENT OF ENVIRONMENT**

Environment is the summation of air, water and land and their interactions with the living organisms including human being. It includes all the physical and biological surroundings and their synergy. Activities of Human society plays a role in dominant degrading the natural environment, which in turn negatively affects life on this planet. All human actions in this modern world have the potential to directly influence the ecosystem as a whole. Several initiatives have been taken up by the Government of Tamil Nadu for pollution abatement in rivers and lakes, eco restoration of water bodies, besides environmental consciousness promotina among the school children and general public. The State government endeavours for sustainable environment and healthy resilient ecosystems in perpetuity for the social, physical, cultural, biological and economic well being of the people.

While Tamil Nadu focuses on fostering 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. Theme 8 in Vision Tamil Nadu 2023 document stresses upon the fact that 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 that there will be only environment, minimal impact on the 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 of Cauvery, Vaigai and Tamiraparani and in the waterways of Chennai City. The National Lake Conservation Programme, Management of Coastal Regulation Zone and all other significant 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 which includes three Deputy Directors, Assistant Conservator of Forests, Assistant Environmental Engineer, Accounts Officer, Sociologist, Forest Ranger, two Assistant Engineers and 22 ministerial staff.

# 2.1 Functions of the Department

- Climate Change Adaptation and Mitigation initiatives.
- Coastal Regulation Zone management.
- Preparation of Environmental Management Plans for towns.
- Environment education and awareness in schools and colleges through Non Governmental Organizations (NGOs), Eco-Clubs and National Green Corps (NGC).
- Synergy with Universities/Research Institutes to build capacity for research and training.

# 3. Tamil Nadu State Action Plan on Climate Change (TNSAPCC)

Climate Change is impacting the lives of people in all spheres and is identified as major threat to food and livelihood security across the globe.

The approach of the Tamil Nadu State Action Plan on Climate Change is to create and define an overarching climate response framework at the level of the state government to reduce vulnerability; minimize hazards and exposure; pool, transfer and share risks; prepare and respond effectively; and increase capacity to cope with unforeseen events, while articulating flexible sector specific response strategies and actions and keeping in mind the overall Vision Tamil Nadu 2023.

Tamil Nadu State Action Plan on Climate Change (TNSAPCC) was endorsed on 31<sup>st</sup>March 2015 by Ministry of Environment, Forest and Climate Change, Government of India. The seven Vulnerable Sectors identified in the TNSAPCC are:

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

The Department of Environment is the Nodal Agency for the implementation of TNSAPCC. The strategies and action plans indicated in TNSAPCC are being implemented by concerned line departments as a part of Adaptation and Mitigation measures for the State. Accordingly, the Department of Environment has submitted proposals under the National Adaptation Fund for Climate Change (NAFCC) and the Green Climate Fund (GCF) in consultation with Department for International Development (DFID) and the National Bank for Agriculture and Rural Development (NABARD).

Under National Adaptation Fund for Climate Change, Ministry of Environment, Forest and Climate Change, Government of India has sanctioned Rs.24.74 crores for the implementation of the project titled "Management and Rehabilitation of Coastal Habitats and Biodiversity for Climate Change Adaptation and Sustainable Livelihood in Gulf of Mannar". Similarly, the concerned line departments are in the process of submitting proposals for consideration under NAFCC and GCF.

The Conference of Parties-21 (CoP-21) of the United Nations Framework Convention on Climate Change (UNFCC) was held at Paris, in December 2015. The Ministry of Environment, Forest and Climate Change, Government of India had set up a pavilion to showcase its activities, achievements and contribution through the National Action Plan on Climate Change (NAPCC). Tamil Nadu was the only Coastal State nominated by Ministry of Environment, Forest and Climate Change, Government of India to showcase the State Government's strategy and action plan on Risks, Vulnerabilities and Resilience to Climate Change with special reference to adaptation measures in coastal ecosystems.

A sum of Rs.10 lakhs has been allocated for establishing Climate Change Cell in the Department of Environment during 2014-15 under Part-II Scheme and the Cell is functioning. The activities of the Cell are to find ways to develop modalities in identified sectors for the implementation of the State Action Plan on Climate Change (SAPCC). Further, the Cell will involve itself actively in capacity amongst building different stakeholders ranging from farmers, fishermen, public, decision policy planners. makers. implementers. administrators etc., with information on the latest climate projections and Adaptation and change Mitigation strategies adopted worldwide.

### 4. Integrated Coastal Zone Management Plan (ICZMP)

An Integrated Coastal Zone Management Plan (ICZMP) for the State, has been prepared with the objective of better co-ordination for development along the coastal stretch of Tamil Nadu, targeted socio-economic improvement for its population, while keeping natural resources and the environment healthy and capable of sustaining future generation and also strengthening responses under emergency situations caused by extreme weather.

Based on the ICZMP, a concept note has been sent to Ministry of Environment, Forest and Climate Change, Government of India (MoEF&CC, GoI) to consider the implementation of the ICZM Project under Phase-II at a cost of Rs.697.68 crores in Tamil Nadu. The MoEF&CC, GoI has accepted the proposals and requested a detailed project report (DPR) as a preliminary step for the project implementation. The Base Document on the ICZMP has been prepared in consultation with the National Centre for Sustainable

Coastal Management (NCSCM) at Chennai and submitted to MoEF&CC, Gol for approval.

#### 5. Eco- clubs

To provide exposure to children regarding the environmental issues and problems facing the society they live in and make them think and evolve solutions, State funded Eco-clubs were formed at school level. The Eco-clubs are first of its kind in India and often cited as a best practice. The students of Eco-clubs are engaged in various environmental awareness programmes like organizing rallies, human chains, seminars, debates, tree planting, campus cleaning, rainwater harvesting, vermicomposting etc. Totally, 11,469 Eco-clubs are functioning in Tamil Nadu.

## 6. National Green Corps (NGC)

During the year 2002, the National Green Corps programme was launched in the State with the support from Ministry of Environment, Forest & Climate Change Government of India (MoEF&CC, Gol). The main objective of the programme is to sensitize students about environment and related issues, involving students in action based programmes such as tree planting, environmental awareness rallies, vermi-composting, enviro-expo, enviro competitions, anti plastic campaign, cultural programmes, nature camps etc. The NGCs are celebrating at least six "Green Days" in a year in their respective schools.

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

# 7. 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 protecting the environment and promoting clean energy in the State.

This fund is utilized both for promotional and based activities and covers activities like project greening of Tamil Nadu through planting of trees outside the forest areas, initiatives and interventions in the field of renewable energy and prevention of environmental by involving government departments, degradation public sector undertakings. non-governmental organizations, voluntary organizations, self-help groups, tree grower societies, community based organizations, educational and research institutions and interested individuals.

### 8. Eco-Restoration activities

Wetlands and water bodies are an important feature of the earth's biosphere. They are not only a significant source of precious water but often provide valuable habitats to plants and animals and enhance the aesthetic beauty of the landscape. The different problems encountered in wetlands include excessive influx of sediments from the lake catchment, discharge of untreated or partially treated sewage, industrial waste water and solid waste disposal, entry of diffused source nutrients from agriculture and forestry, improper

management of storm water combined with over abstraction and finally due to over exploitation of lakes. The restoration and conservation of the lakes is for achieving the desired water quality besides improving the biodiversity conservation and preserving the eco-system by carrying out the restoration activities like de-silting, diversion of sewage entering into lake etc.

Some of the illustrations of the eco-restoration activities are as follows:

- A Sport, Fishing cum Eco-Park at Chetpet in Chennai has been established at a cost of Rs.42.00 crores.
- A sum of Rs.33.00 crores was released as first phase for rehabilitation and restoration of Madhavaram (Rettai Eri), Ambattur and Korattur wetland complex in Thiruvallur district and the works are under progress.
- A sum of Rs.4.50 crores has been released to Directorate of Town Panchayat for implementing eco-restoration works in Ayyarkulam, Kuyavankuttai and Sithampatti tank in Perundurai in Erode district and these works are in progress.

- A sum of Rs.3.00 crores has been released to District Collector, Erode for eco-restoration at Kuttaithairpalayam tank in Perode Panchayat and Kambatheeswaran tank in Punchaikalamangalam in Erode district and these works are in progress.
- A sum of Rs.4.00 crores has been released to Public Works Department, as first phase during 2014-15 and Rs.2.41 crores during 2015-16 for restoration of Sarkarperiyapalayam Tank in Avinashi Taluk in Tiruppur district and the works are in progress.

# 9. Coastal Zone Management (CZM)

Tamil Nadu has vast coastline of а 1076 kms which constitutes about 15 percent of the total coastal length of India. The State is endowed with varied coastal habitats like mangroves, corals, seaweeds, sea grass beds, salt marshes, mudflats, sand dunes etc. 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 and to promote sustainable development in the coastal areas. As per this notification, the coastal areas have been classified into four zones as follows:

- 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 m on the landward side along the sea front, the land area between HTL to 100 m or width of the creek, water bodies etc., whichever is less.

At present, Public Works Department (PWD) and Fisheries Department are proposing several coastal protection works which need clearance under CRZ Notification 2011. The State Coastal Zone Management Authority ensures that the said works are not taken up in adhoc manner. The Authority take 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. 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 feasible as a part of Comprehensive Coastal Zone Management.

## 9.1. Coastal Zone Management Authorities

The Ministry of Environment, Forest and Climate Change, Government of India 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.

# 9.2. Coastal Disaster Risk Reduction Project (CDRRP)

To reconstruct the coastal stretches affected by 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.

# 9.2.1 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 (HTL) 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. The High Tide Line maps are made available to the District Authorities.

# 9.2.2. 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 meters interval. The works have been entrusted to Forests Department. All works have been completed.

# 9.2.3 Preparation of Integrated Coastal Zone Management Plan (ICZMP)

The Integrated Coastal Zone Management Plan has been prepared for the coastline of Tamil Nadu. This information will be the base for taking appropriate action in deciding upon any developments to be undertaken along the coast. The different layers of information available through the Geographical Information System (GIS) platform can be used to assess the damage and plan for mitigation at times of coastal hazard.

# 9.2.4 Training and awareness programme

To develop awareness about the Integrated Management Plan Coastal Zone among various makers, stakeholders and decision training and awareness programmes have been conducted in all the 13 coastal districts. A State level training programme has also been conducted for decision makers and middle level officers.

# 10. 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 Environmental helpline will provide information on various aspects of the State of Environment and related issues of Tamil Nadu. ENVIS centre is engaged in collection, collation, storage, retrieval and dissemination of environmental information. It has established a public interface through a website *www.tnenvis.nic.in* and through the publication of Newsletters, creation of web based database and answering environmental queries.

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

Environment Management Agency of Tamil Nadu (EMAT) was constituted in the year 2002 and functioning from 22.01.2003 for co-ordination and liaisoning between National River Conservation Directorate, Ministry of Environment, Forest & Climate Change, Government of India and various implementing agencies for implementation of works under National River Action Plan(NRAP)/ National River Conservation Plan (NRCP), National Lake Conservation Plan (NLCP) and Chennai City River Conservation Project (CCRCP). 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 co-ordinated by Environment Management Agency of Tamil Nadu.

# 11.1. Abatement of pollution in the rivers under National River Action Plan (NRAP) / National River Conservation Plan (NRCP)

The National River Conservation Directorate, Ministry of Environment, Forest and Climate Change, Government of India had sanctioned an amount of Rs.510.35 crores during 1996-97 under National River Action Plan (NRAP) / National River Conservation Plan (NRCP) for Pollution Abatement schemes (preventing and diverting the sewage outfall from the towns into the rivers Cauvery, Vaigai and Tamiraparani and Sewage Treatment Plant for treating the collected Sewage) implemented by Tamil Nadu Water Supply and Drainage Board (TWAD Board) and Chennai Metropolitan Water Supply and Sewerage Board (CMWSS Board) . An expenditure to a tune of Rs.506.53 crores was incurred for the above schemes.

# 11.2 Chennai City River Conservation Project (CCRCP)

During the year 2000, an amount of Rs.491.52 crores has been sanctioned by the National River Conservation Directorate, Ministry of Environment and Forest, Government of India for the upgradation 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. The works in this project are being implemented by CMWSS Board, by creating four Sewage Treatment Plants to a total capacity of 264 MLD at an expenditure of Rs.392.17crores.

## 11.3. National Lake Conservation Plan (NLCP)

During the year 2004, the National River Conservation Directorate, Ministry of Environment and Forest, Government of India had directed the State to identify the polluted lakes in Tamil Nadu. Accordingly, the following 15 lakes were identified as per the NLCP Guidelines 2008 for consideration under National Lake Conservation Plan and communicated to the Government of India.

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

# 12. Other Activities of the Department 12.1. Environment Awards

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

### 12.2. Incentive scheme and awareness activities

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

## 12.3. Mass Awareness Campaign

**12.3.1** 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 developed and carried out through the involvement of Non-Governmental Organizations in all the 32 districts of the State at a cost of Rs. 64.00 lakhs. Action is being taken to continue this programme in the ensuing years.

**12.3.2** In order to implement a targetted awareness campaign and sensitize the citizens on the negative impact of burning of tyres, plastics and other materials on Bhogi (the eve of the festival of Pongal), a three day awareness campaign is organized by the Department of Environment throughout Chennai City. Bhogi awareness activities were carried throughout the State by National Green Corps and Eco-clubs.

**12.3.3** To disseminate Environmental Information among school children and to the general public on pollution, climate change, global warming etc., and its impact on everyday life, Environmental Information Dissemination Centres (EIDCs) were formed in 57 Educational Districts. The EIDCs have a library containing environmental related books, display charts, boards, posters (both in English and Tamil) highlighting issues related to polluted hotspots, climate change, global warming, etc. along with audio-visual equipments. The EIDCs are centrally located and are kept open to public.

# 12.3.4 Creating environmental awareness and eco protection activities in the 11 pilgrim centres of Tamil Nadu at a cost of Rs.55.00 lakhs

The towns of Sriranagam, Rameshwaram, Tiruthani, Palani, Tiruchendur, Thanjavur, Marudhamalai, Madurai, Chidambaram, Samayapuram and Srivilliputhur are the 11 important pilgrim centres located in Tamil Nadu. It is proposed to develop these pilgrim centers as environmentally clean and safe towns, by creating awareness among the public with assistance from Local Bodies, Hindu Religious and Endowments Department and Non-Governmental organizations. For this activity, a sum of Rs.55.00 lakhs will be spent by allocating Rs.5.00 lakhs per pilgrim area during this financial year. The Government have issued orders to the Tamil Nadu Pollution Control Board to release funds for the above activities. Accordingly, Tamil Nadu Pollution Control Board has released the fund and works are in progress.

12.4 Production of Five Short video films / Advertisement in five segments on the importance of Ecology and its Conservation at a cost Rs.15.00 lakhs.

Five short films/advertisements have been produced at a total cost of Rs.15.00 lakhs on land pollution, water pollution, air pollution, industrial pollution and the importance of environment. The short films will be screened to school students for creating awareness on the importance of Ecology and its Conservation.

#### TAMILNADU POLLUTION CONTROL BOARD

#### **1. INTRODUCTION**

Under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 (Central Act 6 of 1974), the Government of Tamil Nadu constituted the 'Tamil Nadu Prevention and Control of Water Pollution Board' on February 27, 1982. The Board was later renamed as Tamil Nadu Pollution Control Board (TNPCB) in the year 1983. The TNPCB was entrusted with the added responsibility of Air Pollution Control under the provisions of the Air (Prevention and Control of Pollution) Act, 1981. The enactment of the Environment (Protection) Act, 1986, which is umbrella legislation for enforcement of measures for protection of environment and several notifications of Rules under the Act further widened the scope of activities of the TNPCB. The TNPCB has been continuously playing a key role in abatement and control of pollution in the state.

Currently, TNPCB enforces various environmental legislations as notified from time to time by Government of India. It includes the following:-

- 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
- The Battery (Management and Handling) Rules, 2001
- The Hazardous and other Wastes (Management, and Transboundary Movement) Rules, 2016
- The Biomedical Waste Management Rules, 2016
- The Solid Waste Management Rules, 2016
- The Plastic Waste Management Rules, 2016
- E-Waste Management Rules, 2016.
- Construction and Demolition Waste Management Rules, 2016.

# 2. FUNCTIONS

The main functions of TNPCB, as defined in the Water (Prevention and Control of Pollution) Act, 1974, and the Air (Prevention and Control of Pollution) Act, 1981, are:

- Advise the State Government on any matter concerning the prevention, control and abatement of water and air pollution and also to advice with respect to the suitability of any premises or location for carrying on any industry which is likely to pollute a stream or well or cause air pollution;
- Lay down standards for treatment of sewage and trade effluents and for emissions from automobiles, industrial plants, and any other polluting source;
- Develop reliable and economically viable methods for treatment of sewage, trade effluents and air pollution control equipment;
- Evolve efficient methods of utilization of treated sewage and treated trade effluents in

agriculture; taken in to account of soil structure and type of crops;

- Identify any areas within State as air pollution control areas to be notified under the Air (Prevention and Control of Pollution) Act, 1981;
- Assess the quality of ambient air and water and inspect wastewater treatment installations, air pollution control equipments, industrial plants or manufacturing processes to evaluate their performance and to take steps for the prevention, control and abatement of air and water pollution;
- To perform such other functions as may be prescribed by the State Government or Central Pollution Control Board.

# 3. ORGANISATION SETUP

The TNPCB functions with three-tier system consisting of Corporate Office at Chennai, Regional offices and District offices with total staff strength of 705. There are 5 Regional offices headed by Joint Chief Environmental Engineers at Chennai, Vellore, Coimbatore, Trichy and Madurai. Besides, there are 36 district offices headed by District Environmental Engineers. In order to ensure a constant watch on the units in the textile industrial belt, the Board has two flying squads headed by Environmental Engineers functioning at Erode and Tiruppur.

In order to support the Board in effective monitoring of industries, water bodies and air quality of the State, the TNPCB has established 15 Environmental Laboratories in the districts. Among these, 5 Laboratories functioning at Chennai, Salem, Coimbatore, Cuddalore, and Madurai are Advance Environmental Laboratories (AEL) having sophisticated instruments to undertake analysis of additional parameters. These five AELs have been accorded certification by National Accreditation Board for Testing and Calibration of Laboratories (NABL).

#### 4. CONSENT MANAGEMENT

Under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, the industries are required to obtain consent of the State Pollution Control Board (SPCB) for discharge of sewage / trade effluent into any stream or well or into sewer or land. Further under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, the industries are required to obtain consent to operate the plant in air pollution control areas. The Government of Tamil Nadu vide G.O. (Ms.) No. 4 Environment Control Department dated 28.09.1983 has declared the entire state of Tamil Nadu as air pollution control area.

Central Pollution Control Board has categorized the industries as Red, Orange, Green and White based on their pollution potential. TNPCB adopts the same categorization. Further, TNPCB has classified the industries as Large, Medium and Small scale based on their gross fixed assets. Industries with Gross Fixed Asset 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. Presently around 46,000 units are under the purview of TNPCB.

TNPCB issues consent to the Industries in two stages. In the first stage, 'Consent to Establish' is issued under the Water (P&CP) Act, 1974 and Air (P&CP) Act,

1981 for establishing the industry by considering the impact on environment and the proposed pollution abatement measures subject to certain conditions. In the second stage, 'Consent to Operate' is issued for commissioning the plant for production, on compliance of conditions imposed in the 'Consent to Establish'. The Board has delegated powers to the field officers at the Regional and District Level to grant consent to the industries considering the category and size of the project. The Engineers in field offices 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 environmental pollution related complaints from the public and others organizations. From 1<sup>st</sup> April 2015 to 30<sup>th</sup> June, 2016, the Board has issued 'Consent to Establish' to1452 industries and 'Consent to Operate' to 2385 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.

# 5. ONLINE CONSENT MANAGEMENT AND MONITORING SYSTEM (EASE OF DOING BUSINESS)

TNPCB implemented E-Governance has in consent management. Accordingly TNPCB has provided facility of Online Consent Management and the 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 submission of clarification and for knowing the status of application. The online payment of consent fees is to be made functional shortly.

This system allows to carry out the consent management processes such as application scrutiny, raising inspection, raising clarification, submitting inspection report, preparing 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 36 district offices. This system brings efficiency and transparency in consent management.

## 6. ONLINE GRIEVANCE REDRESSAL SYSTEM

TNPCB has launched online grievance redressal system on 1.3.2016. The public can file compliant relating to industrial pollution to TNPCB through online. The compliant will be investigated and the action taken will be intimated to the petitioner through electronic mail. Upto 30<sup>th</sup> June 2016, 182 online complaints were received, investigated and disposed off.

# 7. MONITORING OF INDUSTRIES

In order to effectively monitor industries, the Board has fixed norms for inspection and sample collection based on size and category of the industry, vide B.P. Ms. No. 22 dated 25.2.2004.
Type of Industry	Category	Inspection	Sample Collection
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 Cate Industry	egory of	Once in a month	Once in a month

From 1<sup>st</sup> April 2015 to 30<sup>th</sup> June 2016, the Board has carried out ambient air quality survey in 1443 units, collected and analyzed 8070 sewage and 19850 trade effluent samples.

### 8. CARE AIR CENTRE

In order to monitor both source emissions and ambient air quality on a real time basis of the industries located in the State, TNPCB has established Care Air Centre for Accessing Real Time Air Quality Information Report at the Corporate office, Chennai. This is a continuous real time emission monitoring system of connected industries belonging to Red category and especially for 17 category of highly polluting units, which is functioning on 24 X 7 basis. This is the first of its kind in the India. When the emission levels exceed the norms, the inbuilt system will inform the concerned industry and the District Environmental Engineer, Member Secretary through an automated Short Messaging System (SMS) and Electronic Mail (e.mail) to take immediate remedial action. Upto 30<sup>th</sup> June, 2016, 351 units are connected to Care Air Centre for online monitoring. Of these, 334 units are connected for stack emission monitoring and 90 units for Ambient Air Quality monitoring.

### 9. WATER QUALITY WATCH CENTRE

TNPCB has established a Water Quality Watch Centre at the Corporate Office, Chennai. It is functioning since July 2015. This centre monitors the quality of treated effluent at the outlet of the treatment plant on continuous (24x7) basis through online. Upto 30<sup>th</sup> June 2016, 82 units are connected to this centre; of which 44 units are connected for zero liquid discharge monitoring and 38 units for treated effluent discharge monitoring. This type of monitoring system will leads to self monitoring and improve the environmental water quality.

#### 10. COMMON EFFLUENT TREATMENT PLANTS

Keeping in view the key role played by Small Scale Industries (SSI) units and the constraints in complying with pollution control norms individually by these units, the Ministry of Environment, Forest and Climate Change initiated an innovative technical and financial support scheme to ensure their growth in an environmentally compatible manner. The scheme promotes common facilities for treatment of effluents from SSI units located in clusters through financial assistance. 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. The Board assists in the technical scrutiny of the proposal plans for the CETPs. The details of CETPs established in the following sectors are as follows:-

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

Among 13 CETP schemes established for tanneries, 11 CETPs are in operation with Zero Liquid Discharge (ZLD) system. In the remaining two CETPs, one CETP has provided primary and secondary treatment system and opted for dilution of treated effluent with treated sewage to meet the standards prescribed by the Board. In the other one CETP, the installation of ZLD system is under progress.

Among 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 due to their inability to achieve ZLD standards. The one CTEP at Kodaikanal collects and treats the wastewater arising from the hotels and lodges located around the Kodai Lake.

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

The Ministry of Environment, Forest and Climate Change, Government of India has notified the Solid Waste Management Rules, 2016. As per the rules, solid waste means solid or semi solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non-residential wastes, street sweepings, silt removed or collected from surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste excluding industrial waste, bio-medical waste and e-waste. batterv waste. radio-active waste generated in the area under the local authorities. As per the rules, the local bodies are responsible for the collection, treatment and disposal of solid wastes.

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The Board is the monitoring authority under the said rules and is responsible for granting authorization to local bodies for processing and disposal of solid waste. The Board has issued direction to all the Local Bodies to establish waste processing facilities. So far, the Board has issued authorization to 5 Corporations, 48 Municipalities and 73 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, waste reduction, recycle and reuse to avoid any environmental issues during handling.

# **12. PLASTIC WASTE MANAGEMENT**

The Ministry of Environment, Forest and Climate Change, Government of India has notified the Plastic Waste Management Rules, 2016. As per the rules, plastic waste means any plastic discarded after use or after its intended use is over. The local body shall be responsible for the development and setting up of infrastructure for segregation, collection, storage, transportation, processing and disposal of the plastic waste.

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As per the rules, carry bag made of virgin or recycled plastic, shall not be less than fifty microns in thickness. The persons engaged in manufacture or import of carry bags or multilayered packaging or plastic sheets or like 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 relating to registration, for the manufacture of plastic products and multilayered packaging and disposal of plastic wastes. So far, TNPCB has identified 471 plastic carry bags manufacturing units and 140 plastic recycling units. Among these, TNPCB registration is issued to 219 units. In order to create awareness on plastic to the public, TNPCB provides a fund of Rs. 50,000/- (Rupees Fifty Thousand Only) every year to each District Collector since 2015. TNPCB addressed all the local bodies to effectively comply with the provisions of the said rules.

### **13. HAZARDOUS WASTE MANAGEMENT**

The Ministry of Environment, Forest and Climate Change, Government of India has notified the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. As per the rules, hazardous waste means any waste which by reason of characteristics such as physical, chemical, biological, reactive, toxic, flammable, explosive or corrosive, causes danger or is likely to cause danger to health or environment. The hazardous waste generator shall follow the steps namely prevention, minimization, reuse, recycling, recovery, utilization including co-processing and safe disposal of hazardous waste. SPCB shall grant authorization for handling the hazardous wastes.

TNPCB has identified 3,545 units generating hazardous wastes and issued authorization under the rules. In Tamil Nadu about 6.92 lakhs tonnes of hazardous waste is annually generated in which 2.97 lakhs tonnes is landfillable, 3.43 lakhs tonnes is recyclable and 0.52 lakhs tonnes is incinerable. The taking effective steps in Board is handling and management of hazardous wastes, its treatment and disposal in an environmentally safe manner. One common hazardous waste Treatment Storage and Disposal Facility (TSDF) has been established at SIPCOT Industrial Estate, Gummidipoondi and it is in

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operation. Another TSDF at Unduorumikidakulam village in Virudhunagar district is under establishment.

TNPCB has taken pioneering efforts to utilize the hazardous waste generated from Common Effluent Treatment Plants (CETPs) of textile processing units as material for co-processing in the cement fuel/raw factories. So far, about 50,000 tonnes of ETP sludge have been disposed to various Cement industries for co-processing. Similar trails are being taken-up for using hazardous waste generated from tannery CETPs in co-processing in the cement factories. A common facility for pre-processing of hazardous waste has been established in Ranipet by M/s. Gujarat Enviro Protection and Infrastructure Limited. The facility pre-processes the hazardous waste so as to use the same for coincineration in cement kiln.

# 13.1 ONLINE HAZARDOUS WASTE MANAGEMENT AUTHORIZATION

TNPCB has launched online hazardous waste application receipt and processing module on 1.3.2016. The industries can apply for authorization for handling their hazardous waste through online. The application will be processed and the authorization will be issued through online. This system allows the industry to track the status of their application. Upto 30<sup>th</sup> June 2016, 399 units have applied for authorization through online. These applications are processed and authorizations are being issued.

### 14. BIO-MEDICAL WASTE MANAGEMENT

The Ministry of Environment, Forest and Climate of India notified Change. Government has the Bio-Medical Waste Management Rules, 2016. As per the rules, bio-medical waste means any waste, which is generated during diagnosis, treatment or immunization of human beings or animals or research activities pertaining thereto or in the production or testing of biological or in health camps. The bio-medical waste generator and the operator of the common bio-medical waste treatment and disposal facility (CBMWTF) shall be responsible for safe handling and disposal of the bio-medical waste. The State Government of Health Department shall ensure for implementation of the rule in all health care facilities.

SPCB shall issue authorization to the health care facilities and CBMWTF. It shall monitor the compliance of various provisions of the rules. TNPCB has so far authorized 6261 Private and Government hospitals in the State under the rules. All these hospitals have made agreement with the CBMWTF for the collection, transport, treatment and scientific disposal of the biomedical waste. CBMWTF consists autoclave, The of shredder. incinerator and secured land fill facilities. In Tamil Nadu, 11 CBMWTF are under operation. On an average, daily 43 Tonnes of bio-medical waste is handled by these facilities. There are 3 such facilities in the districts of Tiruvallur. Cuddalore and Tiruppur under are establishment.

### **15. E- WASTE MANAGEMENT**

The Ministry of Environment, Forest and Climate Change, Government of India notified the E-Waste (Management) Rules, 2016. This rule will come into force from the 1<sup>st</sup> day of October, 2016. Electronic waste or e-waste comprises of old, end of life electrical and electronic appliances such as telephones, cellular telephones, computers, laptops, television sets, refrigerators. washing machine. air-conditioners. fluorescent and other mercury containing lamps etc. The rules apply to every manufacturer, producer, consumer, bulk consumer, collection centres, dealers, e-retailer, dismantler recycler refurbisher. and involved in manufacture, sale, transfer, purchase, collection, storage and processing of e-waste or electrical and electronic equipment.

As per the rules, the producer of the electrical and electronic equipment shall be responsible for collection and channelization of e-waste generated from the 'end-of-life' of their products for recycling under Extended Producers Responsibility. State Pollution Control Board shall grant and renew authorization to the manufacturers, dismantlers, recyclers and refurbishers. SPCB shall monitor on the compliance of Extended Producer Responsibility by the producer of electrical or electronic equipment for channelization of e-waste for recycling to ensure environmentally sound management of such waste. SPCB shall conduct random inspection of dismantler or recycler or refurbisher, maintain online authorization information regarding granted.

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implementation of programmes to encourage environmentally sound recycling, and action against violations of the rules. TNPCB has issued authorization for 35 units (producers - 4, collection centres- 13, dismantlers - 13, recyclers - 5) under the e-Waste (Management & Handling) Rules.

### 16. CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT

The Ministry of Environment, Forest and Climate Change, Government of India has notified the Construction and Demolition Waste Management Rules, 2016. These rules are newly notified exclusively to manage waste from construction activities. These rules apply to every waste resulting from construction, re-modeling, repair and demolition of any civil structure of individual or organization or authority who generates construction and demolition waste such as building materials, debris and rubble. The local bodies shall ensure proper management of construction and demolition waste. SPCB shall grant authorization for the waste processing facility and monitor the implementation of these rules. TNPCB has addressed all the local bodies.

to identify sites for collection and processing facility for the construction and demolition wastes.

# **17. WATER QUALITY MONITORING**

TNPCB is monitoring the water quality of major rivers and its tributaries at 55 locations, under the Monitoring of Indian National Aquatic Resources (MINARS) programme and under the Global Environmental Monitoring System (GEMS) as detailed below:-

SI.No.	Water Bodies	No. of stations	Suitability of Water quality	
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
5	Lakes	8	Drinking water with
			conventional
			treatment followed
			by disinfection and
			fish culture and
			wild life
			propagation

### 17.1 CONTINUOUS 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. Similarly three online meters are installed in river Thamirabarani. These stations monitors pH, total dissolved solids and dissolved oxygen on continuous basis. TNPCB is in the process of installing three monitors in the river Cauvery.

### **18. AMBIENT AIR QUALITY MONITORING**

With the increased industrial and commercial activities in the vicinity of major cities, the quality of the ambient air is being affected by emissions from the industries and from the ever increasing vehicular population. For monitoring ambient air quality in major cities and Towns of Tamil Nadu, TNPCB conducts ambient air quality survey at 28 locations under National Air Quality Monitoring Programme (NAMP) by installing high volume samplers. The locations are given below.

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SI.No.	City/Town	Sample Location	Land Use
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	Tiruchirappalli	Gandhi Market	Commercial zone
		Main Guard Gate	Traffic intersection
		Bishop Heber College	Mixed zone
		Golden rock	Residential zone
		Central Bus stand	Traffic intersection
6	Thoothukudi	Raja Agencies	Industrial zone
		SIPCOT	Industrial zone
		AVM Building	Mixed zone
7	Mettur	Raman Nagar	Residential zone
		SIDCO	Industrial zone

8 C	Cuddalore	Echankadu village	Residential zone
		Imperial College	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 Particulate Matter ( $PM_{10}$ ) and gaseous pollutants such as oxides of Sulphur and Nitrogen. During the period 2015-16, 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.  $PM_{10}$  exceeded in few places which is mainly due to vehicular movement.

# 18.1 CONTINUOUS AMBIENT AIR QUALITY MONITORING STATIONS

Besides manual air quality monitoring, the Board has installed six automatic Continuous Ambient Air Quality Monitoring (CAAQM) stations. Four stations are installed at Chennai (viz) Koyambedu, Royapuram, Perungudi (Sai Nagar), Kodungaiyur, and one station each at SIPCOT Gummidipoondi and SIPCOT Thoothukudi. All the monitoring stations are in operation. All monitoring stations monitor  $PM_{10}$ ,  $PM_{2.5}$ ,  $SO_2$ ,  $NO_2$ ,  $NH_3$ ,  $O_3$ , CO and Benzene on a continuous basis. Important features of the system are;

- Data updation at a frequency of 15 minutes from the locations.
- ii. Immediate reporting of violation of Ambient Air Quality Standards.
- iii. Data validation with working ranges and instrumental ranges.
- iv. Common System can fetch the available data from any CAAQM Stations in state.
- v. Connectivity through mobile or landline communication network.
- vi. Instant access to previous and current data in desired formats.
- vii. The software can also analyze the data as desired normally like comparisons with other stations, hourly, eight hourly, monthly, yearly data analysis etc.

## 18.2 MOBILE CONTINUOUS AMBIENT AIR QUALITY MONITORING STATION

In March 2016, TNPCB has commissioned one mobile continuous ambient air quality monitoring station to monitor the ambient air quality on real time basis. The Mobile station has the facility to monitor Sulphur di oxide (SO<sub>2</sub>), Nitrogen di oxide (NO<sub>2</sub>), Ammonia (NH<sub>3</sub>), Ozone monoxide (CO), Benzene, Toluene,  $(O_3)$ . Carbon Ethylbenzene, Xylene (BTEX), Particulate matter size less than 10 micron (PM<sub>10</sub>) and Particulate matter size less than 2.5 micron ( $PM_{2.5}$ ). The station also have weather monitoring station to measure wind direction, wind speed, ambient temperature, related humidity, solar radiation, rainfall, barometric pressure etc. This mobile station can be used to monitor the air quality in hotspots of Chennai city and other places. TNPCB is the first State Board in the country to have a mobile continuous ambient air quality monitoring facility.

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

# **19.1 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 Pozzolana Cement 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.
- Activated carbon manufacturing units have gone for waste heat recovery boiler and eliminated the dedicated boiler to produce steam for the activation purpose. This system eliminated the consumption of coal / wood as fuel for the boiler and thus avoided greenhouse gaseous emission.

# **19.2 TECHNOLOGY DEMONSTRATION CENTRE**

TNPCB has established Technology а Demonstration Centre at Indian Institute of Technology Madras and have entered into a Memorandum of Understanding (MoU). A sum of Rs.5 crores has been for this purpose. allocated The Technology Demonstration Centre has conducted treatability studies for rice mills, sago and small scale textile processing units. The Centre has conducted awareness programme on fire management on waste landfill site for the Municipal Authorities, Fire Department and TNPCB officials. The Centre has also conducted technical workshop for sago industries 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. This Centre designed and fabricated the Upflow Anaerobic Sludge Blanket Reactor (UASB) to demonstrate best available technology for anaerobic treatment of sago waste water and energy generation. Further work in this regard is continuing.

### **19.3 MASSIVE TREE PLANTING PROGRAMME**

TNPCB has supported the Forests Department for Massive Tree Planting Programme by planting 64 lakhs seedlings, 65 lakhs seedlings, 66 lakhs seedlings and 67 lakhs seedlings during the year 2012, 2013, 2014 and 2015 respectively. The Board has granted fund of Rs.28.84 crores, Rs.20 crores, Rs.17.99 crores and Rs.16.832 crores for the tree planting programme during the year 2012, 2013, 2014 and 2015 respectively.

# 19.4 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 of environment-friendly rules implementation and regulations by the Government machinery in a 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 that specified locations.
- Deepavali Festival:- Awareness programmes are conducted to prevent the bursting of crackers from 10 P.M to 6 A.M and also not to burst crackers

creating sounds of 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 during Pre-Deepavali and Deepavali days. The results are published in the TNPCB web site.

- 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, Board conducts ambient air quality monitoring during pre-bhogi and bhogi festival days in 15 locations. The results are published in the TNPCB web site.
- Karthigai Mahadeepam Festival:- The Plastic Awareness campaign is conducted every year in Thiruvannamalai Town during the Karthigai Mahadeepam Festival. In order to encourage the people to avoid plastic carry bags and use alternate like cloth bag, paper bags, jute bags, TNPCB conducts a programme by giving coupons to the people who brings cloth bag, jute bags and select

the winners by lucky draw and give gold and silver coins. This has created huge awareness among the people.

- Mahamaham Festival:- TNPCB has conducted extensive awareness programme during the Mahamaham Festival in January 2016. 'Maasilla Mahamaham' rally was conducted on 7.1.2016 in Kumbakonam in which more than 1000 school participated. Workshop on 'Clean students Kumbakonam' was conducted on 22.1.2016 in which more than 500 school students participated. 2.2.2016, plastic awareness On rally was conducted in which more than 1000 college students participated. On 3.2.2016, human chain conducted with а theme of 'Clean was Kumbakonam', in which more than 1500 school participated. The students Board has also participated in the Special Exhibition conducted for Mahamaham Festival.
- Government Exhibitions:- TNPCB actively participates in the Government Exhibitions conducted every year at Island Grounds in Chennai

and in the District Head Quarters by providing stall and exhibits models on Effluent Treatment Plant. Air Pollution Control Measures, Solid Waste and other information Management on Environmental Protection. In 2015-16. TNPCB participated in the Government Exhibitions held in Island Grounds and in Tiruvannamalai, Trichy, Thanjavur, Nagercoil. Large number of Students and People have visited the stalls and benefited. In Theni District, TNPCB installed a stall in the Vaigai Peruvizha festival for creation of environmental awareness to the people.

# **19.5 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 2015-16, the ETI has conducted 27 training programmes, in which 1464 participants have been trained. Training programme includes:-

- Identification and quantification of hazardous wastes
- Pollution Control Laws and Rules
- Integrated Coastal Zone Management
- Environmental Economics
- Air Quality and Health
- Plastic Waste Management
- Wastewater Treatment
- Right to Information Act

# **19.6 OFFICE BUILDING CONSTRUCTIONS**

Among the 36 District Offices, the Board has its own building for 17 offices. For the remaining 19 District offices, buildings are nearing completion in 6 districts namelv Coimbatore North. Coimbatore South, Oragadam, Erode, Perundurai and Vaniyambadi. For 3 Districts namely Tiruvallur, Nagapattinum and Salem, land has been acquired and Detailed Project Report is under preparation by Public Works Department. For 9 namely Tiruppur North, Tiruppur Districts South. Thiruvannamalai, Theni, Nagarcoil, Ooty, Ariyalur, Dharmapuri and Ramanathapuram lands are yet to be acquired. For one District (i.e) Karur, the construction work was suspended due to litigation in the Supreme Court.

### **19.7 GREEN AWARDS**

As per the announcement made in the Legislative Assembly 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 Green Awards are also given to the District Collectors who have taken action for the betterment of environment in their districts.

### **19.8 APPELLATE AUTHORITY**

As per the section 28 of the Water (Prevention and Control of Pollution) Act, 1974 and as per section 31 of the Air (Prevention and Control of Pollution) Act, 1981, any person aggrieved by an order made by the State Pollution Control Board may prefer an appeal to authority constituted by the State Government. The Government of Tamil Nadu has constituted an Appellate Authority under the Chairmanship of Hon'ble Justice (Retd), High Court of Madras with two technical members. The Authority is functioning at No.51, Gangadeeswarar Koil Street, Purasaivakkam, Chennai-86. From April 2015 to June 2016, 82 appeals have been filed. Among these 26 appeals were disposed off and the remaining 56 appeals are under trial.

### **19.9 NATIONAL GREEN TRIBUNAL**

The National Tribunal Green (NGT) was established at New Delhi on 18.10.2010, for effective and expeditious disposal of cases relating to Environmental Protection and Forest Conservation. As per the National Green Tribunal Act, 2010, any person aggrieved by an order or decision of the Board/Appellate Authority 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.

The first bench of National Green Tribunal for Southern Zone was constituted in 2012 and the second bench was constituted in 2015. The NGT is functioning at TNPCB Building, Arumbakkam, Chennai-106. TNPCB has facilitated for the establishment of NGT Southern Zone. So far 563 cases involving TNPCB were filed. Among these, 300 cases were disposed off and 263 cases are under trial.

#### 19.10 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 kinds in the Country, which has large collections of books and journals on Environment. Membership is open to all the stakeholders in the environmental sector. For automation of library, Lib Sys software is installed and it is in use.

### 20. HIGHLIGHTS OF PERFORMANCE

TNPCB aims at developing all round capabilities to protect the environment by preventing and controlling pollution through effective law enforcement and by adopting best environmental management practices to keep the State on course of sustainable development. As a result, the Board has promoted the State of the Art Technology not only for technical components and issues but has 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 CETPs. The Board is the first in the country in implementing Zero Liquid Discharge (ZLD) concepts in Textile and Tannery sectors. The Board is the first one in the country to establish the CARE AIR Centre for online continuous monitoring of air emissions. So far 351 industries have been connected online and are being monitored round the clock. Similarly, TNPCB is the first State Board for the establishment of Water Watch Centre, TNPCB is also the first Board in the country to establish 11 CBMWTFs for treating and disposal of bio-medical waste.

TNPCB is the only State Board in the Country that has obtained certification from National Accreditation Board for Testing and Calibration Laboratories for its five Advanced Environmental Laboratories. It is the first State Board in the country that has a mobile continuous ambient air quality monitoring station. In order to monitor the water quality of important water bodies on continuous basis, TNPCB has installed online continuous monitors. The Board is constantly having interaction with all the stakeholders by way of meetings, workshops, awareness programmes, training etc., for prevention of pollution and better compliance of environmental laws in the State.

TNPCB launched OCMMS has for online submission of application for consent, processing and issue of consent. The Board has also launched online hazardous waste application receipt, processing and online grievance redressal system, which are all milestones in e-governance. TNPCB is taking all efforts by way of prevention and control of pollution from the industrial activities so as to protect the environment in the

State. TNPCB will be guided in all its endeavors by its Vision Statement –"To forge partnerships with the stakeholders for responsible and sustainable development of the State".

# K.C. KARUPPANAN MINISTER FOR ENVIRONMENT