

### **ENVIRONMENT, CLIMATE CHANGE AND FORESTS DEPARTMENT**

### **ENVIRONMENT AND CLIMATE CHANGE**

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# TAMIL NADU POLLUTION CONTROL BOARD

#### 1.0. Introduction

Preservation, protection and improvement of the environment, for present and future generations is the solemn duty of every citizen. Considering above, the Government of Tamil Nadu established Tamil Nadu Prevention and Control of Water Pollution Board, vide G.O.No.340, Health Family Welfare Department, and dated 19.02.1982, under Section 4 (1) of the Water (Prevention and Control of Pollution) Act, 1974 (Central Act 6). The notification was issued in the Tamil Nadu Government Gazette on 27<sup>th</sup> February 1982 and on the same day the Board came into existence. Subsequently after framing of the Tamil Nadu Water (Prevention and Control of Pollution) Rules, 1983, the Board was renamed as Tamil Nadu Pollution Control Board (TNPCB).

The TNPCB functions under the Environment, Climate Change and Forest Department [Renamed vide G.O.Ms No.55 (Personnel and Administrative Reforms Department) dated 07.06.2021]. It is the statutory organization responsible for abatement and control of environmental pollution in the State by enforcing the Central Acts. As per the Section 4 of the Water (P&CP) Act, 1974, the Board comprises of the Chairman, the Member Secretary, five officials to represent the State Government, five persons to represent the local authorities, three non-officials to represent the interests of agriculture, fishery or industry or trade and two persons to represent the companies or corporations owned by the State Government.

#### 2.0. The Legal Framework

The TNPCB is a regulatory body which enforces the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986, besides the following Rules and Notifications made there under.

- The Tamil Nadu Water (Prevention and Control of Pollution) Rules, 1983
- The Tamil Nadu Air (Prevention and Control of Pollution) Rules, 1983
- The Environment (Protection) Rules, 1986
- The Fly Ash Utilization Notification ,1999
- The Noise Pollution (Regulation and Control)
   Rules, 2000
- The Batteries (Management and Handling)
   Rules, 2001
- The Environment Impact Assessment Notification, 2006
- Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.
- The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
- The Bio-Medical Waste Management Rules,
   2016
- The Solid Waste Management Rules, 2016
- The Plastic Waste Management Rules, 2016

- The E-Waste Management Rules, 2016
- The Construction and Demolition Waste
   Management Rules, 2016

#### 3.0. Organization set up

For effective and efficient functioning of the organization, the Board has three-tier system consisting of (i) Head Office in Chennai (ii) Seven Zonal Offices and (iii) Thirty eight District Offices.

The Head Office is located at Chennai under the Chairman. The Zonal offices are headed by the Joint Chief Environmental Engineer (Monitoring) and District offices are headed by the District Environmental Engineer. Apart from this, there flying squads headed by two are Environmental Engineer functioning at Erode and Tiruppur. The TNPCB has also established sixteen Laboratories (Eight Advanced Environmental Laboratories and Eight District Environmental Laboratories) for efficient effluent sampling and emission survey of the industries, and the environmental quality survey in the State.

#### 4.0 Functions

Important functions of the TNPCB, as defined under Section 17 of the Water (P&CP) Act, 1974 and under Section 17 of the Air (P&CP) Act, 1981 are as below:

- To plan a comprehensive programme for the prevention, control and abatement of pollution of streams and wells besides air pollution in the State and to secure the execution thereof.
- To advise the State Government on any matter concerning the prevention, control or abatement of water and air pollution.
- To inspect sewage or trade effluents, works and plants for the treatment of sewage and trade effluents and to review plans, specifications or other data relating to plants set up for the treatment and the

- system for the disposal of sewage or trade effluents.
- To collaborate with the Central Pollution Control Board (CPCB) in organizing the training of personnel engaged or to be engaged in programmes relating to prevention, control or abatement of water and air pollution and to organize mass education programme relating thereto.
- To encourage, conduct and participate in investigations and research relating to problems of water pollution and prevention, control or abatement of water pollution.
- To establish or recognize laboratories to enable the Board to perform its functions efficiently, including the analysis of samples of water from any stream or well or of samples of any sewage or trade effluents and emission of air pollutants.
- To perform such other functions as may be prescribed or as may, from time to time

entrusted to it by the CPCB or the State Government.

### 5.0. Consent Mechanism for Industries in Tamil Nadu

The Consent to Establish and the Consent to Operate are being given by TNPCB in order to monitor industries in respect of air and water pollution. Consents are issued to industries in two stages. In the first stage, the 'Consent to Establish' (CTE) is issued after duly assessing among others the siting criteria of one km distance from river margin as per the G.O.(Ms) No.213, Environment and Forests Department, Dated 30.3.1989 and five km as per the G.O.(Ms). No.127, Environment and Forests Department, dated 08.05.1998 with the prime objective of protecting precious water bodies. During the second stage, the 'Consent to **Operate'** (CTO) is issued to operate industrial units after ensuring the unit's compliance of conditions stipulated in the Consent to Establish.

For efficient and effective implementation of the Acts and Rules and for efficient monitoring, the TNPCB has constituted various committees at Head Office, Zonal and District office levels. These committees conduct meetings at regular intervals at their level and decide on the issue of consent, renewal of consent and authorization for waste management etc.

### 5.1. Transparency in Consent Management through the online portal

Consent to Establish (CTE) and Consent to Operate (CTO) for Industries are issued by the Board based on the proposals submitted by proponents. As a part of e-governance initiative of the Government of Tamil Nadu and with a view to provide a healthy and proactive interface between the regulatory authority and industries, TNPCB has introduced the facility of "Online Consent"

Management and Monitoring System" (OCMMS) from 19.01.2015 onwards.

This system brings transparency and promptness in consent management, facilitating the industries for online submission of applications for Consent to Establish / Consent to Operate / Renewal of Consent, uploading of documents, online payment fees. οf online submission consent οf clarifications, besides knowing the status of applications. TNPCB operates the 'Care Centres' in the Head Office and all other District offices to help project proponents in filing up of applications through OCMMS.

In view of the outbreak of Corona and as per the directions of Govt. of Tamil Nadu, the TNPCB has extended the validity of CTE/CTO for all the units who have valid CTE/CTO upto March, 2021 for a further period of 8 months upto November 2021.

### 6.0. Categorisation of Industries in TamilNadu

To facilitate the consent mechanism and effective monitoring the CPCB has categorized industries as Red, Orange, Green and White based on the **Pollution Index Score.** It has directed all State Pollution Control Boards (SPCBs) the same for grant of consent, to adopt inventorisation and other associated activities. Following the above categorization, the Board has classified industries into a matrix of different categories by combining the pollution potential of an industry and the value of its Gross Fixed Assets (GFA) for the purpose of monitoring. Thus, industries are grouped as Red, Orange, Green and White and as Large, Medium and Small. As per the CPCB direction, there shall be no necessity of obtaining consent for White category industries and only an intimation to TNPCB shall suffice.

Categor y based	GFA (Rs in	Category based on polluting potential			
on GFA	crore)	Red	Orange	Green	White
Large	> 10	Highly	Medium	Less	Non
Medium	5 - 10	Polluting	Polluting	Polluting	Polluting
Small	< 5				

In addition, certain highly polluting industries (177 Nos.) have been brought under 17 category industrial list for intensive monitoring purpose.

Number of industries under the consent mechanism of the Board are as given below.

Size /	Red	Orange	Green	Total
Category				
Large	1875	2648	1014	5537
Medium	260	919	534	1713
Small	10018	22776	9480	42274
Total	12153	26343	11028	49524

### 7.0. Care Air Centre and Water Quality Watch Centre

The "Care Air Centre" is established at the Head Office in Chennai. The purpose of this Centre is to monitor industrial stack emissions and ambient air quality of surrounding areas on real time basis (24x7). Major air polluting industries such as Cement, Oil Refinery, Petrochemicals, Thermal Power Plants, Fertilizers, Iron & Steel industries etc., are connected to the care air centre. In case standards are exceeded, SMS and e-mail messages are sent immediately to the industry and the concerned District Environmental Engineer to rectify defects. Besides, this system ensures self monitoring by industries. So far 405 units are connected for stack monitoring and 154 units for ambient air quality monitoring to this centre.

Following the success of this Scheme, the Board has expanded its network incorporating the "Water Quality Watch Centre" during 2015.

polluting industries Maior water such as Tanneries, Distilleries, Sugar factories. Pharmaceuticals, Pesticides, Textile Processing and Common Effluent Treatment plants (CETPs) etc., are connected to this centre. The quality of treated effluents is monitored on real-time basis. 370 units are connected to this centre and realtime monitoring data are displayed in the Board's website.

#### 8.0. Flying Squad

In order to have enhanced vigil and monitoring of industries in vulnerable Textile Industrial belts and to protect water bodies from illegal discharges, the Board has established two flying squads at Erode and at Tiruppur. In case of any unauthorized unit found to be operating and discharging into water bodies, the Flying Squad reports to the District Co-ordination Committee (DCC) functioning under the head of the District Collector. The District Co-ordination Committee

(DCC) will issue orders for sealing of the unit, disconnection of power supply and filing of criminal case against the unit as well as the land owner. The Flying Squad also patrols and identifies unauthorized movement of hazardous and bio-medical waste etc.,

## 9.0. COMMON EFFLUENT TREATMENT PLANTS (CETPs)

Taking into consideration, the key role played by Micro, Small and Medium Enterprises (MSME) units and the constraints in complying with pollution control norms individually by these units, the MoEF&CC, GoI initiated an innovative technical and financial support scheme to ensure their growth in an environmentally compatible manner. This scheme promotes common facilities for treatment of effluents from MSME units located in clusters through financial assistance. The 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 proposals for CETPs. In Tamil Nadu, CETPs schemes were formulated in the following sectors:

S. No.	Industrial Sector	No. of CETP Schemes	
1.	Tanneries	13	
2.	Textile Bleaching & Dyeing Units	19	
3.	Electroplating Units	2	
4.	Hotels & Lodges	1	
5.	Common Marine Discharge Scheme	1	
6.	Pharmaceutical Industries	1	
	Total	37	

Apart from the 19 CETPs for textile bleaching and dyeing units, there are 10 CETPs to be located at Erode and Namakkal Districts funded under Integrated Processing Development Scheme (IPDS), by the Ministry of Textiles (MoT), Government of India.

#### 10.0. Waste Management

#### 10.1. Solid Waste Management

Solid waste consists of biodegradable and nonbiodegradable waste generated from domestic, commercial and industrial activities. The Solid Management Rules Waste prescribe responsibilities of local bodies for proper collection, treatment and disposal of municipal wastes. In Tamil Nadu, there are 15 Corporations, 121 Municipalities and 528 Town Panchayats. Authorization has been issued to 219 Urban Local Bodies (ULBs) including Corporations, Municipalities and Town Panchayats which are generating solid wastes for more than 5 tons/day.

Solid Waste Management Rules mandate local bodies to carryout Bio-mining of old dumpsites and recover. In this regard, the Board has issued directions under section 5 of the Environment (Protection) Act, 1986 to Urban Local bodies to comply with the said Rules. Accordingly, the Bio-

mining of legacy waste has been initiated by local bodies in 152 dumpsites in the State, of which 23 sites have been completed and in the remaining 129 sites work is in progress. The Municipal Administration & Water Supply Department has reclaimed 23 sites of total land area 404832 sq.mts worth of Rs.19768.67 Lakhs. The Board continues to monitor the environmental qualities in and around the dumpsite periodically.

As per the orders of the Hon'ble National Green Tribunal in O.A. No. 606 of 2018, the Board issues directions under Section 5 of the Environment (Protection) Act, 1986 to Municipal Corporations, Municipalities and Town Panchayats which are not complying with the Rules.

#### 10.2. Plastic Waste Management

Rapid increase in urbanization, population and industrial growth has lead to increase in plastic waste generation. As per the latest Annual Report, the estimated plastic waste generated

from 15 Corporations, 121 Municipalities and 528 Town Panchayats of Tamil Nadu 1136 tons/day plastic waste collected is segregated by the respective urban bodies. The recyclable plastic waste is sold to recyclers and non-recyclable plastic waste is sent for co-incineration in cement plants.

The Board has issued registration to 27 compostable plastic manufacturing units and 230 plastic waste recycling units as per the Plastic Waste Management Rules.

### **10.2.1.** Ban on one time Use and Throwaway Plastics

The Government vide G.O.(Ms) No.84, Environment and Forests (EC.2) Department, dated 25.06.2018 have issued orders to ban fourteen types of 'use and throwaway plastic items irrespective of thickness. The ban is in effect from 01.01.2019.

The Board in co-ordination with line departments took various action for effective implementation of the ban on plastics, which includes awareness programmes through regional conferences, district environmental committee meetings, rallies at district headquarters, messages through social media, display board in national highway toll gates etc.

In order to intensify the plastic ban and in compliance with the orders of the Hon'ble High Court of Madras, the Government vide G.O. (Ms). No. 37, Environment and Forests (EC.2) Department, dated 05.06.2020 has issued orders banning the use of plastic in primary packaging too. As part of action on violators, the Board issued orders for closure of 115 units which manufactured banned plastic items.

Though the Government of Tamil Nadu had brought a complete ban on manufacturing storage, supply, transport, sale and distribution of

14 types of "Use and throwaway plastics" from 01.01.2019. Still the ban has not been effectively implemented and a lot needs to be done to make the "plastic ban" a success.

TNPCB will launch an exclusive campaign a 'people's movement 'in each District to invite stakeholders from various sectors like Traders Associations, Social Clubs, Merchants Association, citizen bodies and leaders from local bodies. This will be followed up by strict enforcement with the support and guidance of District Collectors.

The Ministry of Environment & Forests, Climate Change, Govt. of India vide notification dated 12.08.2021 has issued Plastic Waste Management (Amendment) Rules, 2021 in which certain Single Use Plastic items such as plastic/PVC banners less than 100 microns, cutlery items, ear buds with plastic sticks, plastic sticks for balloons, plastic flags, candy sticks, ice-cream sticks, polystyrene [Thermocol] for decoration, plates, cups, glasses,

etc., are prohibited from 01.07.2022. Also, plastic carry bags less than 75 microns and non-woven plastic carry bags less than 60 Gram per Square Metre (GSM) shall be prohibited from 30.09.2021 and plastic carry bags less than 120 microns shall be prohibited from 31.12.2022.

### 10.3. Construction and Demolition Waste Management

Construction and Demolition (C&D) waste is generated whenever any construction/demolition activity takes place, such as, building roads, bridges, fly overs, subways, remodeling etc., It consists mostly of inert and non-biodegradable material such as concrete, plaster, metal, wood, plastics etc. which are having the recycling value. The Construction and Demolition Waste Management Rules prescribes that the local bodies shall ensure proper management of construction and demolition waste. The Board has issued directions to all local bodies and line departments to identify sites for establishment of facilities for collection and processing of C&D wastes. Large Corporations such as Chennai, Madurai, Coimbatore, Tiruchirapalli and Tiruppur have proposed to set up such processing facilities. In Greater Chennai Corporation, two facilities of 400 TPD capacity each are in operation, one at Kodungaiyur and in Perungudi dump site. The Greater Chennai Corporation has established collection centres at 15 zones for receiving Construction and Demolition Waste.

#### 10.4. E-Waste Management

The producer of the electrical and electronic equipments shall be responsible for collection and channelization of e-wastes generated from the 'end-of-life' of their products under Extended Producers Responsibility (EPR) as per the E-Waste Management Rules, 2016. The CPCB issues EPR authorization to the producer and the TNPCB monitors the compliance of the provisions of the E-Waste Management Rules, 2016. The TNPCB

grants authorization to the manufacturers, dismantlers, recyclers and refurbishers and conducts random inspections. To comply with the E-Waste Management Rules, the work on the e-waste Inventorisation in the State of Tamil Nadu has been granted to the National Productivity Council, Chennai.

#### 10.5. Biomedical Waste Management

Bio-medical waste is the waste generated during diagnosis, treatment or immunization of human beings or animals or in research activities pertaining thereto or in the production or testing biological labs. The Bio-Medical in Waste Management Rules prescribes the responsibility of the waste generators and the operators of the Bio-Medical Waste Treatment Common Disposal facilities (CBMWTFs) for safe handling and disposal of the bio-medical wastes. In Tamil Nadu, 10 CBMWTFs are in operation. The TNPCB issues authorization to the health care facilities (HCF) and the CBMWTFs through online and monitors the compliances of the various provisions of the Rules. The Government has constituted the State Level Advisory Committee to oversee the implementation of the Rules.

In the State of Tamil Nadu, so far 25910 Private and Government hospitals, including the bedded and non bedded clinics, veterinary institutions, pathological labs, blood banks and research institutions have been issued with authorizations under BMWM Rules, 2016. All these units have executed agreements with the adjoining CBMWTFs for the collection, transport, treatment and scientific disposal of the biomedical wastes.

### 10.5.1. COVID-19 Bio Medical Waste Management

The COVID – 19 Bio Medical Waste generated from all the Health care facilities, Testing Center, Labs & Urban Local Bodies till date are collected, treated scientifically and disposed through 10

CBMWTFs located in Tamil Nadu as per the guidelines issued by the CPCB for COVID-19 waste management. Based on the CPCB revised guidelines for COVID waste management, the TNPCB has issued instructions to all the CBMWTFs to operate for extra hours to the installed capacity so as to treat their increased quantity of COVID19 BMW.

Further, the TNPCB has issued permission to the TSDF, Gummidipoondi to utilize the existing HW incinerator to incinerate the COVID-19 bio medical waste as per the CPCB guidelines.

The details of daily collection and disposal of COVID-19 Bio Medical Waste is being uploaded in the TNPCB website. Average daily generation of COVID-19 waste and non-COVID Bio Medical Waste during the period April 2020 to July 2021 is 14 tonnes and 35 tonnes respectively.

#### 10.6. Hazardous Waste Management

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 and Other Waste (Management & Transboundary Movement) Rules, 2016 prescribes that the hazardous waste generators shall follow the steps namely prevention, minimization, reuse, recycling, includina recovery, utilization co-processing and safe disposal of the hazardous wastes. The TNPCB grants authorization for handling the hazardous wastes.

In the State of Tamil Nadu, there are 3,961 units identified as hazardous wastes generating units and have obtained authorization from TNPCB through online. Based on the latest Annual Report 9.62 lakh tons of hazardous wastes was generated, out of which 0.78 lakh tons are

landfillable (Spent Carbon, Activated Carbon, Dust from APC measures), 1.2 lakh tons are recyclable (Used Oil, Waste Oil, e-waste), 0.24 lakh tons are incinerable (Waste Residue, Sludge from Wet Scrubber, Spent Carbon) and 7.4 lakhs tons of wastes are utilizable (Spent Solvent, Iron & Steel, ETP sludge). Out of 7.4 lakh tons of utilizable waste 1.5 lakh tons has been utilized in Cement industries for co-processing.

The Board is taking effective steps in handling and management of hazardous wastes, its treatment and disposal in an environmental friendly manner. The two common hazardous waste "Treatment, Storage and Disposal Facilities" (TSDF) established at Gummidipoondi and Virudhunagar are in operation. Further, the Board has taken efforts to utilize the hazardous wastes generated from CETPs of the textile processing units and tanneries as raw material for co-processing in cement factories. There are 123 units issued with

authorization for handling and treatment of utilizable waste and 86 units are issued with authorization for handling and treatment of recyclable waste.

#### 11.0. Environmental Quality Monitoring

Environmental Quality Monitoring and data generation is essential for abatement of pollution and evolve policy for improvement of the environment. As per the mandate given in the Water and Air Acts, the TNPCB monitors the quality of air and water through various programmes out of which some of the programmes are partly funded by the CPCB.

### 11.1. Monitoring of Water Bodies

## 11.1.1. National Water Quality Monitoring Programme

The Board is monitoring the water quality of inland water bodies under the National Water Quality Monitoring Programme (NWQMP) with partial funding support of the CPCB in four major

rivers (i.e) Cauvery, Tamirabarani, Palar and Vaigai and eight lakes located in Udhagamandalam, Kodaikanal, Yercaud, Veeranam, Porur, Poondi, Pulicat and Redhills. At present, the water quality is monitored on monthly basis at 58 stations in Tamil Nadu.

The TNPCB has started monitoring the ground water quality from January 2020 onwards in 18 stations covering Erode, Namakkal, Salem, Karur, Tirunelveli, Thoothukudi, Trichy, and Tiruvallur districts in order to monitor the ground water quality in the vulnerable areas for ground water pollution. The samples are collected monthly / half-yearly basis and data generated is analysed and are uploaded in the TNPCB web site.

### 11.1.2. National Rivers Conservation Plan (NRCP)

The CPCB has sanctioned additional 51 stations for monitoring of river water quality in the State under the National River Conservation Plan

(NRCP). The data generated is analysed and are uploaded in the TNPCB web site.

### 11.1.3. Chennai City Waterways Monitoring Programme

Chennai city comprises of four major waterways (i.e) Adyar River, Cooum River, Buckingham Canal, and Otteri Nallah. The TNPCB monitors the water quality of these water bodies at 30 locations on monthly basis.

### 11.1.4. Real Time Water Quality Monitoring System

In order to monitor the water quality of water bodies in the Textile Industrial belts of Tiruppur, Erode, Namakkal districts on real-time basis, the TNPCB has installed three online continuous water quality monitors in River Cauvery, Noyyal, Bhavani, and Kalingarayan canal and also in river Tamirabarani in Tirunelveli district. Parameters such as pH, Total dissolved solids (TDS) and Dissolved oxygen (DO) levels are monitored. The monitors are connected to the Water Quality

Watch Centre at the Head Office and the data is displayed regularly in the TNPCB website.

#### 11.1.5. Polluted River Stretches

Based on the **National Water Quality Monitoring Programme (NWQMP)** monitoring data, the CPCB has declared 302 river stretches in the country as polluted river stretches, out of which, six river stretches fall in Tamil Nadu.

In all these river courses, the main cause of is due to discharge of untreated pollution domestic sewage / sullage and dumping of municipal solid wastes from the urban local bodies. As per the guidelines issued by the CPCB, action plan for restoration of above river stretches was prepared and approved by the CPCB. The action plan includes construction of Underground Drainage Sewerage System (UGDSS), Sewage Plants (STPs), Solid Treatment Waste facilities, CETPs for industrial Management effluent treatment and eviction of encroachments.

The Action plan is being implemented through the respective line departments.

During the Budget Speech for the year 2021-2022, this Government has announced that TNPCB shall establish permanent water quality monitoring stations along the major rivers up and down stream of major cities and industrial clusters, in phased manner over the next three years. All sewage treatment plants will be monitored online on a real time basis to ensure that they achieve the desired quality parameters and do not pollute water bodies.

#### 11.2. Monitoring of Ambient Air Quality

### 11.2.1. National Air Quality Monitoring Programme

Under the CPCB funded National Air Quality Monitoring Programme (NAMP), the TNPCB monitors ambient air quality in major cities and industrial clusters, at 28 stations in the State.

These stations are located at Chennai (8), Coimbatore (3), Madurai (3), Salem (1), Tiruchirapalli (5), Thoothukudi (3), Mettur (2) and Cuddalore (3). Parameters like Particulate matter PM<sub>10</sub> and PM<sub>2.5</sub>, Sulphur- di - Oxide (SO<sub>2</sub>) and Nitrogen-di-Oxides (NO<sub>2</sub>) are monitored with a frequency of twice a week to have 104 observations in a year as per the CPCB protocol. Air Quality Index (AQI) are arrived and uploaded in the TNPCB website regularly.

In order to cover all the districts under the NAMP, the Board is in the process of establishing additional 24 stations (i.e) three stations each in eight districts viz. Dharmapuri, Kanyakumari, Perambalur, Sivagangai, Thiruvarur, Theni, Villupuram and Thiruvannamalai. These will come into operation during 2021-22.

### 11.2.2. Continuous Ambient Air Quality Monitoring Stations

Urbanization and industrialization have a direct impact on air quality. Therefore to strengthen the AAO monitoring network in the State and to arrive AQI on real-time basis, the TNPCB initially Continuous Ambient Air Ouality installed 34 (CAAQMS). Stations Monitorina The core parameters including PM<sub>10</sub>, PM<sub>2.5</sub>, Sulphur-di-Oxide, Nitrogen-di-Oxide, Ammonia, Ozone, Carbon monoxide, Benzene, Toluene and Xylene are monitored.

The data and the AQI are displayed in the display board installed in respective station besides the Board's website. Apart from this, the Board is also operating one mobile CAAQMS to monitor the air quality at different places in cities during the festival season like Deepavali, Bhogi and also to carry out the survey based on public complaints, court directions etc. The Board has proposed to

procure one more mobile unit during 2021-2022.

#### 11.2.3. Non-Attainment Cities

Based on the NAMP data, the CPCB have 124 cities in the identified country non-attainment cites, where the PM<sub>10</sub> level exceeded the annual average standard. The reasons for high particulate matter is due to movement of vehicles, re-suspension of road dust, burning of solid waste, use of fuels in and commercial establishments, domestic emissions etc. In Tamil industrial Thoothukudi, Trichy and Madurai are listed as non-attainment cities. Action plan to improve the air quality in Thoothukudi is approved by the CPCB and is under implementation through line departments. The action plan for Trichy and Madurai are submitted to the CPCB. Under National Clean Air Programme (NCAP), the Government of India provides funding for improvement of air quality in the non-attainment cities and in the million plus cities of the country.

During the Budget Speech for the year 2021-2022, this Government has announced that TNPCB shall establish continuous ambient air quality monitoring stations in all District headquarters and in towns with the population of more than one lakh, India's first integrated environment monitoring studio will be established for forecasting air quality on a real time basis with an early warning system.

# 11.3. National Ambient Noise Monitoring Network Programme

Under the National Ambient Noise Monitoring Network Programme, CPCB has established Real Time Ambient Noise Monitoring Stations at ten locations in Chennai City covering silence zone, residential, commercial and industrial areas. The stations are at Egmore, T.Nagar, Perambur, Guindy, Triplicane, Pallikaranai, Velachery, Washermanpet, Anna Nagar and Sowcarpet. The data is uploaded in CPCB website.

#### 12.0. Enforcement Mechanism

TNPCB enforces pollution control legislations effectively and ensures the compliance of environmental standards by industries. If any industry is found to violate and pollute the environment, the Board issues show cause notice followed by personal hearing so as to give a chance to rectify defects. If the unit still continues to violate and pollute, the Board issues orders for and stoppage of power supply as closure empowered under Section 33A of the Water (P&CP) Act, 1974 and under Section 31A of the Air (P&CP) Act, 1981. Only when industries rectify the defects and approach for revocation, the Board after necessary inspection and verification, order for revocation of closure issue restoration of power supply. Aggrieved industries can appeal to the Hon'ble Appellate Authority and the Hon'ble National Green Tribunal.

### 12.1. Appellate Authority

Appellate Authority at Chennai was constituted and functioning from the year 2000 under the Chairmanship of a Hon'ble Justice with two technical members. The Authority examines appeals preferred by industries against the orders of the TNPCB, issued under Section 25/26 and 27 of the Water (P&CP) Act, 1974, as amended 1988 and orders issued under section 21 of Air (P&CP) Act, 1981 as amended in 1987.

#### 12.2. National Green Tribunal

The Southern Zone of the National Green Tribunal is functioning at Chennai from the year 2012. Any person aggrieved by the orders of the Appellate Authority and by the order passed by TNPCB / State Government, under Section 28, 29 and 33A of the Water (P&CP) Act, 1974 and under Section

5 of the Environmental (Protection) Act, 1986 can prefer an appeal before the NGT within 30 days of the order passed by the Board / State Government / Appellate Authority. The Board has developed a software module to track the legal cases.

#### 13.0. Grievance Redressal System

In order to redress the environmental pollution related public complaints, the Board has established a separate section in Head Office. The Board also has the facility for filing complaints through an online Grievance Petition Redressal Mechanism.

#### 14.0. Right to Information Act

The Right to Information Act, 2005 enables all citizens to use their fundamental rights to access information from public bodies. In pursuance to the directions of Government of Tamil Nadu, the TNPCB has designated Joint Chief Environmental

Engineer (JCEE) in head office, all the JCEEs (M) in the zonal offices, all DEEs in the district offices and head of laboratories as public information officers (PIOs) to provide information to public under the RTI Act, 2005. The Chief Environmental Engineer at Head office has been designated as the Appellate Authority.

## 15.0. Environmental Training Institute

The Environmental Training Institute (ETI) of TNPCB provides training to the Board staff, industrial representatives, executives of Municipalities, Corporations, line departments and NGOs on pollution control and environmental protection. The Institute has so far trained 327 people in various programmes.

## 16.0. Environmental Awareness Programme

To create awareness among public and to take positive action to protect the environment, the Board conducts various environmental awareness

programmes every year during important days and on festival days including bhogi, world environment day, vinayagar chathurthi, deepavali tiruvannamalai-karthigai mahadeepam and through rallies, environmental guiz competitions, planting tree saplings, campaign through auto rickshaws, distribution of pamphlets, displaying boards in public places, broadcasting in FM Radio and screening of short films through visual media etc. Besides, during deepavali and bhogi festival season, the Board conducts special air quality survey. The Board also monitors the water quality of the water bodies before and after the immersion of vinayagar idols.

### 17.0. Sustainable Development Goal

The **Sustainable Development Goals (SDGs)** are an inter-governmental agreed set of targets relating to International development to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. India is a

signatory of the 2030 Agenda, committed to achieve SDGs. The Goals, Targets and Indicators related to TNPCB and the present status are as follows:

Goal - 6 'Clean Water and Sanitation' Under this Goal will work to improve water quality pollution, bν reducina eliminating dumping and minimizing release of hazardous chemicals and materials. shall also **Efforts** he taken to substantially increase recycle and reuse. In this regard, percentage of industries complying with waste water treatment is set as one of the Indicators, TNPCB mandates highly polluting industries to achieve ZLD system for trade effluents with an aim to recycle treated waste water

**Goal – 9** 'Industries Innovation and Infrastructure' to promote inclusive and

sustainable industrialization by 2030, the Goal mandates to significantly increase industries share of employment and gross domestic product in line with national circumstances and double its share in least developed countries. Towards this, the target is measured with an important indicator relating to measurement of ambient air quality parameters. TNPCB is continuously making efforts to achieve this indicator effectively.

*`Responsible* Goal-12 Consumption Production' under this Goal, it is mandated achieve significant to reduction in the release of harmful chemicals and wastes by 2020.The target is measured by an indicator relating to environmental quality monitoring through monitoring stations.

At present, the Board monitors water quality of inland water bodies at 139 stations, ground water quality at 18 stations, and ambient air quality at 62 stations.

Goal - 13 'Climate Action' the Goal is to improve education, raise awareness and human build institutional capacity climate change mitigation, adaptation, impact reduction and early warning. The Board conducts training programme through the Environmental Training Institute (ETI) and awareness programme through the District Environmental Engineers on regular basis. Nearly 60 training programmes, 190 awareness programmes and 1689 people have been trained till date.

## **18.0.** Ease of Business and Transparency Initiatives

Granting of consent and authorization industries and local bodies is one of the important οf TNPCB. Tο functions make the consent/authorization management process more transparent hassel free, TNPCB and has web based online introduced а and monitoring system management with modules for issue of CTE, CTO and Renewal Consent order. TNPCB has introduced five new online services. Authorization under Solid Management Rules, 2016. Construction and Demolition Waste Rules, 2016, one Management time Authorization under the Hazardous Waste Management Rules, Lead Acid Battery Whole saler registration and Annual compliance Report under Batteries Rules, 2001. This system allows the applicant to file application, provide clarification, payment of consent fee,

receiving of consent orders through online. The system also provides SMS alert at the important stages of process. The applicant can also view the real time status of the application and where and with whom the application is pending.

Similarly TNPCB has also provided an **Online Grievance Redressal System** for the public to make complaints online. People can also view the real time status of their complaint online.

#### Conclusion

Department of Environment and Climate Change will develop a comprehensive strategy to chart a safer and more sustainable future for the state.

> Siva. V. Meyyanathan Minister for Environment - Climate Change and Youth Welfare and Sports Development



Hon'ble Chief Minister Thiru M.K. Stalin reviewed activities of the Environment, Climate Change and Forests Department with Hon'ble Ministers and Senior Officials

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TNPCB's Contribution of Rs. 20 crores towards the Hon'ble Chief Minister's Public Relief Fund for COVID -19 Mitigation Measures



Hon'ble Minister for Environment - Climate Change and Youth Welfare and Sports Development planted 100 numbers of Tree Sapling at Govt.Hr.Sec. School, Nallipalayam, Namakkal Dist.



Hon'ble Minister for Environment - Climate Change and Youth Welfare and Sports Development visits SIGMA Municipal Solid Waste Management Facility at Erode Corporation



**CETP - Textile Unit** 



**Effluent Treatment Tanks** 



**RO - Plant System** 



**Tannery CETP** 



**Segregation of Bio Medical Waste for COVID - 19** 



**Bio Medical Waste Autoclaving Process**