

ANNUAL REPORT & ANNUAL ACCOUNTS

2020 - 2021



**தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம்
TAMILNADU POLLUTION CONTROL BOARD**

ANNUAL REPORT & ANNUAL ACCOUNTS

2020 – 2021



TAMILNADU POLLUTION CONTROL BOARD
76, Mount Salai, Guindy, Chennai – 32

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CHAPTER - 1

INTRODUCTION

Under the provisions of The Water (Prevention & Control of Pollution) Act, 1974 (Central Act 6), the Government of Tamil Nadu constituted the 'Tamil Nadu Prevention and Control of Water Pollution Board' vide G.O. No. 340, Health and Family Welfare Department dated 19.02.1982. The notification was issued in the Tamil Nadu Government Gazette on 27th February 1982 and the Board came into existence on the same day. Subsequently after framing the Tamilnadu Water (Prevention and Control of Pollution) Rules, 1983, the Board was renamed Tamil Nadu Pollution Control Board (TNPCB). The TNPCB functions under the overall administrative control of Environment, Climate Change and Forest Department.

The TNPCB is a regulatory body, enforces the following Acts, Rules and Notifications as amended, in the entire of Tamil Nadu:

- The Water (Prevention and Control of Pollution) Act, 1974
- The Tamil Nadu Water (Prevention and Control of Pollution) Rules, 1983
- The Air (Prevention and Control of Pollution) Act, 1981
- The Tamil Nadu Air (Prevention and Control of Pollution) Rules, 1983
- The Environment (Protection) Act, 1986 and the Rules made thereunder, which includes.
- The Environment (Protection) Rules, 1986
- Manufacture, Storage and Import of Hazardous Chemical Rules, 1989
- Fly Ash Utilization Notification, 1999
- The Batteries (Management and Handling) Rules, 2001
- The Environment Impact Assessment Notification, 2006
- Coastal Regulation Zone Notification, 2019
- The Noise Pollution (Regulation and Control) Rules, 2000
- 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

1.1 FUNCTIONS

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

- To plan a comprehensive programme for the prevention, control and abatement of pollution of streams and wells and 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 collect and disseminate information relating to water and air pollution and the prevention, control or abatement thereof;
- 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 of water, works for the purification thereof and the system for the disposal of sewage or trade effluents or in connection with the grant of any consent as required by the Act;
- To inspect, at all reasonable times, any control equipment, industrial plant or manufacturing process and to give, by order, such directions to such persons as it may consider necessary to take steps for the prevention, control or abatement of air pollution;
- To inspect air pollution control areas at such intervals as it may think necessary, assess the quality of air therein and take steps for the prevention, control or abatement of air pollution in such areas;
- To lay down, modify or annul effluent standards for the sewage and trade effluents and for the quality of receiving waters resulting from the discharge of effluents and to classify waters of the State;
- To lay down, in consultation with the Central Pollution Control Board (CPCB), standards for emission of air pollutants into the atmosphere from industrial

plants and automobiles or for the discharge of any air pollutants into the atmosphere from any other source;

- To evolve economical and reliable methods of treatment of sewage and trade effluents;
- To evolve methods of utilization of sewage and suitable trade effluent in agriculture;
- To evolve efficient methods of disposal of sewage and trade effluents on land;
- To collaborate with CPCB and other reputed research institutions, in organizing the training of persons engaged or to be engaged in programme relating to prevention, control or abatement of water and air pollution and to organize mass education programme relating thereto;
- To encourage, conduct and participate investigations and research relating to problems of water pollution and prevention, control or abatement of water pollution;
- To advise the State Government with respect to the location of any industry, the carrying on of which, is likely to pollute a stream or well or cause air pollution;
- To establish or recognize laboratory or laboratories to enable TNPCB to perform its functions under this section efficiently, including the analysis of samples of water from any stream or well or of samples of any sewage or trade effluents and analysis of ambient air and emission through chimneys of industries;
- To perform such other functions as may be prescribed or as may, from time to time, be entrusted to it by CPCB or the State Government.

As per Rule 37 of the Tamilnadu Water (Prevention and Control of Pollution) Rules, 1983, Annual Report for each year giving true and full account of the activities of the Board during that year shall be prepared and submitted to the Government. Accordingly this Annual Report for the Financial Year 2020-2021 is prepared. The report is presented in the subsequent chapters.

CHAPTER - 2

CONSTITUTION OF THE BOARD

2.1 CONSTITUTION OF TNPCB

As per the provisions of Section 4 of the Water (Prevention & Control of Pollution) Act, 1974, the TNPCB shall consist of the following members:

- a). a Chairman, being a person having special knowledge or practical experience in respect of matters relating to environmental protection or a person having knowledge and experience in administering institutions dealing with the matters aforesaid, to be nominated by the State Government; Provided that the Chairman may be either whole-time or part-time as the State Government may think fit; [As per the orders of the Hon'ble Supreme Court of India in C.A.No.1359/2017, dated 22.09.2017, the Government vide G.O.(Ms).No.45 Environment and Forests (EC.2) Department, dated 13.05.2019, notified the Rules called "The Appointment of Chairman and Member Secretary of the Tamil Nadu Pollution Control Board Rules 2019", specifying the qualification and experience required for the posts of Chairman and Member Secretary].
- b). such number of officials, not exceeding five, to be nominated by the State Government to represent that Government;
- c). such number of persons, not exceeding five, to be nominated by the State Government, from amongst the members of the local authorities functioning within the State;
- d). such number of non-officials, not exceeding three to be nominated by the State Government, to represent the interest of agriculture, fishery or industry or trade or any other interest which, in the opinion of the State Government, ought to be represented;
- e). two persons to represent the companies or corporations owned, controlled or managed by the State Government, to be nominated by the Government;
- f). a full time Member Secretary, possessing qualifications, knowledge and experience of scientific, engineering or management aspects of pollution control, to be appointed by the State Government.

The list of Board Members during the year 2020-2021 is given below:

List of Board Members from 01.04.2020 to 31.03.2021

S. No.	Board Members	Position	From	To
1	Thiru. A.V. VENKATACHALAM, I.F.S., Chairman Tamil Nadu Pollution Control Board, Guindy, Chennai – 600 032.	Chairman	01.04.2020	31.03.2021
2	Thiru. SHAMBHU KALLOLIKAR, I.A.S., Principal Secretary to Government, Environment and Forests Department, Fort St. George, Secretariat, Chennai – 600 009.	Member	01.04.2020	06.06.2020
3	Dr. SANDEEP SAXENA, I.A.S., Additional Chief Secretary to Government, Environment and Forests Department, Fort St. George, Secretariat, Chennai – 600 009.	Member	07.06.2020	31.03.2021
4	Dr. R. ANANDAKUMAR, I.A.S., Special Secretary to Government Finance Department, Secretariat, Fort St. George, Chennai – 600 009.	Member	01.04.2020	15.10.2020
5	TMT. REETA HARISH THAKKAR, I.A.S., Special Secretary to Government, Finance Department, Secretariat, Fort St. George, Chennai – 600 009.	Member	16.10.2020	31.03.2021
6	Thiru. CHANDRA SEKHAR SAKHAMURI, I.A.S., Director, Directorate of Town and Country Planning, Chengalvarayan Building, IV Floor, 807, Anna Salai, Chennai – 600 002.	Member	01.04.2020	31.05.2020
7	Thiru. B.MURUGESH, I.A.S., Director, (FAC) Directorate of Town and Country Planning, Chengalvarayan Building, IV Floor, 807, Anna Salai, Chennai – 600 002.	Member	01.06.2020	23.10.2020
8	Thiru. B. GANESAN, I.A.S., Director, Directorate of Town and Country Planning, Chengalvarayan Building, IV Floor, 807, Anna Salai, Chennai – 600 002.	Member	24.10.2020	31.03.2021
9	Thiru. M.V.SENTHIL KUMAR, M.E., Director (FAC) Directorate of Industrial Safety and Health, T.S.No.47/1, SIDCO Industrial Estate, Guindy, Chennai – 600 032.	Member	01.04.2020	31.03.2021
10	Dr. K. KOLANDASWAMY, M.B.B.S., D.P.H, D.I.H, M.A.E., Director of Public Health and Preventive Medicine, Chennai – 600 006.	Member	01.04.2020	30.04.2020

11	Dr. T.S. SELVAVINAYAGAM, M.D., DPH, DNB, Director of Public Health and Preventive Medicine, Chennai – 600 006.	Member	01.05.2020	31.03.2021
12	Dr. NEERAJ MITTAL, I.A.S., Managing Director & C.E.O Tamil Nadu Industrial Guidance and Export Promotion Bureau, 19-A, Rukmani Lakshmi pathy Salai, Egmore, Chennai -600 008.	Member	01.04.2020	31.03.2021
13	Tmt. H.PRABHAVATHY, B.E., General Manager (Project) (i/c), SIPCOT, 194, Marshall Road, Chennai – 600 008.	Member	01.04.2020	31.03.2021
14	Thiru. D. SEKAR, M.Tech., Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai – 600 032.	Member Convener	01.04.2020	28.05.2020
15	Thiru. R. VIJAYABASKARAN, M.E., M.B.A., Member Secretary (i/c), Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai – 600 032.	Member Convener	29.05.2020	02.11.2020
16	Dr. S. SELVAN, M.E., M.B.A., Ph D., Member Secretary (i/c), Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai – 600 032.	Member Convener	03.11.2020	31.03.2021
17	Thiru. K. DAKSHINAMOORTHY, 1/23, Chinnapuliur, Ezhavamalai Post, Bhavani Taluk, Erode 638 316.	Non- Official member	01.04.2020	31.03.2021
18	Thiru. A. ALAGARASAN, B.Sc., 78, Sabapathi Street, Kalarampatti, Erumapalayam Post, Salem 636 115.	Non- Official member	01.04.2020	31.03.2021
19	Thiru. N. TAMILMANI, BA., 4/23, Ammapalayam, S.Attiyampatti Post, Mallur via, Salem 636 203	Non- Official member	01.04.2020	31.03.2021

2.2 ORGANISATIONAL SET UP

2.2.1 Head Office

The organization structure of the TNPCB is a three-tier system, consisting of a Head Office, Zonal Offices and District Offices (Organization chart is in **Annexure-1**). The Head Office located at Chennai is headed by the Chairman of the Board. The Member Secretary is the Executive Head and is vested with powers as defined by the Board/Chairman. Functional divisions of the Head Office spread as Planning and Development Wing, Board Meeting Wing, Personnel and Administration Wing, Technical Wing, Finance and Accounts Wing besides Internal Audit Wing, Legal

Wing, Construction Wing, Laboratory, Complaint Redressal Cell and Computerized Online Monitoring Section. The Head of these sections are senior officers and they report to the Chairman through the Member Secretary.

2.2.2 Zonal and District Offices

There are Seven Zonal Offices headed by Joint Chief Environmental Engineers (Monitoring) at Chennai, Vellore, Salem, Coimbatore, Trichy, Madurai and Tirunelveli and there are 38 District Offices headed by District Environmental Engineers. Details of the Zonal Offices and details of the District Offices falling under the jurisdiction are as follows:

S. No.	Zonal Offices, O/o. JCEE (Monitoring)	Jurisdiction Offices, O/o. District Environmental Engineer
1	Chennai First Floor, 950/1, Poonamallee High Road, Arumbakkam, Chennai – 600 106	Ambattur 77-A, South Avenue Road, Ambattur Industrial Estate, Ambattur Taluk, Thiruvallur District, Chennai – 600 058.
		Chennai First Floor, 950/1, Poonamallee High Road, Arumbakkam, Chennai – 600 106.
		Gummidipoondi 88A, SIPCOT Industrial Complex, Gummidipoondi – 601201
		Maraimalai Nagar Maraimalai Adigalar Street, Next to Municipal Office, Maraimalai Nagar, Chennai – 603 209.
		Sriperumbudur Plot No.CP-5B, SIPCOT Industrial Growth Centre, Vandalur, Wallajahbad Road, Oragadam, Sriperumbudur Taluk, Kancheepuram District – 603109
		Thiruvallur Master plan complex, Adjacent to sub Treasury Near Tollgate, Thiruvallur-602001.
2	Vellore Auxilium College Road, (Opposite to Auxilium College) Gandhi Nagar, Vellore – 632 006.	Dharmapuri SF.No.415/1,Adhiyaman Kottai - Hosur Bypass Road, A.Reddihalli village, Dharmapuri Taluk, Dharmapuri District - 636 809.
		Hosur Plot No.:140A, SIPCOT Industrial Complex, Hosur – 635 126.
		Thiruvannamalai Collectorate Master Plan Complex, Venkikal, Thiruvannamalai District -606 604.
		Vellore Auxilium College Road, (Opposite to Auxilium College) Gandhi Nagar, Vellore – 632 006
		Villupuram District Collectorate Master Plan Complex, Back side of Taluk office, Villupuram – 605 602.
		Vaniyambadi 392, Plot No.PP2, SIDCO Industrial Estate, Vaniyambadi – 635 751.

3	Salem No.9, 4 th Cross Street, Brindhavan Road, Fairlands, Salem – 636 016.	Erode CMP Plot, SIDCO Industrial Estate, Chennimalai Road, Erode – 638 001.
		Karur No.26, Ramakrishnapuram West, Karur – 639 001.
		Kumarapalayam Door No.1-8/8, Periyar Nagar Rajam Theatre Road Olapalayam, Kumarapalayam, Namakkal District – 638183
		Namakkal Collectorate Campus, Near Tamil Nadu Civil Supply Corporation, Namakkal – 637 003.
		Perundurai Plot No.: J-2(W), SIPCOT Industrial Growth Centre, Near SIPCOT Project Office, Perundurai – 638052
		Salem Siva Tower, Post Box No.: 457, No.: 1/276, Meyyanur Main Road, Salem – 636 004.
4	Coimbatore Plot No.E-55A, SIDCO Industrial Estate, Pollachi Main Road, Kurchi, Coimbatore – 641 021.	Coimbatore (North) No.: 5, Ramasamy Nagar, Near Fire Service Station, Kavundampalayam, Coimbatore – 641 030.
		Coimbatore (South) Plot No.: E-55A, SIDCO Industrial Estate, Pollachi Main Road, Kurchi, Coimbatore – 641 021.
		Ooty Additional Collectorate Building, Block-II Finger Post, The Nilgiris – 643005
		Tiruppur (North) Kumaran Complex, Kumaran Road, Tiruppur – 641 601.
		Tiruppur (South) 12A, Pollachi By-Pass Road, Palladam, Tiruppur – 641 664.
5	Trichy No.: 25, Developed Plots, Thuvakudy, Trichy – 620 015.	Ariyalur SF.No.4/326, Trichy Main Road, Keelapalur Village, Ariyalur Taluk, Ariyalur District - 621 707
		Cuddalore Plot No.: A-3, SIPCOT Industrial Complex, Kudikadu, Cuddalore – 607 005.
		Nagapattinam, District Collectorate, Master Plan Complex, Nagapattinam-611 001.
		Pudukottai SIPCOT Industrial Complex, Thiruvengaivasal, Pudukkottai – 622 002.
		Thanjavur Plot No.: 23, T.S. No.: 3303/1, SIDCO Industrial Complex, Nanchikottai Salai, Opposite to Ulavar Santhai, Thanjavur – 613 006.
		Trichy No.: 25, Developed Plots, Thuvakudy, Trichy – 620 015.
6	Madurai SIDCO Industrial Estate, Kappalur, Thirumangalam Taluk, Madurai – 625 008.	Dindigul Collectorate Complex, Dindigul – 624 004.
		Madurai SIDCO Industrial Estate, Kappalur, Thirumangalam Taluk, Madurai – 625 008
		Ramanathapuram 1/880, Sait Ibrahim Nagar 1 st street, Bharathi Nagar South, Ramanathapuram – 623 504
		Sivagangai Collectorate Complex, Sivagangai – 630561.
		Theni SAR Complex, Door No.: 15/4, 12A/3, Back to National Theatre, Theni District – 625 531.

7	Tirunelveli Tamil Nadu Pollution Control Board, Plot No.: 30/2, SIDCO Industrial Estate, Pettai, Tirunelveli – 627010	Nagercoil No.: 318/46A, Water Tank Road, Nagercoil, Kanyakumari District – 629 001
		Tirunelveli 30/2, SIDCO Industrial Estate, Pettai, Tirunelveli – 627 010.
		Thoothukudi C7 & C9, SIPCOT Industrial Complex, Meelavittan, Thoothukudi – 628 008.
		Virudhunagar No.: 23, Master Plan Area, Sathur Road, Collectorate, Virudhunagar – 626 002.

In addition to the above, there are two Flying Squads headed by the Environmental Engineers functioning at Erode and Tiruppur respectively. These flying squads are formed as per the G.O.(3D) No.10, Environment and Forests (EC.2) Department, dated: 01.03.2011, for effective monitoring of the Effluent Treatment Plants (ETPs) / Common Effluent Treatment Plants (CETPs) / Zero Liquid Discharge (ZLD) Systems and protect the water bodies from pollution.

S. No.	Address
1	Flying Squad Tiruppur, Tamil Nadu Pollution Control Board, 16, Rayapuram East Street, Tiruppur – 641601
2	Flying Squad Erode, Tamil Nadu Pollution Control Board, CMP Plot, SIDCO Industrial Estate, Chennimalai Road, Erode – 638 001.

2.2.3 Laboratories

The TNPCB has established 16 Laboratories at two levels viz. Advanced Environmental Laboratories (AELs) and District Environmental Laboratories (DELs) to assist the Board in monitoring the industries and the ambient air & water quality of the State.

S. No.	Name and Address of the Laboratory	Jurisdiction covered	Analytical Facilities Available
Advanced Environmental Laboratories			
1	AEL – Chennai TNPCB, 76, Mount Salai, Guindy, Chennai – 600 032.	Chennai, Ambattur, Sriperumbud ur and Tiruvallur	AOX analyzer, Atomic Absorption Spectrophotometer, Bacteriological Incubator, BOD Incubator, CO Analyzer, COD Digester, Conductivity meter, Dissolved Oxygen Meter, Flame Photometer, FTIR, Gas Chromatograph, ICP-MS, Mercury Analyzer, Muffle Furnace, Ozone Analyzer, pH meter, PM _{2.5} Sampler, Respirable Dust Sampler PM ₁₀ , Roto Evaporator, Sound Level Meter, Stack Monitoring kit, TKN analyzer, Turbidity meter, UV Visible Spectrophotometer, VOC analyzer, Wind monitoring kit.

2	AEL - Coimbatore 136-D, Swamy Iyer New Street, Ganga Garden, Coimbatore - 641 001.	Coimbatore (North), Coimbatore (South) & Nilgiris	Ambient Ozone Analyser, Analytical Balance, Atomic Absorption Spectrometer with Graphite furnace, Automatic Weather station, BOD Incubator, CO analyser, COD Digester, Conductivity Meter, PM _{2.5} Samplers, Flame photometer, Handy Sampler, Micro Balance, pH Meter, RDS Sampler PM ₁₀ , Sound Level Meter, Stack Monitoring kit, TKN analyser, UV visible spectrophotometer, Zero Head space Extractor Filtration system.
3	AEL - Cuddalore Plot No. A3, SIPCOT Industrial Complex, Kudikadu, Cuddalore – 607 005	Cuddalore, Villupuram	Analytical Balance, Atomic absorption spectrometer, BOD Incubator, CO analyser, COD Digester, Conductivity Meter, Fine Particulate Sampler PM _{2.5} , Flame photometer, Humidity Chamber, Micro Balance, pH Meter, RDS Sampler PM ₁₀ , Sound Level Meter, Stack Monitoring kit, TKN analyser, UV visible spectrophotometer.
4	AEL - Madurai SIDCO Industrial Estate, Kappalur, Thirumangalam Taluk, Madurai – 625 008.	Madurai, Sivagangai, Virudhunagar, Ramanathapuram	Analytical Balance, Atomic Absorption Spectrometer, Autoclave, Bacteriological Incubator, BOD Incubator, CO Analyser, COD digester, Conductivity Meter, Fine Particulate Sampler PM _{2.5} , Flame Photometer, Muffle furnace, Nitrogen Estimation system, Ozone Analyser, pH Meter, RDS Sampler PM ₁₀ , Semi-Micro Balance, Sound Level Meter, Stack Monitoring Kit, Top Pan Balance, Turbidity meter, U.V. Visible Spectrophotometer, Zero Head Space Extractor.
5	AEL - Salem P.B.No.457, Siva Tower, 1/276, Meyyanur Main Road, Salem – 635 004.	Salem, Erode, Namakkal, Perundurai and Dharmapuri	Analytical Balance, Atomic Absorption Spectrophotometer, Bacteriological Incubator, BOD Incubator, CO Analyser, COD Digester, Conductivity Meter, DO Meter, Flame Photometer, Flue Gas Analyser, Muffle Furnace, Ozone Analyser, pH Meter, PM _{2.5} Sampler, Respirable Dust Sampler PM ₁₀ , Sound Level Meter, Stack Sampler, TKN Digester, Turbidity Meter, UV - VIS Spectrophotometer, VOC Monitor.
6	AEL - Vellore Auxilium Colleges Road, (Opposite to Auxilium College), Gandhi Nagar, Vellore - 632 006	Vellore, Vaniyambadi, Thiruvannamalai	Atomic Absorption Spectrophotometer, BOD Incubator, CAAQM System, Centrifuge, COD Digester, Conductivity Meter, Dissolved Oxygen Meter, Fine Particulate sampler PM _{2.5} , Flame Photometer, Flue Gas Analyser, Gas Chromatograph, Micro Balance, Muffle Furnace, pH Meter, Respirable Dust Sampler APM 460, Sound Level Meter, Spectrophotometer, Stack Monitoring kit, Top Pan Balance, Total Kjeldhal Nitrogen Digester.
7	AEL - Trichy 25, Developed Plots, Thuvakkudi, Trichy - 15.	Trichy, Pudukottai, Nagapattinam, Thanjavur, Ariyalur	Atomic Absorption Spectrophotometer with graphite furnace, Bacteriological Incubator, BOD Incubator, COD Digester, Conductivity Meter, Dissolved Oxygen Meter, Fine Particulate Samplers PM _{2.5} , Flame Photometer, Flue Gas Analyser, Gas Chromatograph, Micro Balance, pH Meter, Research Centrifuge, Respirable Dust Sampler PM ₁₀ , Rota Evaporator, Scanning Spectrometer, Sound Level Meter, Stack Monitoring Kit, Total Kjeldhal Nitrogen Analyser, UV Double beam spectrophotometer.

8	AEL - Tirunelveli 30/2, SIDCO Industrial Estate, Pettai, Tirunelveli - 627 010.	Tirunelveli, Nagercoil	Analytical Balance, Atomic Absorption Spectrophotometer, Auto Clave, Bacteriological Incubator, BOD Incubator, Centrifuge, COD Digester, Conductivity Meter, Dissolved Oxygen Meter, Dry Gas Meter, Fine Particulate Sampler PM _{2.5} , Flame Photometer, Gas Chromatograph, Handy Air Sampler, Micro Balance, Muffle Furnace, pH Meter, Respirable dust Sampler PM ₁₀ , Sound Level Meter, Spectrophotometer, Stack Monitoring kit, Top Pan Balance, Total Kjeldhal Nitrogen Unit, Turbidity Meter.
District Environmental Laboratories			
9	DEL - Ambattur 77 A, South avenue road, Ambattur Industrial Estate, Ambattur, Chennai – 600 058.	Ambattur, Tiruvallur	Bacteriological Incubator, BOD Incubator, CAAQM system with automatic weather monitoring station, COD Digester, Conductivity Meter, Dissolved Oxygen Meter, Fine Particulate Sampler PM _{2.5} , Flame Photometer, Muffle Furnace, pH Meter, Respirable Dust Sampler PM ₁₀ , Semi Micro Balance, Sound Level Meter, Spectrophotometer, Stack Monitoring kit, Turbidity Meter.
10	DEL, Dindigul Collector office Complex, Dindigul - 624 004.	Dindigul, Theni, Karur	Analytical Balance, Bacteriological Incubator, BOD Incubator, COD Digester, Conductivity Meter, Dissolved Oxygen Meter, Flame Photometer, Micro Balance, Muffle Furnace, pH Meter, PM _{2.5} Sampler, RDS Sampler PM ₁₀ , Sound Level Meter, Spectrophotometer, Stack Monitoring Kit, Turbidity Meter.
11	DEL - Hosur 149-A, SIPCOT Complex, Near Dharga, Hosur - 635 126.	Hosur, Krishnagiri	Analytical Balance, Bacteriological Incubator, BOD incubator, COD digester, Conductivity meter, Dissolved Oxygen Meter, Dry Gas meter, Fine Particulate Sampler PM _{2.5} , Flame Photometer, Gas Chromatograph, Handy Sampler, Micro Balance, Microwave Digester, Muffle Furnace, Orion Analyser, pH meter, Research Centrifuge, Respirable Dust Sampler PM ₁₀ , Scanning U.V. Double Beam Spectrophotometer, Sound Level Meter, Stack Monitoring Kit, TKN Digester, Top Pan Balance, Turbidity meter, Wind Monitoring system.
12	DEL - Manali 950/1 Poonamallee High Road, Arumbakkam, Chennai - 600106.	Manali, Ambattur	Analytical Balance, BOD Incubator, COD Digester, pH Meter, Conductivity Meter, Flame Photometer, Flue Gas Analyser, Kjeldhal Nitrogen Unit, Muffle Furnace, PM _{2.5} Sampler, RDS Sampler PM ₁₀ , Sound Level Meter, Stack Monitoring Kit, Top Pan Balance, UV Visible Spectrophotometer, VOC Analyser
13	DEL - Maraimalai Nagar Maraimalai Adigalar Street, Near Maraimalai Nagar Municipality, Kancheepuram Dist. Maraimalai Nagar- 603 209	Maraimalai Nagar	BOD Incubator, COD digester, Conductivity meter, Dissolved Oxygen Meter, Flame Photometer, Fine Particulate Sampler PM _{2.5} , Micro Balance, Muffle Furnace, Respirable Dust Sampler PM ₁₀ , Sound Level Meter, Stack Monitoring Kit, Top Pan Balance, Total Kjeldhal Nitrogen Analyser, UV - VIS Spectrophotometer, VOC Monitor.

14	DEL - Thoothukudi C7-C9, SIPCOT, Industrial Complex, Meelavittan Village, Thoothukudi-628 008	Thoothukudi	Automatic Weather monitoring, BOD incubator, CAAQM system, COD Digestor, Conductivity Meter, Dissolved Oxygen meter, Fine Particulate Sampler PM _{2.5} , Flame photometer, Flue Gas Analyser, Micro Balance, Muffle Furnace, pH Meter, Respirable Dust Sampler PM ₁₀ , Scanning UV Double Beam Spectrometer, Sound Level Meter, Total Kjeldhal Nitrogen Unit, Turbidity Meter, Wind monitoring system
15	DEL - Tiruppur Kumaran Commercial Complex, 2 nd Floor, Kumaran Road, Tiruppur - 641 601.	Tiruppur (North), Tiruppur (South), Perundurai, Erode, Flying Squad Tiruppur	Autoclave, Atomic Absorption Spectrophotometer, BOD incubator, Conductivity meter, Dissolved Oxygen Meter, Flame Photometer, Fine Particulate Sampler PM _{2.5} , Muffle Furnace, pH meter, Respirable Dust Sampler PM ₁₀ , Semi micro balance, Sound Level Meter, Spectrophotometer, Stack Monitoring kit.
16	DEL – Perundurai No.J2 (W) near SIPCOT Arch, Kovai Main Road, Olappalayam – PO, Perundurai – 638052.	Perundurai, Erode and Flying Squad Erode	BOD Incubator, COD digester, Conductivity meter, Deep freezer, Dissolved Oxygen Meter, Fine Particulate Sampler PM _{2.5} , Flame Photometer, Flue gas analyser, Hot Air Oven, Muffle Furnace, pH meter, Respirable Dust Sampler PM ₁₀ , Refrigerator, Semi micro balance, Stack monitoring kit, TKN Analyser, Turbidity Meter, UV double beam spectrophotometer, Water bath.

The AELs at Chennai, Coimbatore, Cuddalore, Madurai and Salem have got NABL (National Accreditation Board for Testing and Calibration Laboratories accreditation as per ISO / IEC 17025:2005. During the year 2020--2021, 22005 samples of water, sewage and trade effluents were collected and analysed. Stack monitoring and ambient air quality survey was conducted in 1300 units. Laboratory wise details are given in [Annexure – 2](#)

2.3 DETAILS OF STAFF STRENGTH

The TNPCB is functioning with 998 Sanctioned Posts including Engineers, Scientists, Administration, Accounts and Miscellaneous Staffs. Details of staff strength as on 31.03.2021 are given below:

S. No.	Designation	Sanctioned Post	Filled Post	Vacant Post
1	Chairman	1	1	-
2	Member Secretary	1	1	-
3	Engineering Service	265	173	92
4	Engineering Subordinate Service	12	6	6
5	Scientific Service	126	50	76

6	Scientific Subordinate Service	90	55	35
7	General Service	41	20	21
8	General & Subordinate Service	370	244	126
9	Miscellaneous Services	11	-	11
10	Basic Services	79	18	61
11	Deputation - Director Labs & Financial Advisor	2	1	1
	Total	998	569	429

The break-up details of staff strength in each service is given below: .

Sl.No.	Name of the post	Sanctioned post	Present strength	Vacant
1.	Chairman	1	1	-
2.	Member Secretary	1	1	-
	Total	2	2	-
Engineering Service				
1.	Chief Environmental Engineer	1	1	0
2.	Additional Chief Environmental Engineer	2	2	0
3.	Joint Chief Environmental Engineer	12	11	1
4.	Environmental Engineer	52	52	0
5.	Assistant Environmental Engineer	48	48	0
6.	Assistant Engineer	149	59	90
7.	Assistant Engineer (Auto)	1	-	1
	Total	265	173	92
Engineering Subordinate Service				
1.	Junior Engineer (Electrical)	1	1	-
2.	Junior Engineer (Civil) (Technical Assistant (Civil) upgraded)	1	-	1
3.	Assistant Draughtsman	3	-	3
4.	Electrician	6	4	2
5.	Technical Assistant	1	1	-
	Total	12	6	6
As per G.O Ms.No.75 dated 14.07.16 Junior Engineer (civil) the post shall be reverted back to Technical Assistant either on the superannuation or on the exit of the individual from TNPCB.				
Scientific Service				
1.	Deputy Director (Lab)	2	2	-
2.	Assistant Director (Lab)	10	6	4
3.	Chief Scientific Officer	5	5	-
4.	Deputy Chief Scientific Officer	29	29	-
5.	Environmental Scientist	77	8	69

6.	Senior Meteorologist	1	-	1
7.	Meteorologist	2	-	2
	Total	126	50	76
Scientific Subordinate Service				
1.	Jr. Environmental Scientist	6	4	2
2.	Field Assistant	56	33	23
3.	Lab Assistant	28	18	10
	Total	90	55	35
General Service				
1.	Senior Manager (F & A)	1	-	1
2.	Manager	2	1	1
3.	Manager (Law)	1	-	1
4.	Law Officer	1	-	1
5.	Additional Manager	6	2	4
6.	Court Master	1	-	1
7.	Deputy Manager	29	17	12
	Total	41	20	21
General Subordinate Service				
1.	Assistant Manager	55	51	4
2.	General Assistant	80	60	20
3.	Assistant	77	47	30
4.	Private Secretary	3	1	2
5.	Steno-Typist (Grade-I)	5	4	1
6.	Steno-Typist(Grade-II)	17	10	7
7.	Steno-Typist(Grade-III)	4	4	0
8.	Typist	57	47	10
9.	Driver	56	20	36
10.	Motor cycle messenger	1	-	1
11.	Telephone Operator	2	-	2
12.	Record Clerk	13	-	13
	Total	370	244	126
Miscellaneous Service				
1.	Statistical Officer	1	-	1
2.	Assistant Statistical Officer	1	-	1
3.	Librarian (Grade-I)	1	-	1
4.	Librarian (Grade-II)	1	-	1
5.	Programmer	1	-	1
6.	Assistant Programmer	2	-	2

7.	Data Entry Operator	4	-	4
	Total	11	0	11
Basic Service				
1.	Office Assistant	74	13	61
2.	Sweeper	4	4	-
3.	Watchman	1	1	-
	Total	79	18	61
Deputation Staff				
1.	Director Labs	1	-	1
2.	Financial Advisor	1	1	-
	Total	2	1	1

Year wise staff strength is given in [Annexure-3](#).

During the year 2020-21, the Board has issued orders for new appointments of 46 Typists and 35 Assistants by selecting through online examination and interview. The Board also issued orders for one appointment on compassionate ground, promotion orders to 28 Engineering Service, 18 General Service and General Subordinate Services, and three Scientific Service and Scientific Sub ordinate Services personnels. During this period three employees have retired by Superannuation, Seven employees retired on VRS, and five employees deceased.

Details of Pensioners and Family Pensioners as on 31.03.2021

Sl. No.	Details	As on 31.03.2020	During the year 2020-21	Total As on 31.03.2021
1	Pensioners	362	10	372
2	Family Pensioners	71	9	80
	Total	433	19	452

CHAPTER - 3

CONSTITUTION OF THE COMMITTEES BY THE BOARD

3.1 CONSTITUTION OF THE COMMITTEES BY THE BOARD

One of the main functions of the TNPCB is to issue consent to the industries under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 and also to issue authorization to the units under various Rules notified under Environment (Protection) Act, 1986. For efficient and effective implementation of Acts and Rules and to have smooth functioning, the Board has constituted various Committees under Section 9 of the Water (Prevention and Control of Pollution) Act, 1974 and under Section 11 of the Air (Prevention and Control of Pollution) Act, 1981, at the Head Office and at the level of Zonal and District Offices. These Committees are as follows:

3.1.1 Technical Sub-Committee (TSC)

The Board has constituted a Technical Sub-Committee (TSC) vide B.P.No.1, dated 06.02.2018 in TNPCB Head Office, Chennai to decide on grant of Consent To Establish (CTE) and Consent To Operate (CTO) to the 17 Category Industries and EIA attracting projects. The composition of the Committee is given below

1	Chairman, TNPCB	Chairman
2	Member Secretary, TNPCB	Convener
3	Director of Industrial Safety and Health, Chennai	Member
4	Director of Public Health and Preventive Medicine	Member
5	All HoDs of Technical Section	Member

3.1.2 Consent Clearance Committee (CCC)

The Board has constituted a Consent Clearance Committee vide No. TNPCB/Per/P1/18730/2007, dated 02.07.2007 and re-constituted vide B.P. No. 63 dated 28.11.2017 in TNPCB Head Office, Chennai to decide on grant of CTE and CTO to Red Large and Red Medium industries. The composition of the Committee is as follows

1	Member Secretary, TNPCB	Chairman
2	Additional Chief Environmental Engineers (ACEEs), TNPCB	Member
3	Joint Chief Environmental Engineers (JCEEs), TNPCB	Member

3.1.3 Zonal Level Consent Clearance Committee (ZLCCC)

The Board vide B.P.Ms.No.4, dated 18.03.2009 (as amended) has constituted ZLCCCs to decide on grant of CTE and CTO to Red Small, Orange Large, Orange Medium and Green Large industries. The composition of the Committee is as follows

1	Joint Chief Environmental Engineer (Monitoring) (JCEE (M))	Committee - Head
2	All the District Environmental Engineers (DEEs) of the Zone	Members
3	Environmental Engineer (EE) – Zonal Office	Convener

3.1.4 District Level Consent Clearance Committee (DLCCC)

The Board vide B.P.No.36, dated 05.10.2012 (as amended) has constituted DLCCCs to decide on grant of CTE and CTO to Orange Small, Green Medium and Green Small category industries. The composition of the Committee is as follows:

1	District Environmental Engineer (DEE)	Committee - Head
2	Assistant Environmental Engineer (AEE) in the District Office	Member & Convener
3	All Assistant Engineers (AEs) in the District Office	Members

3.2 POWER DELEGATION TO THE COMMITTEES

In order to dispose off the applications made by industries for the issue of Consent / Authorizations / Registration expeditiously, the Board has delegated the powers to the officers at TSC, CCC, ZLCCC & DLCCC vide B.P.No.63, dated 28.11.2017 and B.P. No.14 dated 18.02.2020 as follows

Power delegation for the issue of Consent Orders and for renewal of Consent Orders (B.P.No.63, dated 28.11.2017)

S. No.	Particulars	17-Category	Red-Large	Red-Medium	Red-Small	Orange-Large	Orange-Medium	Green-Large	Orange-Small & Green Medium & Green Small
1	Consent to Establish & Expansion	TSC	CCC	CCC	ZLCCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
1A.	Consent to Establish - Extension	CCC	CCC	CCC	ZLCCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
2	Consent to Operate & Expansion	TSC	CCC	CCC	ZLCCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
3	EIA & CRZ attracted Projects CTE & Expansion	TSC	TSC	CCC	CCC	CCC	CCC	CCC	CCC

3A.	EIA & CRZ attracted Projects CTE & Extension	CCC	CCC	CCC	CCC	CCC	CCC	CCC	CCC
4	EIA & CRZ attracted Projects CTO & Expansion	TSC	CCC	CCC	CCC	CCC	CCC	CCC	CCC
5	CRZ alone attracting Projects CTE & Expansion	TSC	TSC	CCC	ZLCCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
5A.	CRZ alone attracting Projects CTE - Extension	CCC	CCC	CCC	ZLCCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
6	CRZ alone attracting Projects CTO & Expansion	TSC	CCC	CCC	ZLCCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
7	Consent Renewal	Chairman	MS	MS	DEE	DEE	DEE	DEE	DEE
8	Fresh consent for Name Change, Changes in stack for DG set, Merger of adjacent units without any changes in existing consent etc.,	MS	MS	MS	ZLCCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
9	For any expansion projects of highly polluting industries those are attracting the G.Os 213 & 127, the Issue of Consent will be considered by placing it in TSC in the case of Red Large, CCC in the case of Red Medium and ZLCCC in the case of Red Small followed by recommending the project in Board meeting for obtaining G.Os relaxation from Government. After getting the G.O relaxation, CTE will be issued by Chairman in the case of Red Large, Member Secretary in the case of Red Medium and DEE in the case of Red Small.								

**Power delegation for the issue of Authorization, Pass Book and Registration
(B.P.63, dated 28.11.2017 & B.P.No.14 dated 18.02.2020)**

Sl. No	Particulars	Function	17 Category (Large & Medium scale only)	Red Large	Red Medium	Red Small	Orange Large & Medium	Orange Small & All Green
1	First Time & subsequent H&OW / BMW/ SW/E- Waste/C&D	Inspection Authority	JCEE(M)	DEE	DEE	JE	JE	JE
		Approving Authority	M.S	M.S	M.S	JCEE (M)	JCEE (M)	DEE

	Waste Authorization & amendments.	Issuing Authority	Sector JCEE	Sector JCEE	Sector JCEE	JCEE(M)	JCEE(M)	DEE
2	Authorization & Pass Book for actual users [Under Rule 9 & Rule 13(2) - Part D Schedule 3 of H&OW Rules 2016]	Inspection Authority	JCEE(M)	DEE	DEE	JE	JE	JE
		Approving Authority	M.S	M.S	MS	MS	MS	MS
		Issuing Authority	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE
3	Authorization & Pass Book for list of commonly recyclable Hazardous Waste as per Schedule IV of H&OW Rules	Inspection Authority	JCEE(M)	DEE	DEE	JE	JE	JE
		Approving Authority	M.S	M.S	MS	MS	MS	MS
		Issuing Authority	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE
4	H&OW Rules One time Authorization of Traders for Import – All category	Inspection Authority	DEE	DEE	DEE	DEE	DEE	DEE
		Approving Authority	MS	MS	MS	MS	MS	MS
		Issuing Authority	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE
5	Plastic Registration – All Category	Inspection Authority	JE	JE	JE	JE	JE	JE
		Approving Authority	DEE	DEE	DEE	DEE	DEE	DEE
		Issuing Authority	DEE	DEE	DEE	DEE	DEE	DEE
6	Battery Registration to Dealers	DEE	DEE	DEE	DEE	DEE	DEE	DEE

MS – Member Secretary

JCEE(M) – Joint Chief Environmental Engineer (Monitoring)

JCEE(Sector) - Joint Chief Environmental Engineer (Sector)

DEE – District Environmental Engineer

JE – Jurisdiction Engineer

Note:

- 1). Inspection Authority means - the officer whose I.R. shall be considered for issue of Authorization, Registration etc.,
- 2). Approving Authority means – authority who takes decision on issue of Authorization, Registration
- 3). Issuing Authority means - authority issuing Authorization, Registration after getting necessary approval from Approving Authority

The detail of meetings conducted by the committees during the year 2020-21 is given below:

Committees	Total No. of meetings	Total No. of subjects placed in the meetings	No. of subjects approved	No. of subjects for which additional details called, rejected, returned,
Technical Sub-Committee	7	80	71	9
Consent Clearance Committee	9	240	232	8
Zonal Consent Clearance Committee	65	1160	1151	9
District Level Consent Clearance Committee	955	7443	7213	230
Total	1036	8923	8667	256

Note: DLCCC subjects include Auto Renewal Applications.

The minutes of meeting of the above committees are uploaded in TNPCB web site periodically.

3.3 POLLUTION LOAD ASSESSMENT COMMITTEE (PLAC)

The Ministry of Environment, Forest and Climate Change, Government of India have notified an amendment in the EIA Notification, 2006 vide S.O.3518 (E), dated 23rd November 2016. As per the notification, TNPCB has constituted PLAC vide Proceeding No. TNPCB / F.004987 / 2017, dated 02.11.2017 to examine the applications received from the units seeking 'No Increase In Pollution Load Certificate'.

S. No.	Name and Designation of Officer	Committee
1.	Chief Environmental Engineer, TNPCB, 76, Mount Salai, Guindy, Chennai – 600 032	Chairman
2.	Zonal Officer, CPCB-South Zonal Office 1 st & 2 nd Floors, Nisarga Bhavan, A-Block, Thimmaiah Main Road, 7 th D-Cross Shivnagar, Bengaluru – 560 079	Member
3.	Dr. P. Sessa Talpa Sai, Professor–Department of Chemical Engineering, I.I.T Madras, Chennai–600 036	Expert Member

4.	Dr. S. Sivanaesan, Professor & Dean–A.C. Tech, Anna University, Chennai–600 025	Expert Member
5.	Dr. N. Balasubramanian, Professor–Chemical Engineering Department, A.C. Tech, Anna University, Chennai–600 025	Expert Member
6.	Dr. P. Shanmugam, Senior Principal Scientist, Environment Engineering Department, C.L.R.I, Chennai–600 025	Expert Member
7.	Joint Chief Environmental Engineer, (Sector HOD), Tamil Nadu Pollution Control Board, Chennai – 600 032	Convener

During the year 2020-2021, the Pollution Load Assessment Committee has examined the following proposals.

S. No.	Name of the industries	Meeting held on
1	M/s. Kothari Chemicals Ltd., Sathangadu Village, Manali, Chennai 68	29.12.2020
2	M/s. Kawman Pharma, (A Division of K.P. Manish Global Ingredients Pvt. Ltd.), SIPCOT Industrial Complex, Kudikadu Village, Cuddalore District	29.12.2020
3	M/s. Adani Ports and Logistics, Kattupalli Port of Marine Infrastructure Developer Pvt. Ltd., Tiruvallur District.	29.12.2020
4	M/s. TNPL, Kagithapuram, Karur District.	11.2.2021
5	M/s. Taoka Chemical India Pvt. Ltd., Plot No.B-30,32 &31-A, Phase II, MEPZ-SEZ, Tambaram	11.2.2021
7	M/s. ACC Ltd. Madukkarai Cements Works, Coimbatore District.	11.2.2021
8	M/s. Coromandel International Ltd., Ernavoor Village, Chennai District.	11.2.2021
9	M/s. Crimsun Organics Pvt Ltd., Kudikadu Village, Cuddalore District.	11.2.2021

3.4 DISTRICT COORDINATION COMMITTEE (DCC)

The Government vide G.O. (Ms) No.23, Environment and Forests (EC.1) Department, dated: 01.03.2018 constituted a District Coordination Committee (DCC) in all the districts, comprising of the following members so as to restrain the operation of illegal units discharging untreated effluent on land or into water bodies, thereby to protect the precious water bodies in the State. The committee is empowered to disconnect power supply, water supply, seizure of materials, sealing of unit's premises / machinery and eviction etc. The Committee is also empowered to file criminal case against the owner of land and unit.

S. No.	Members of the Committee	Committee
1	District Collector	Chairman
2	District Environmental Engineer, TNPCB	Convener
3	Environmental Engineer (Flying Squad), TNPCB (if available)	Member
4	District Superintendent of Police	Member
5	Superintending Engineer, TANGEDCO	Member
6	Executive Engineer, PWD (WRO Division)	Member
7	Revenue Divisional Officer	Member

CHAPTER - 4

MEETINGS OF THE BOARD

4.1 MEETINGS OF THE BOARD

As per Section 8 of the Water (Prevention and Control of Pollution) Act, 1974 and as per Section 10 of the Air (Prevention and Control of Pollution) Act, 1981, the Board shall meet at least once in every three months and shall observe such rules of procedures with regard to the transaction of business at its meeting as may be prescribed. During the year 2020–2021, the Board has met three times and transacted the business. The details are as follows:

S. No.	Board Meeting Number	Date of Meeting	Number of subjects placed
1	281 st	30.07.2020	76
2	282 nd	30.11.2020	48
3	283 rd	29.03.2021	43
Total			167

Major decisions taken by the Board

1. The Board resolved to approve for the contribution of Rs.20.00 crore to the Hon'ble Chief Minister's public relief fund to support the relief and preventive measures being taken by the Government to eradicate corona virus - (COVID -19. (Resolution No. 281-1-24).
2. The Board resolved to approve for the engagement of services of lawyers (Law consultant) to Tamil Nadu Pollution Control Board temporarily on contract to attend the court cases on day to day basis for a period of one year with remuneration of Rs.30, 000/- per month per lawyer. (Resolution No. 281-1-25).
3. The Board resolved to approve for the extension of validity period of consent to operate/authorization expiring on 31.03.2020 for a period of up to 30.09.2020 in view of the covid-19 lockdown. (Resolution No. 281-1-27).
4. The Board resolved to approve for issuing of work order to NEERI, Chennai for the 'Assessment of dust emissions from stone crushing industries and distance criteria in the state of Tamil Nadu' at a total cost of not exceeding Rs.40.00 lakhs. (Resolution No. 281-2-9).

5. The Board resolved to accord administrative sanction for the establishment of one Mobile Real Time Continuous Ambient Air Quality Monitoring Station (MCAAQM) to identify the vulnerable air pollution points and emergency monitoring of the pollution levels in Salem and adjoining areas at a cost of Rs.2.50 crores. (Resolution No. 281-4-7).
6. The Board resolved to approve the proposal for the formation of a Flying Squad headed by an Environmental Engineer having Vellore as head quarters for the purpose of monitoring the Palar river stretch in the Tannery belt of Tirupattur, Vellore and Ranipet districts at a cost of Rs.50.00 lakhs. (Resolution No. 282-2-14).
7. The Board resolved to approve the proposal for establishment of Waste Management Cell in the Tamil Nadu Pollution Control Board, Head Office for online continuous monitoring and safe disposal of Bio-Medical Waste, Hazardous Waste, E-Waste, Solid/Liquid Waste, Plastic Waste, C&D Waste and other Environmental System monitoring at a cost not exceeding of Rs. 1,47,35,500/-. (Resolution No. 282-2-24).
8. The Board resolved to approve the proposal and recommend to the Government for issue of necessary G.O for levying of Environmental Compensation by the TNPCB on the local bodies for non-compliances of solid waste management and sewage management as per the orders of the Hon'ble National Green Tribunal (PB), New Delhi. (Resolution No. 282-2-26).
9. The Board resolved to approve and recommend the proposal to Government for issue of necessary Government Order/Gazette Notification to prohibit all developmental activities except agriculture in the buffer zone of 500m around CBMWTF and notify its vicinity as Buffer Zone as per the CPCB Revised Guidelines for Common Bio-medical Waste Treatment Facilities, 2016 by the Housing & Urban Development Department, Government of Tamil Nadu. (Resolution No. 283-2-12).
10. The Board resolved to release a sum of Rs.20.00 crores (Rupees Twenty crores only) to the Chennai Metropolitan Water Supply and Sewerage Board from the Board's fund for the project titled "Plugging of sewage outfalls in Adyar, Buckingham canal and Coovum river basins in Chennai City" for financial year 2020-21. (Resolution No. 283-4-9).

CHAPTER - 5

ACTIVITIES OF THE BOARD

5.1 MONITORING AND ISSUE OF CONSENT TO THE INDUSTRIES

As per the provisions of Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, no person shall, without the previous consent of the State Board, establish or operate any industrial plant which is likely to discharge sewage or trade effluent into a stream or well or sewer or on land and also in an air pollution control area of the entire State of Tamil Nadu. Hence industries have to obtain consent of the TNPCB under the above said Acts. 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.

Thereafter, 'Consent to Operate' should be renewed by the unit regularly and at any point of time the unit should have valid consent of the Board. To consider for renewal of Consent, field officers of the Board inspect the industries under their jurisdiction periodically to assess the adequacy of pollution control measures provided by the industries to treat sewage, trade effluent and emissions and to monitor their performance. They also investigate complaints related to environmental pollution received from the public, organizations and the Government. The industries are instructed to carry out necessary corrective measures if required.

5.1.1 Categorization of Industries

To facilitate the consent mechanism and effective monitoring the CPCB has categorized the industries as Red, Orange, Green and White based on the **Pollution Index Score**. It has directed all State Pollution Control Boards (SPCBs) to adopt the same for grant of consent, inventorisation and other associated activities. Following the above categorization, the TNPCB 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 or White and as Large, Medium or Small. As per the CPCB direction, there shall be no necessity of obtaining consent for White category industries and only intimation to TNPCB shall suffice.

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

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

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

District office wise, no. of the industrial units is given in [Annexure – 4](#) and the no. of industrial units comes under the purview of the TNPCB from year 1982 is given in [Annexure -5](#).

The MoEF&CC, Gol have identified 17 categories of industrial sectors as highly polluting industries for intensive monitoring purpose. In Tamil Nadu, there are 188 no. of 17 category units.

S. No.	Category	No. of units
1	Sugar	36
2	Cement	26
3	Distillery	15
4	Petrochemical	10
5	Pulp & Paper	2
6	Fertilizer	7
7	Tannery	15
8	Pesticides	2
9	Thermal Power Station	36

10	Caustic Soda	3
11	Pharmaceuticals	27
12	Dye and Dye Stuff	1
13	Refinery	6
14	Copper Smelter*	1
15	Iron & Steel	1
16	Zinc Smelter	0
17	Aluminium	0
	Total	188

Note: * Copper Smelter unit at Thoothukudi is under permanent closure.

5.1.2 Inspection Periodicity and Sample Collection

TNPCB monitors the industries by periodical inspection and sample collection as per the schedule given in B.P. No. 22, dated 25.02.2004.

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 Category of Industry		Once in a month	Once in a month

5.2 ONLINE CONSENT MANAGEMENT AND MONITORING SYSTEM (OCMMS)

The TNPCB implemented the facility of Online Consent Management and Monitoring System (OCMMS) from 19.01.2015. The OCMMS is a web based generic application software for automating the work flow associated with consent management and monitoring. This system allows the industries for online submission of application for Consent to Establish / Consent to Operate / Renewal of Consent, uploading of documents, online payment of consent fees, online submission of clarification and to know the status of application. This system allows carrying out consent management processes such as scrutiny, raising inspection, raising clarification, submitting inspection report, preparing consent order and forward

consent order to the industries through online. It helps for online monitoring of the processing of applications. 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 38 district offices. Web portal for online consent application is **ocmms.tn.gov.in**

The TNPCB grants Consent to Establish (CTE) to industries with seven years validity in case of Environmental Impact Assessment (EIA) attracting projects and five years validity in case of non-EIA attracting projects. The Consent to Operate (CTO) is issued for eligible cases with a validity period of 5 years, 10 years and 14 years for Red, Orange and Green category industries respectively.

CTO-Direct to the Green Category Industries: As a part easy of doing business and for promoting of industries in the State, the TNPCB vide B.P.No.1, dated 13.01.2020 issued orders that the Green category industries proposed to be located in Industrial Use Zone / Industrial Estate as classified by the DTCP / CMDA / LPA need not get Consent to Establish (CTE) and they can establish the industry and apply directly to Consent to Operate (CTO) for the commencement of production.

5.2.1 Auto Renewal of Consent

The Board introduced a concept of 'Auto Renewal' of Consent to the Red-Small and all Orange and Green category industries. Accordingly, consent is renewed to the units without prior inspection for which the unit has to furnish self certification. This ensures grant of renewal consent within seven days on receipt of application through OCMMS.

During the year 2020-2021, the Board has issued CTE to 701 units and CTO to 2671 units.

Period	Consent to Establish		Consent to Operate	
	Water Act	Air Act	Water Act	Air Act
Cumulative (Upto 31.03.2020)	23342	23271	54151	51339
During the Year 2020-2021	701	701	2671	2671
Total	24043	23972	56822	54010

Note: Issue of CTE to the industries was started in year 1995

5.3 COMMON EFFLUENT TREATMENT PLANTS (CETPs)

Taking into consideration, the key role played by Micro, Small, 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	30*
3.	Electroplating Units	2
4.	Hotels & Lodges	1
5.	Pharmaceutical Industries	1
6.	Common Marine Discharge Scheme	1
	Total	48

*Out of 30 CETPs, eight in Karur, two in Tiruppur and one in Kancheepuram are under closure due non-implementation of ZLD plant.

5.3.1 CETPS in Tannery Sector

Among 13 CETP schemes established for tanneries, 11 CETPs are in operation with Zero Liquid Discharge (ZLD) system. CETP (Madavaram) and CETP (Pallavaram) have provided primary and secondary treatment systems and opted for dilution of treated effluent with treated sewage to meet the standards prescribed by the Board. **The CETP at Madavaram has completed the works and commenced the mixing of treated trade effluent with CMWSSB treated sewage. CETP Pallavaram is in the process.**

List of CETPs in Tannery sector operating with ZLD System

S. No.	Name of the CETPs	Number of member units	Consented Quantity (KLD)	Permitted quantity (KLD)
1	M/s. Talco Trichy Tannery Effluent Treatment Company, Trichy	5	201.4	201.4
2	M/s. Talco Dindigul Tanners Enviro Control System Pvt. Ltd., Dindigul	49	2533	1517
3	M/s. Perundurai Leather Industries Eco-Security Private Limited, Perundurai, Erode District	14	2000	1000
4	M/s. Ambur Tannery Effluent Treatment Company Limited, Thuthipet Sector, Ambur, Tirupattoor District	49	2219	1150
5	M/s Ambur Tannery Effluent Treatment Company Ltd, Maligaithope Sector, Ambur, Tirupattoor District.	17	1100	330
6	M/s TALCO Pernambut Tannery Effluent Treatment Company Ltd., Pernambut, Vellore District	36	891	600
7	M/s. Vanitec Limited Valayampet Vaniyambadi, Tirupattoor District	133	3342	2000
8	M/s. Ranipet Tannery Effluent Treatment Company Limited (RANITEC), Ranipet District	82	4500	3600
9	M/s. Ranipet SIDCO finished Leather Effluent Treatment Company Limited, Ranipet District	79	2500	1875
10	SIPCOT-SIDCO Phase II Entrepreneur Finished Leather Effluent Treatment Co. Ltd., Ranipet District	20	1560	700
11	M/s. Visharam Tanners Enviro Control Systems (P) Ltd., Melvisharam, Ranipet District	36	3400	600
	Total	520	24246.4	13573.4

List of CETPs in Tannery sector proposed for dilution of treated effluent with treated sewage

S. No.	Name of the CETP	No. of member units	Consented Quantity (KLD)	Permitted quantity (KLD)
1	Madhavaram Leather Manufacturers Facility P Ltd, Madhavaram	14	400	400
2	M/s. Pallavaram Tanners Industrial Effluent Treatment Company Limited., Chrompet, Chennai	144	3000	3000
	Total	158	3400	3400

5.3.2 CETPs in Textile Bleaching and Dyeing Sector

For the benefit of small scale Textile bleaching and dyeing units, 30 CETPs were established and commissioned between the years 1996 – 2000, with primary and secondary treatment systems. Since the CETPs were unable to bring the TDS level to 2100 mg/L, they were directed to go for Zero Liquid Discharge. Accordingly, out of 30 CETPs, 19 CETPs (18 CETPs in Tiruppur, 1 CETP in Perundurai) have implemented tertiary treatment with RO Plant, Multiple Effect Evaporator and Agitated Thin Film Dryer to meet Zero Liquid Discharge standards. One CETP at Ayyampet-Muthyalpet in Kancheepuram district has now proposed to provide ZLD Plant for which they are in the process of getting grant from the Central and State Governments. **At present, this is CETP is under closure.** The remaining 10 CETPs (8 CETPs in Karur and 2 CETPs in Tiruppur) were under closure in view of the orders of the Hon'ble High Court due to their inability to achieve ZLD standards.

The Director of Handlooms and Textiles, Government of Tamil Nadu has sanctioned Rs.203.405 Crores as interest free loan to the functioning 18 CETPs in Tiruppur. So far, Rs.199.145 Crores was released in order to modernize / improve the ZLD system.

Existing CETPs with ZLD system

S. No.	Name and address of CETP	No. of member units	Capacity (KLD)
1	M/s. Arulpuram Common Effluent Treatment Company Pvt. Ltd., S.F.No.158,Ganapathipalayam Village, Palladam Taluk, Tiruppur District – 641 605	14	5500
2	M/s. Eastern Common Effluent Treatment Company Private Limited, S.F. No.3/1, 4/2, Nallur Village, Tiruppur South Taluk, Tiruppur District – 641 606.	23	6000
3	M/s. Kallikadu Common Effluent Treatment Plant Private Limited, T.S. No.915/3/21/3 & 914/3/21/3,Tiruppur Town, Tiruppur Taluk, Tiruppur District - 641 604	12	3000
4	M/s. Tiruppur Murugampalayam Common Effluent Treatment Company Limited, S.F.No.214/2, Veerapandi Village, Tiruppur Taluk, Tiruppur District – 641 687.	60	11000
5	M/s. Mangalam Common Effluent Recycling Technologies India (P) Ltd, R.S. No. 179-182, 185/1-B, 182/1, Andipalayam Village, Tiruppur South Taluk, Tiruppur District – 641 663	15	4000
6	M/s. Rayapuram Common Effluent Treatment Plant Pvt. Limited, R.S. No.642, 643, 646, 647 & 648, Velampalayam Village, Tiruppur North Taluk, Tiruppur District - 641 603	15	5500

7	M/s. Veerapandi Common Effluent Treatment Plant Pvt. Limited, R.S.No.548/1,548/8A,548/7A,548/3A1,3A2,548/5B,8A1,8A2, 8B,1,2, 549, 550/5, Veerapandi Village, Tiruppur Taluk, Tiruppur District – 641 604.	69	12000
8	M/s. Angeripalayam Common Effluent Treatment Plant Ltd., S.F. No.78, 79, 80, 80/1, 80/2, 81/1, 81/2, 82/1, 82/2, 83, 84, 89 & 98/2, Mannarai Village, Tiruppur Taluk, Tiruppur District – 641603.	75	10000
9	M/s. Chinnakkarai Common Effluent Treatment Plant Private Limited, S.F. No. 275/2B, 265/2A, 255/4B, 271 & 266, Veerapandi Village, Tiruppur South Taluk, Tiruppur District – 641 605.	29	8000
10	M/s. Karaipudur Common Effluent Treatment Plant Pvt. Ltd, S.F.No.10/1,13/1, Karaipudur village, Palladam Taluk, Tiruppur District – 641 605.	25	4500
11	M/s. Kasipalayam Common Effluent Treatment Plant Pvt. Ltd., S.F.No.249 (part), 250(part), 250/1, Agrahara Periyapalayam Village, Uthukuli Taluk, Tiruppur - 641 607.	12	4400
12	M/s. Kunnangalpalayam Common Effluent Treatment Plant Limited, S.F.No.260/3, Veerapandi Post, Tiruppur District-641 605.	19	5500
13	M/s. Mannarai Common Effluent Treatment Plant (P) Limited,R.S.No.209/2A, 2B1, 2B2, Mannarai Village, Tiruppur North Taluk, Tiruppur District - 641 607	28	4200
14	M/s. Sirupooluvapatti Common Effluent Treatment Plant Private Limited, S.F.No.622/2 &623, 15- Velampalayam Village, Tiruppur North Taluk, Tiruppur District – 641 603	19	5000
15	M/s. Vettuvapalayam Common Effluent Treatment and Recycling Plant Private Limited, S.F.No.30/1,2 & 3, Mangalam Village, Tiruppur South Taluk, Tiruppur District– 641 663.	9	1500
16	M/s. Andipalayam Common Effluent Treatment Plant Private Limited, R.S. No.96/1 & 97/3, Mangalam Road, Andipalayam Village, Tiruppur, Tiruppur District-641 687.	9	4500
17	M/s. S. Periyapalayam Common Effluent Treatment Plant Private Limited, R.S.No.224/2, Agrahara Periyapalayam, S. Periyapalayam, Perundurai Taluk, Tiruppur District – 641 607.	6	1500
18	M/s. Park CETP (P) Limited, S.F.No.327, (opp. to Anburam Knit Process), Poyampalayam Privu (West), Pitchampalayam Pudhur (PO), P.N. Road, Tiruppur, Tiruppur District – 641603.	4	2500
19	M/s. Perundurai Common Effluent Treatment Plant (Textiles), Plot No: R-22, SIPCOT Industrial Growth Centre, S.F. No.192, 193, 198, 199, 200, 201, 202, 203, 205, 206, 207, 208, 210, 217 part, Ingur Village, Perundurai Taluk, Erode District – 638 052	8	4050
Total		451	102650

Existing CETP proposed for ZLD

S. No.	Name and address of CETP	No. of member units	Capacity (KLD)
1	M/s. Ayyampet-Muthiyalpet Bleaching and Dyeing Effluent Treatment Company Limited, S.F.No.114/6B,2/1A,B,C,D, Valluvapakkam Village, Kancheepuram Taluk, Kancheepuram District	36	1500

Proposed New CETPs

In order to cater the need of bleaching and dyeing units in Erode, Bhavani in Erode district and Pallipalayam and Kumarapalayam areas Namakkal districts, 10 new CETPs are proposed to be established funding under Integrated Processing Development Scheme (IPDS), by the Ministry of Textiles (MoT), Government of India. **TNPCB has granted Consent to Establish to these 10 new CETPs.** The details are given below:

S. No.	Name of the Project and address of the project	No. of beneficiary units	Total Capacity of the plant in KLD	Project cost (Rs in crores)	Present status of the project
1	M/s. Sree Bhavani Dyeing Cluster Development Limited, Bhavani Taluk, Erode District.	73	4000	92.61	CTE was issued on 23.12.2019 with validity up to 31.03.2024. DPR was vetted by IIT Madras. The Handlooms, Handicrafts, Textiles and Khadi Department, Government of Tamil Nadu have recommended the proposal to the Ministry of Textile, Govt of India for grant under Integrated Processing Development Scheme (IPDS). The MoT has accorded in principle approval on 19.01.2017. The project is in initial stage. The construction work is not yet commenced.
2	M/s. Kadayampatti Common Effluent Treatment Plant Bhavani Private Limited	34	6250	173.26	CTE was issued on 10.03.2020 with validity up to 31.03.2024. DPR was vetted by IIT Madras. The project is in initial stage. The construction work is not yet commenced.
3	M/s. Kadayampatti Common Reject Management Systems Private Limited (CRMS)	11	1750	134.02	CTE was issued on 10.03.2020 with validity up to 31.03.2024. DPR was vetted by IIT Madras. The project is in initial stage. The construction work is not yet commenced.
4	M/s. Gangapuram Common Effluent Treatment Plant Private Limited, Erode Taluk, Erode District.	38	4500	174.93	CTE was issued on 13.02.2020 with validity up to 31.03.2024. The project is in initial stage. The construction work is not yet commenced.

5	M/s. Villarasampatti Common Effluent Treatment Plant Private Limited, Erode Taluk, Erode District.	85	4500	189.37	CTE was issued on 13.02.2020 with validity up to 31.03.2024. The project is in initial stage. The construction work is not yet commenced.
6	M/s. Suriyampalayam Common Effluent Treatment Plant Private Limited, Erode Taluk, Erode District.	36	4200	173.53	CTE was issued on 13.02.2020 with validity up to 31.03.2024. The project is in initial stage. The construction work is not yet commenced.
7	M/s. Green Kalingarayan Common Effluent Treatment Plant Private Limited, Erode Taluk, Erode District.	82	5800	194.27	CTE was issued on 13.02.2020 with validity up to 31.03.2024. The project is in initial stage. The construction work is not yet commenced.
8	M/s. Erode Common Effluent Treatment Plant Private Limited, Erode Taluk, Erode District.	13	2000	140	CTE was issued on 10.03.2020 with validity up to 31.03.2024. The project is in initial stage. The construction work is not yet commenced.
9	M/s. Southern District Textile Processing Cluster Private Limited, Virudhunagar District.	36	6300	160.15	CTE was issued on 07.12.2018 with validity up to 31.03.2025. The project is in initial stage. The construction work is not yet commenced.
10	M/s. SIMA Textile Processing Centre Limited, Periapattu village, Chidambaram Taluk, Cuddalore District	10	10500	120	CTE was issued on 12.07.2007. It was extended periodically. The last CTE extension was issued on 21.6.2018 with validity up to 31.03.2020.
	Total	418	49800	1552.14	

The financial pattern under the IPDS of MoT, GoI

Central Government Grant through Ministry of Textile, Government of India	50% of the project cost
State Government Grant through Handlooms Handicrafts, Textiles and Khadi Department	25% of the project cost
Member units contribution	25% of the project cost (15% directly borne by the members and 10% through bank loan by the members)

5.3.3 CETPs in Electroplating Sector

There are two CETPs with ZLD system established and commissioned for Electroplating units.

S. No.	Name of the CETPs	No. of member units	Consented quantity (KLD)	Permitted quantity (KLD)
1	M/s. JBR Technologies Ltd., Korattur Village, Ambattur Taluk, Tiruvallur District	211	200	200
2	M/s. Madurai Electroplating Industrial Park , Karisalkulam Village, Thiruppuvanam Taluk, Sivagangai District	48	49.6	49.6

5.3.4 CETPs for Hotels and Lodges

The unit of M/s. Kodaikanal Effluent Treatment Company Limited, Kodaikanal Taluk, Dindigul District was established in 1992. This is the only CETP established for treating the sewage generated from hotels and lodges located in Kodaikanal hill station. The unit is consented for collection, conveyance and treatment of 850 KLD of sewage. The unit collects the untreated sewage from 35 member units and the treated sewage from the facility is disposed into a nearby odai which leads to Parappar river.

5.3.5 CETP for Pharmaceutical units

The Pharmaceutical units in SIDCO Industrial Estate, Alathur, Chengalpattu district has formed a Special Purpose Vehicle by name M/s. Chennai Pharma Industrial Infrastructure Upgradation Company and has established a CETP of 142.35 KLD capacity with Zero Liquid Discharge. This unit was issued with CTO for handling trade effluent (86.80 KLD) and sewage (55.55 KLD) generated from nine pharmaceutical formulation units.

5.3.6 Common Marine Discharge Scheme

The Cuddalore SIPCOT Industries Common Utilities Limited is a common marine discharge scheme established and commissioned in January 2000. This common facility is to collect the treated trade effluent from the units in SIPCOT Phase I & II, Cuddalore comprising of textile processing, pharmaceutical, dye, chemical, pesticide and miscellaneous units and dispose the same into sea. This facility comprises of 6 numbers of collection sumps and inter-connecting pipelines to a total length of 2.2 kilometers. The pipeline passes across the river Uppannar

followed by land and into sea. At the final point into sea, the pipeline is anchored by concrete blocks with diffuser arrangements to dispose the effluent into sea at a depth of 8 meters below sea surface. The facility was consented to collect and discharge treated trade effluent of 12000 KLD into the sea.

5.4 WASTE MANAGEMENT

5.4.1 Solid Waste Management

The Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India (GoI) have notified the Solid Waste Management Rules, 2016. The role of local bodies has been specified under Rule 15. As per Rule 16, the TNPCB enforces these Rules through local bodies.

In Tamil Nadu, there are 15 Corporations, 121 Municipalities and 528 Town Panchayats. As per the annual report of the year 2020-21, the total quantity of solid waste generation is 13422 tons/day (TPD), out of which 12844 TPD is being collected by the local bodies. Out the collected solid waste 9423.35 TPD is treated and 2301.04 TPD is land filled in the landfill and dumpsites. As per the Rules, the local bodies generating more than 5TPD of solid waste should get authorization from SPCB. So far 219 applications received for authorization and Authorization issued for the said applications.

As per the Rules, local bodies shall carryout bio-mining of old dumpsites and recover the land. Accordingly the bio-mining of legacy waste has been initiated by the local bodies in 152 dumpsites in the State, of which 23 sites have been completed and work is in progress in the remaining 129 sites. As such 4, 04,832 square meters of land have been reclaimed in the 23 sites. The value of reclaimed land is estimated to Rs. 197.7 Crores.

TNPCB is monitoring the environmental (ground water and Ambient Air) qualities in and around the dumpsites periodically. TNPCB has issued show cause notices/directions/levy of Environmental Compensation under section 5 of Environment (Protection) Act, 1986 to the violating local bodies for non-compliance of the provisions of Solid Waste Management Rules, 2016 and for not commencing the biomining of legacy wastes. The annual reports received from the Local bodies is consolidated and submitted to the CPCB in Form-V. The report is also uploaded in the TNPCB website.

Hon'ble National Green Tribunal orders in O.A.No.606 of 2018 (Compliance of Solid Waste Management Rules, 2016)

The Hon'ble National Green Tribunal (Principal Bench), New Delhi on 23.07.2018 has reviewed solid waste management based on Annual Report prepared by the CPCB and noticed serious deficiencies. Subsequently, the Hon'ble NGT (PB) took Suo-Moto case in Original Application No. 606 of 2018 on the compliance of Solid Waste Management Rules, 2016 and issued series of orders / directions which include constitution of State Monitoring Committee for each State, formation of Special Task Force in each district, submission of compliance status as quarterly reports, levying of environmental compensation, etc.

As per the Hon'ble NGT order dated 16.01.2019, State Monitoring Committee (SMC) in Tamil Nadu has been constituted under the Chairmanship of Dr.P.Jyothimani, Former Judge, Madras High Court and Former Judicial Member, National Green Tribunal.

The Hon'ble National Green Tribunal (Principal Bench) vide order dated 28.02.2020 & 02.07.2020 in OA No. 606 of 2018 has directed that "In view of the fact that most of the statutory timelines have expired and directions of the Hon'ble Supreme Court and the Tribunal to comply with Solid Waste Management Rules, 2016 remain unexecuted, Interim compensation scale is laid down for continued failure after 31.03.2020". As per the orders of the Hon'ble NGT (PB), TNPCB assessed Interim Environmental Compensation and issued Directions under section 5 of Environment (Protection) Act, 1986 with respect to remittance of Interim Environmental Compensation to 15 urban local bodies. Show Cause Notices have been issued to 12 urban local bodies under section 5 of E (P) Act, 1986 as to why the Board shall not levy Interim Environmental Compensation for non-compliance of SWM Rules.

5.4.2 Sewage Treatment Plant by the Local Bodies

In Tamil Nadu, total sewage generation in the Urban Local Bodies is around 3786 MLD from the population of 72.14 million. There are 71 STPs with a total capacity of 1625.45 MLD in operation in all 15 Corporations and in selected Municipalities and Town Panchayats and 44 STPs with a total capacity of 976 MLD are under construction stage as on March 2021. The TNPCB have issued directions

to the Urban Local Bodies to set up STPs of adequate capacity including provision for underground sewerage system to cover the entire local / urban areas under their jurisdiction. The details of STPs are given in table:

i). STPs under operation

S. No.	Name of the STP under local bodies	Capacity of STP (MLD)
CMWSSB		
1	Nesapakkam STP Zone –IV	23
2	Koyambedu STP Zone – II	34
3	Kodungaiyur STP Zone II	80
4	Kodungaiyur STP Zone I	80
5	Perungudi STP Zone - V	12
6	Koyambedu STP Zone - III	60
7	Kodungaiyur STP Zone I& II	110
8	Nesapakkam STP Zone – IV	40
9	Perungudi STP Zone – V	54
10	Perungudi STP Zone – V	60
11	Nesapakkam STP Zone – IV	54
12	Koyambedu STP Zone – III	120
13	Sholinganallur STP	18
Corporations and Municipalities (CMA)		
14	Coimbatore- 1 STP	70.00
15	Coimbatore- 2 STP	60.00
16	Vellore STP	10.28
17	Dindigul STP	5
18	Avadi STP	4.00
19	Madurai-1 STP	125.00
20	Madurai-2 STP	45.70
21	Thanjavur STP	28.05
22	Tiruppur STP	15.00
23	Cuddalore STP	12.25
24	Kancheepuram STP	14.70
25	Maraimalai Nagar STP	2.20
26	Tiruvallur STP	6.20
27	Chidambaram STP	9.44
28	Thiruvannamalai STP	8.70
29	Viluppuram – Kakuppam STP	9.0

30	Viluppuram – Erumanthangal STP	3.50
31	Arakkonam STP	11.04
32	Thirupathur STP	11.43
33	Bodinayakanur STP	12.08
34	Chinnamanur STP	3.99
35	Periyakulam STP	5.47
36	Ramanathapuram STP	7.00
37	Rasipuram STP	6.96
38	Theni-Allinagaram STP	12.05
39	Sivagangai STP	4.92
40	Dharmapuri STP	4.86
41	Karur STP	15.00
42	Krishnagiri STP	12.34
43	Namakkal STP	5.00
44	Nagapattinam STP-1	9.63
45	Nagapattinam STP-2	2.69
46	Tiruvarur STP	6.92
47	Ariyalur STP	4.16
48	Pudukkottai STP	10.62
49	Perambalur STP	4.20
50	Udhagamandalam STP	5.00
51	Udumalaipet STP	7.81
52	Virudhunagar STP	7.65
53	Tiruchirappalli STP	58.00
54	Salem - Vellakuttai STP	13.00
55	Salem - Anaimedu STP	6.00
56	Salem - Mankuttai STP	35.00
57	Salem - Vandipettai STP	44.00
58	Tirunelveli STP	24.20
59	Erode STP	50.55
60	Mettur STP-1	0.82
61	Mettur STP-2	0.92
62	Mettur STP-3	5.45
63	Kumbakonam STP	17.00
64	Mayiladuthurai STP	5.85
Town Panchayats (DTP)		
65	Mamallapuram Town Panchayat STP	2.34
66	Orathanadu Town Panchayat STP	2.30

67	Thiruchendur Town Panchayat STP	3.90
68	Palanichettyatti Town Panchayat STP	2.80
69	Thirumazisai Town Panchayat STP	3.00
70	Ulundoorpettai Town Panchayat STP	3.15
71	Velankanni Town Panchayat STP	2.33
	Total	1625.45

ii). STPs under construction

S. No.	Name of the STP under local bodies	Capacity of STP (MLD)
CMWSSB		
1	Sholinganallur STP	54
2	Thiruvottriyur STP	31
3	Kodungaiyur STP Zone - I	120
4	Kodungaiyur STP Zone - II	120
5	Nesapakkam STP Zone - IV	50
6	Perungudi STP Zone - V	60
7	Nesapakkam TTUF	10
8	Perungudi TTUF	10
9	Chennai River Restoration Trust (CRRT),Chetpet MSTP	1
10	CRRT, Nungambakkam MSTP	1.2
11	CRRT, Maduravoyal	0.6
12	CRRT, Langs Garden MSTP	10
13	CRRT, Todd Hunter Nagar MSTP	0.4*4=1.6
14	CRRT, Kottupuram MSTP	0.3*2=0.6
Corporations and Municipalities (CMA)		
15	Ambur STP	16.71
16	Avadi STP	36.00
17	Coimbatore – Nanjudapuram STP	40.00
18	Coimbatore – Kuruchi & kuniyamuthur STP	30.53
19	Karaikudi STP	16.00
20	Nagercoil STP	17.66
21	Pollachi STP	11.25
22	Rajapalayam STP	21.85
23	Rameshwaram STP	4.08
24	Sattur STP	4.65
25	Tambaram STP	30.00
26	Tiruppur STP	15.00

27	Tiruppur (Sarkarperipalayam) STP	36.00
28	Tiruppur (Chinnandipalayam) STP	20.00
29	Tuticorin STP	28.00
30	Vellore STP	50.00
31	Tindivanam STP	11.44
32	Villupuram Added Area STP	4.56
33	Tiruchirapalli-STP-1	30.00
34	Tiruchirapalli-STP-2	37.00
35	Mettupalayam STP	8.65
36	Sathiyamangalam STP	4.08
Town Panchayats (DTP)		
37	Imbudur Town Panchayat STP	8.50
38	Thiruporur Town Panchayat STP	4.02
39	Ponneri Town Panchayat STP	6.52
40	Manachanallur Town Panchayat STP	6.41
41	S.Kannanur Town Panchayat STP	
42	Vallam Town Panchayat STP	2.35
43	Perundurai Town Panchayat STP	3.14
44	Melachokanathapuram Town Panchayat STP	2.00
	Total	976.4

The treated sewage is either used for irrigation or let into water bodies after satisfying the standards prescribed by the TNPCB. As per the Hon'ble National Green Tribunal Order dated 27.11.2018 in O.A.No.148/2018, an action plan for utilization of treated sewage in the State of Tamil Nadu as prepared by the Municipal Administration & Water Supply Department, Government of Tamil Nadu was submitted to the CPCB on 06.08.2019.

To ensure effective and continuous operation of the Sewage Treatment Plants (STPs), the Board has issued directions vide Proceeding date 27.08.2020 to install Online Continuous Effluent Monitoring System (OCEMS) for the parameters namely pH, TSS, COD, BOD and Flow. Further the Board vides letter dated 24.11.2020 requested MAWS Department to use Mobile Application for transmission of STP operation data. The Board has again issued directions vide Proceeding Dated: 16.03.2021 to install Online Continuous Effluent Monitoring System (OCEMS) and use mobile based application on STP monitoring towards the compliance with CPCB directions dated 15.02.2021.

5.4.3 Construction and Demolition Waste Management

The MoEF&CC, GoI have notified the Construction and Demolition Waste Management Rules, 2016. These rules are 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 that generates construction and demolition waste such as building materials, debris and rubble. According to the Rules, the local bodies need to ensure proper management of construction and demolition waste. State Pollution Control Board is to grant authorization for the waste processing facility and monitor the implementation of these rules. The TNPCB has issued directions to all the local bodies to take necessary action to comply with the provisions of the rules and to provide suitable sites for setting up for the storage, processing and recycling facilities for construction and demolition waste. The TNPCB has issued Consent to Operate under Water (P&CP) Act, 1974 & Air (P&CP) Act, 1981 for the C&D waste processing facilities at Kodungaiyur and Perungudi by the Greater Chennai Corporation.

5.4.4 Plastic Waste Management

The Ministry of Environment, Forest and Climate Change, Government of India has notified the Plastic Waste Management Rules, 2016. In the State of Tamil Nadu, there are 15 Corporations, 121 Municipalities and 528 Town Panchayats. As per the annual report of 2020-21, the estimated plastic waste generated from 15 Corporations, 121 municipalities and 528 Town Panchayats of Tamil Nadu is around **1178 tons/day**, out of which **96%** is collected and segregated by the respective urban bodies in which the recyclable plastic waste are sold to the recyclers and non-recyclable plastic waste are sent for co-incineration in cement plants.

As per Rule 13 of Plastic Waste Management Rules, the plastic manufacturers shall obtain Registration from the Board. The Board has issued registration to 29 compostable plastic manufacturing units, 230 plastic waste recycling units. The Board submits the annual report in Form-VI to the CPCB.

Ban on one time Use and Throwing Plastics

The Government vide G.O. (Ms).No.84, Environment and Forests (EC.2) Department dated 25.06.2018 have issued orders by banning fourteen types of 'use

and throwaway plastic items irrespective of thickness. The ban is in effect from 01.01.2019. Alternatives for banned plastic items are Plantain leaves, areca nut plates, lotus leaves, aluminium foils, paper rolls/paper straw/ paper flags, glass/metal tumblers, bamboo, Wooden and earthen products, Cloth/Cloth flags, Jute bags & compostable plastic carry bags, ceramic wares.

The Board in co-ordination with line departments took various actions 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 by banning the use of plastic in primary packaging also. As part of action on violators, the Board issued orders for closure of 115 units who manufactured banned plastic items.

5.4.5 Hazardous Waste Management

The management of the hazardous waste is regulated as per the provisions of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) notified by Ministry of Environment, Forest and Climate Change, Government of India, New Delhi the under the Environment (Protection) Act, 1986. The hazardous waste generators primarily industries shall follow the steps namely prevention, minimization, reuse, recycling, recovery, utilization including co-processing and safe disposal of hazardous wastes. State Pollution Control Board shall grant authorization for handling the hazardous waste.

The Board has identified 4199 industries generating hazardous waste and issued authorization to 4157 industries, as of 31.03.2021. During the period 2020-21, about 7.95 lakhs tons of hazardous waste is generated, in which 0.85 lakhs tons (10.69%) is landfillable, 1.24 lakhs tons (15.59%) is recyclable, 5.76 lakhs tones (72.45%) is utilizable and 0.095 lakhs tons (1.19%) is incinerable. The Board is taking effective steps in handling, management, treatment and disposal of hazardous waste in an environmentally safe manner.

Hazardous Waste generation, recycle, utilization and disposal during 2020-21

District Office-wise hazardous waste generated (MT) for the period 2020-21

S. No.	Name of the District	Total Number of HW Generating Industry	Number of Units possessing authorization	Quantity of Hazardous Waste generated as per Annual Return (Metric Tonne)				Total Quantity
				Landfillable	Incinerable	Recyclable	Utilizable	
1	Ambattur	317	317	5106.00	502.00	2189.00	2326.00	10123.00
2	Ariyalur	25	25	66.10	20.29	171.44	40398.50	40656.33
3	Chennai	134	134	171.00	539.00	157.10	0.00	867.10
4	Coimbatore (N)	149	149	3088.00	557.70	159.66	3420.67	7226.03
5	Coimbatore (S)	162	162	243.45	688.50	629.43	0.00	1561.38
6	Cuddalore	54	54	8545.33	433.83	10453.30	2655.57	22088.03
7	Dharmapuri	15	15	0.01	0.00	31.55	0.00	31.56
8	Dindigul	52	52	25.93	244.37	284.49	1346.35	1901.13
9	Erode	263	263	1488.80	0.00	6572.00	0.00	8060.80
10	Gummidipoondi	134	121	5131.36	803.00	1225.64	0.00	7160.00
11	Hosur	174	174	1712.00	393.00	6772.00	2394.00	11271.00
12	Karur	85	85	1539.60	0.00	41096.00	260208.00	302843.60
13	Kumarapalayam	117	117	386.58	0.00	579.85	0.00	966.43
14	Madurai	87	87	27.23	39.52	224.72	1145.79	1437.26
15	MM Nagar	317	317	5287.57	356.10	4046.10	8430.90	18120.67
16	Nagapattinam	41	41	66.40	0.00	13.94	0.00	80.34
17	Nagercoil	21	21	2.43	0.00	40.32	0.00	42.76
18	Nammakkal	18	16	38.96	0.00	537.70	0.00	576.66
19	Ooty	17	17	95.82	14.50	12.99	0.00	123.31
20	Perundurai	168	168	11375.27	0.00	14.97	739.35	12129.59
21	Pudukottai	40	40	75.18	55.02	195.44	2943.23	3268.87
22	Ramanathapuram	18	16	0.03	0.00	29.80	0.00	29.83
23	Salem	112	112	2187.40	1327.00	755.57	3591.78	7861.75
24	Sivagangai	24	20	10.99	0.98	10.30	47.18	69.45
25	Sriperumbudur	346	331	9187.20	1050.00	14787.25	0.00	25024.45
26	Thanjavur	25	25	35.70	0.00	107.16	0.00	142.86
27	Theni	15	15	96.23	0.00	14.84	195.57	306.64
28	Thoothukudi	51	49	2842.17	0.00	6230.39	0.00	9072.56
29	Tirunelveli	41	41	101.97	16.92	1949.16	118092.04	120160.10
30	Tiruppur (N)	441	441	558.94	896.21	6198.98	9153.64	16807.77
31	Tiruppur (S)	78	78	36.69	182.52	6205.68	7207.97	13632.86
32	Tiruvallur	118	118	1322.90	639.19	9025.80	1185.80	12173.69
33	Tiruvannamalai	26	25	3121.00	8.95	349.10	0.00	3479.05
34	Trichy	74	71	9319.48	165.43	786.20	102.24	10373.35
35	Vaniyambadi	206	206	3896.00	0.00	0.60	4671.30	8567.90
36	Vellore	146	146	5992.25	484.45	2210.60	3352.96	12040.26
37	Villupuram	40	40	194.40	27.00	71.10	145.44	437.94
38	Virudhunagar	48	48	2039.55	0.00	103.00	102186.37	104328.92
TOTAL		4199	4157	85415.93	9445.48	124243.21	575940.64	795045.25

Hazardous Waste Recycling

The Board is encouraging recycle of hazardous wastes as listed in Schedule-IV of HOWM Rules, 2016 adopting Environmental Sound Technologies & following guidelines issued by CPCB in this regard. As of 31.03.2021, the Board has authorized 93 HW Recyclers for recycle of nine hazardous waste items such as non-

ferrous metal wastes (brass, zinc, copper), spent catalyst, used lead batteries, paint waste, e-waste and used & waste oil.

Details of hazardous wastes recycled with quantity during 2020-2021

Sl. No	HW recycle as per Schedule-IV	No of Facilities authorized for HW recycling	Authorized Capacity (MTA)	Quantity Recycled during 2020-2021 (MT)
1	Brass Dross	1	300	0
2	Zinc Bearing Wastes	11	10567	1159.83
3	Copper Bearing Waste	5	33344	6228.80
4	Spent catalyst containing nickel, cadmium, Zinc, copper, arsenic, vanadium and cobalt	1	17390	0
5	Lead bearing waste including battery waste	25	544675	59434.09
6	E-Waste	3	32100	14475.18
7	Paint and ink Sludge/residues	1	2000	0
8	Used oil	29	113309	2949.56
9	Waste Oil	17	60947	1028.80
	TOTAL	93	814,632	85,276.26

Hazardous Waste Utilization

The utilization of hazardous and other wastes as a resource or after pre-processing either for co-processing or for any other use in accordance with Standard Operating Procedures (SOPs) or Guidelines issued by CPCB is specified under provision of Rule (9) of HOWM Rules, 2016. The Board has authorized utilization of three HW categories under Schedule-1 namely (1) spent solvent, (2) spent dichromate solution and (3) de contamination (washing) of drums, containers, based on SOPs issued by CPCB. Permission has also been granted for captive utilization of ferrous and non ferrous metal scraps, waste paper, waste rubber etc.

Details of hazardous wastes utilized with quantity during 2020-2021

S. No.	Hazardous & Other Wastes Utilization	No of Facilities authorized for HW utilization	Authorized Capacity (MTA)	Quantity Recycled during 2020-2021 (MT)
Non-Captive Utilization of HW, based on CPCB SOP				
1.	Spent Solvents	12	20335	6023
2	Sodium di-chromate solution from pharma	3	4668	1797

3.	De-contamination of contaminated drums/ containers/barrels	14	594729	8973
TOTAL		29	619732	16793
Captive Utilization of Hazardous & Other Wastes				
1	Iron & Steel Scraps	39	1115555	333890
2	Aluminium Scraps	18	73038	68209
3	Waste Paper	55	2691890	2037342
4	Waste Rubber	1	6000	5437
5	Discarded Asbestos	1	960	596
TOTAL		114	3887443	2445474

The utilization of hazardous waste by co-processing in cement plant is considered as environmentally sustainable option because there is a dual benefit in terms of utilizing the waste as supplementary fuel as well as alternative raw material. CPCB has issued guidelines during July, 2017 for Pre-processing and Co-processing of hazardous and other wastes in cement plant. Based on the guidelines, the Board has permitted the use of hazardous and other wastes in cement kilns either as raw material for co-processing or as fuel for energy recovery subject to the compliance criteria specified. Authorization under HOWM Rules, 2016 has been granted to twelve cement industries to process 18, 52,688 TPA of utilizable wastes in cement kilns for co-processing. During the year 2020-21, about 1.7 lakhs tons of ETP sludge has been utilized in various cement industries of Tamil Nadu for co-processing.

Details of Cement Industries authorized for Co-processing

Sl. No	Name & Address of the Cement Industry	Permitted Capacity (MTA)	Quantity Utilized during 2020-21(MT)
1	M/s. Chettinad Cement Corporation Pvt. Ltd, Keelapalur Village, Ariyalur Taluk, Ariyalur District	1,18,000	1384.2
2	M/s Ultra Tech Cement Limited, Reddipalyam Village, Ariyalur Taluk, Ariyalur District	4,77,000	4228.3
3	M/s. Dalmia Cement (Bharat) Ltd, Palinganatham Village, Ariyalur Taluk, Ariyalur District	3,84,500	10899
4	M/s Dalmia Cement (Bharat) Ltd., Thamarakulam Village, Ariyalur Taluk, Ariyalur District	2,49,293	20789
5	M/s. The Ramco Cements Limited, Govindapuram Village, Ariyalur Taluk, Ariyalur District	6000	843.32
6	M/s The Ramco Cements Limited, Alathiyur Village, Sendurai Taluk, Ariyalur District	26,800	1011

7	M/s The India Cements Limited, Dalavoi Village, Sendurai Taluk, Ariyalur District.	7800	1243.2
8	M/s. Chettinad Cement Corporation Limited, Karikali Village, Vadasandur Taluk, Dindigul District.	37500	10528
9	M/s. The India Cements Ltd, Padaveedu Village, Kumarapalayam Taluk, Namakkal District	8395	464.08
10	M/s. The India Cements Ltd, Naranammalpuram Part-1 Village, Sankar Nagar, Tirunelveli Taluk, Tirunelveli District.	21500	388
11	M/s. Chettinad Cement Corporation Limited, Puliur Village, Karur Taluk, Karur District	1,85,900	3263.8
12	M/s. TNPL Cement Plant, Pugalur Punjai Village, Manmangalam Taluk, Karur District	330000	113695.87
	TOTAL	1852688	168737.77

In order to encourage co-processing of hazardous wastes in cement kilns for beneficial purposes, four HW-Pre-processing facilities have been authorized for pre-processing of hazardous and other wastes so as to make a homogenized mixture of materials suitable for co-processing in the cement kilns for direct use either as raw material substitution or fuel supplementary. These facilities have pre-processed 32188.17 Tonnes of hazardous & other wastes during 2020-2021 & sent for co-processing in cement industries.

Common HW Disposal Facilities

There are two common Hazardous Waste Treatment Storage and Disposal Facilities (HW-TSDFs) in operation, one at Gummidipoondi in Tiruvallur district and another at Unduorumikidakulam in Virudhunagar district for scientific disposal of hazardous waste in safe manner.

Common HW-TSDF at Gummidipoondi is having secured landfill facility, commenced in November 2007 and incinerator facility, commissioned in November 2009. As of 31.03.2021, 5.83 lakhs tons of hazardous waste has been land filled and 0.47 lakh tons of hazardous waste has been incinerated in the facility. Common HW-TSDF at Virudhunagar is having only secured landfill facility, established in December 2016. As of 31.03.2021, 0.85 lakh tons of hazardous waste has been disposed in the facility.

S. No.	Name and Address of the Facility	Authorized Capacity	Disposal during 2020-2021
1	M/s. Tamil Nadu Waste Management Limited, SIPCOT Industrial Complex, Gummidipoondi, Tiruvallur District.	Permitted to dispose 1,00,000 TPA of landfillable hazardous waste in the secured landfill facility Permitted to incinerate 8000 T/Annum of incinerable hazardous waste in the common incinerator of capacity 1.5 T / hr.	55,747 MT 3874 MT
2	M/s. Tamil Nadu Waste Management Limited, Unduorumikidakulam Village, Tiruchuli Taluk, Virudhunagar District.	Permitted to dispose 2, 40,000 TPA of land fillable hazardous waste in the secured landfill facility.	19,045 MT

Online Facility for hazardous waste management

The Board has launched online application receipt and processing module on 01.03.2016 for grant of Authorization under HOWM Rules, 2016. Industries shall apply for Authorization under HOWM Rules, 2016 online and the track the status of the application and take print out of authorization order online after approval. As on 31st March 2021, 4199 industries have applied for Authorization under HOWM Rules, 2016 through online facility, out of which 4157 industries have been granted Authorization under HOWM Rules, 2016. Every year, industries/facilities covered under HOWM Rules, 2016 shall submit Annual Returns in FORM-4 to TNPCB on or before 30th day of June. The Board has developed online facility in OCMMS for submission of Annual Returns thro' online every year.

Tannery IETPs and CTEPs ZLD plant's mixed salt

Around 82860 tonnes of residual salt (mixed salt) generated from the Zero Liquid Discharge system of IETPs and CETPs of tannery sector are stored in the IETP & CTEPs premises. This needs to be disposed of for beneficial use. In this regard, the Board has directed the AISHTMA. The Board has also facilitated for a scientific study through Central Salt & Marine Chemicals Research Institute (CSMCRI), Bhavnagar, Gujarat. The CSMCRI came out a treatment system for purifying the mixed salt so as to meet the specifications to use in Chlor Alkali industry, Soda ash making, textiles, pulp and paper industry, etc where common salt is normally used as a raw material. M/s. Tuticorin Alkali Chemicals and Fertilizers

Limited, Thuthookudi has accepted to use the treated salt as raw material in their manufacturing process. The Board has directed the AISHTMA to speed up the process for installation of pilot plant. This is a milestone achievement in finding a solution for the long pending issue of disposal of mixed salt.

Textile dyeing units IETPs and CETPs ZLD plant's mixed salt

There is about 109375 Tons of mixed salt generated from agitated thin film dryer (ATFD) of the ZLD plants of Textile dyeing units is stored in the IETPs and CETPs premises. Based on the report of the TNPCB, the CPCB vide letter dated 03.08.2017 has given approval to a unit at Vedaranyam, Nagapattinam district for trial run for recovery of salt for industrial use by treatment of waste salts through salt pans. The Committee constituted by CPCB visited the plant and recommended to the CPCB. Based on the said recommendations, in June 2021 the CPCB has issued Standard Operating Procedure (SOP) for the utilization of waste salts generated from CETPs / ETPs of textile manufacturing / processing industries for recovery of salts for industrial use only.

5.4.6 Biomedical Waste Management

The Ministry of Environment, Forest and Climate Change, Government of India notified the Bio-Medical Waste Management Rules, 2016 and amended in March 2018. 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) are responsible for safe handling and disposal of the bio-medical wastes. The State Ministry of Health and Family Welfare have to ensure for effective implementation of the said Rules in all the health care facilities.

The State Pollution Control Board shall issue authorization to the health care facilities and CBMWTFs. It shall monitor the compliance of various provisions of the Rules. The TNPCB has implemented online application receipt and processing module on 01.03.2016 for applying and granting authorization. The Board has so far issued authorization to 25190 Private and Government hospitals including bedded hospitals, nursing homes, clinics, dispensaries, veterinary institutions, pathological

labs, blood banks, research institutions etc. All these hospitals have executed agreement with the CBMWTFs for the collection, transport, treatment and scientific disposal of the biomedical wastes.

The CBMWTFs consists of incinerator, autoclave, shredder and sharp pits for the treatment and disposal of biomedical waste received from the HCFs. In Tamil Nadu, there are 12 CBMWTFs, out of which ten facilities are in operation and two facilities at Ooty and Ramanathapuram have been issued with closure direction by the Board for non compliance of Bio Medical Waste Management Rules, 2016. The biomedical wastes generated from the Health Care Facilities attached to these two facilities are sent to nearby CBMWTFs for treatment and disposal. Accordingly bio-medical wastes generated from the HCFs in the Nilgiris district are collected and handed over to the M/s. Kovai Biowaste Management (P) Ltd, Coimbatore and in Ramanathapuram district, bio-medical wastes are collected and handed over to M/s. Ramky Energy and Environment Ltd., Virudhunagar for treatment and disposal. On an average, 35 Tons/day of bio-medical wastes are handled by these 10 facilities. In addition, three common facilities are under establishment in Gummidipoondi, Hosur and Tiruppur, and one more facility in Tiruvallur is under pipeline.

District wise daily average generation of Bio-Medical Waste

S. No.	District Office	Quantity of generation of bio-medical wastes (kg / day)
Chennai Zone		
1.	Ambattur	342.76
2.	Chennai	9671.24
3.	Maraimalainagar	2515
4.	Sriperumbudur	1096
5.	Gummidipoondi	37.5
6.	Tiruvallur	537.5
Vellore Zone		
7.	Vellore	3828
8.	Vaniyambadi	476
9.	Dharmapuri	237.27
10.	Villupuram	795
11.	Hosur	245
12.	Tiruvannamalai	701

Salem Zone		
13.	Erode	161.30
14.	Namakkal	131.40
15.	Perundurai	178.70
16.	Salem	302.46
17.	Karur	145.00
18.	Kumarapalayam	93.60
Coimbatore Zone		
19.	Coimbatore South	1550
20.	Coimbatore North	1950
21.	Tiruppur North	400
22.	Tiruppur South	353
23.	Ooty	120
Trichy Zone		
24.	Ariyalur & Perambalur	194.2
25.	Trichy	855
26.	Pudhukottai	108.17
27.	Thanjavur	393.86
28.	Nagapattinam	224.17
29.	Cuddalore	623
Madurai Zone		
30.	Madurai	2406.92
31.	Theni	385
32.	Sivagangai	153.11
33.	Ramanathapuram	230.16
34.	Dindigul	421.24
Tirunelveli Zone		
35.	Tirunelveli	1424
36.	Thoothukudi	584.33
37.	Nagercoil	1069.49
38.	Virudhunagar	329.37
Total		35269.74

List of Common Bio-Medical Waste Treatment Facilities in Tamil Nadu

S. No.	Name & Address of the CBMWTFs	Areas covered
1	M/s. G. J. Multiclave (India) Pvt Ltd, Thenmelpakkam, Chengalpattu Taluk, Chengalpattu District.	Part of Chennai & Kancheepuram Districts
2	M/s. Tamilnadu Waste Management Ltd., Kinnar village, Maduranthakam Taluk, Chengalpattu Dist	Cuddalore, Chennai (North), Part of Kancheepuram, Tiruvallur Districts

3	M/s. Medicare Enviro Systems, Sengipatti, Thanjavur Taluk, Thanjavur District.	Thanjavur, Thiruvarur, Trichy, Nagapattinam, Pudukottai, & Sivagangai Districts
4	M/s. Ken Bio Links Private Ltd., Kandipedu, Katpadi Taluk, Vellore District.	Vellore & Tiruvannamalai Districts
5	M/s. Ramky Energy and Environment Ltd, Thangayur, Salem District.	Salem, Namakkal, Erode, Dharmapuri, Krishnagiri & Karur Districts
6	M/s. Teknotherm Industries, Orattukuppai, Coimbatore District.	Coimbatore, Nilgiris & Tiruppur Districts
7	M/s. Aseptic System Bio Medical Waste Management Co., Pappankulam, Tirunelveli District.	Tirunelveli, Thoothukudi & Kanyakumari Districts
8	M/s. Ramky Energy and Environment Ltd., Unduormikidaikulam, Virudhunagar District.	Madurai, Virudhunagar, Dindigul, Theni & Ramanathapuram Districts
9	M/s. Kovai Biowaste Management (P) Ltd, No.402,4TH Floor, Ramani's Fraser Square, Goods Shed Road, Coimbatore -1	Coimbatore, Tiruppur & Nilgiris Districts
10	M/s. Society for Bio Medical Waste Management Ottupattarai Village, Coonoor	Nilgiris Districts (Under Closure))
11	M/s. Neat and Clean Service Squad, Muthuvayal, Ramanathapuram District	Ramanathapuram District (Under closure)
12	M/s. Pondicherry Solid Waste Management Company Private Limited, S.F.No.275/2, T. Pudaiyur village, Virudhachalam Taluk, Cuddalore District	Cuddalore, Villupuram, Perambalur, Ariyalur, Kallakurichi

5.4.6.1 COVID-19 bio medical waste management

The Government of Tamil Nadu is taking several steps for the control of outbreak of COVID-19 pandemic. COVID-19 patients are given treatment in certain HCF's and samples of COVID-19 patients are tested in certain diagnosis labs / centers. The suspected patients are quarantined and monitored in quarantine camps / homes or home care facilities. The CPCB has issued guidelines for Handling, Treatment and Disposal of waste generated during Treatment / Diagnosis / Quarantine of COVID-19 patients. The TNPCB has issued press release in this regard.

Accordingly, COVID-19 bio-medical waste generated from the isolation wards of HCFs / Quarantine camps / homes or home care facilities / Testing Centers / Labs & ULBs are collected, transported, treated and disposed by the ten CBMWTFs. The daily collection and disposal of COVID-19 bio-medical waste details are uploaded in TNPCB website.

5.4.7 E-Waste Management

The MoEF&CC, GoI have notified the E-Waste Management Rules, 2016. Electronic waste or e-waste comprises old and end of life electrical and electronic appliances such as telephones, cellular telephones, computers, laptops, television sets, refrigerators, washing machines, air-conditioners, fluorescent and other mercury containing lamps etc. The Rules apply to every Manufacturer, Producer, Consumer, Bulk Consumer, Collection Centre, Dealer, E-Retailer, Refurbisher, Dismantler and Recycler involved in the manufacture, sale, transfer, purchase, collection, storage and processing of e-wastes or electrical and electronic equipments.

As per the Rules, 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 Producer Responsibility (EPR). The CPCB issues EPR authorization to the Producers for environmentally sound management of e-waste. Totally, 89 Producers located in the State of Tamil Nadu have obtained EPR Authorization from the CPCB. As per the Rules, SPCB shall grant and renew authorization to the Manufacturers, Dismantlers, Recyclers and Refurbishers. So far the TNPCB has issued authorization to 35 units (30 Dismantlers, 4 Recycler and 1 Refurbisher).

The Hon'ble National Green Tribunal (Principal Bench) in its order dated 12.02.2019 in O.A.No.512/2018 has adopted the action plan submitted by CPCB for management of E-Wastes generated in India. As per the orders of the Hon'ble NGT, the Board is conducting periodical inspection of EPR authorized Producers, Dismantlers, Recyclers and Refurbishers for verification of conditions stipulated in the authorization for environmentally sound recycling and to take action against the violators. The Board submits the quarterly verification report of EPR authorized Producers, Dismantlers, Recyclers and Refurbishers to the CPCB.

The Board is maintaining online information on authorizations granted to the Dismantlers, Recyclers and Refurbishers. As per the annual return furnished by the E-waste Dismantlers, Recyclers and Refurbishers, about 28305.89 Tons e-waste is collected, dismantled and recycled during the year 2020-21. As per the Rules, the SPCB shall carryout e-waste inventorization. Accordingly, the TNPCB has awarded

the project of e-waste inventerisation in the State to the National Productivity Council. **The National Productivity Council has submitted its draft report.**

List of authorized e-waste dismantlers in Tamil Nadu

S. No.	Name of the Dismantlers	Authorization validity
1	M/s. A.K.Enterprises, No.12, Chakarapani St, Velachery, Chennai-32.	15.03.2021
2	M/s. Abishek Enterprises S.F. No.2G, 2NP, Ambattur, Chennai – 600098.	31.03.2021
3	M/s. AER Worldwide India Pvt. Ltd., No.774,Elandandheri, Sadayankuppam Village, near Andarkuppam Check Post, Manali New Town, Chennai – 600103.	25.11.2024
4	M/s. Earth Sense Recycle Private Limited S.F. No.247, Thenmelpakkam Village, Chengalpattu Taluk, Chengalpattu District.	05.12.2024
5	M/s. Ecosible Recyclers Pvt. Ltd., No.154A/B,8th Mahatma Gandhi Road, Tass Industrial Estate, Ambattur, Chennai – 600098.	31.03.2023
6	M/s. Enviro Metals Recyclers Private Limited Pvt. Limited Aluminium Division, S.No.104 and 106, Ezichur Village, Sriperumbudur Taluk, Kancheepuram District.	03.12.2024
7	M/s. Envirogreen E waste recycling Solutions, S.F. No.2134, Plot No. 65, Palur Village, Chengalpattu Taluk & District.	31.03.2025
8	M/s. G S Enterprises, S.F. No.254/2A2A, Mevalurkuppam Village, Sriperumbudur Taluk, Kancheepuram Dist 602105.	27.01.2024
9	M/s. Green E Waste Private Limited, S.F. No.294/pt, Ayanambakkam Village, Poonamallee Taluk, Tiruvallur District.	14.06.2025
10	M/s. Green Era Recyclers, S.F. No.344/2, Kavundampalayam Village, Coimbatore North Taluk, Coimbatore District – 641 025.	31.03.2022
11	M/s. Green India Recyclers, S.F. No.26/1B, Kovilpalayam Road, Soolakkal Village, Kinathukadavu Taluk, Coimbatore – 642110.	07.12.2022
12	M/s. JADG India E-Waste Recyclers Pvt. Ltd., S.F. No.256/1A1, Kollur Village, Kilikodi Post, Ponneri Taluk, Tiruvallur-District - 601206.	16.03.2022
13	M/s. K.P.P enterprises, No. 535-3C, Santhavellore Village, Sunguvarchatram Post, Sriperumbudur Taluk, Kancheepuram District.	30.03.2023
14	M/s. Leela Traders, S.F. No.41/1 part, Cuddalore Village, Chengalpattu Taluk, Chengalpattu District.	31.03.2023
15	M/s. Micro E-Waste Recyclers, 3/3B, Chennai Bye Pass road, Senthaneer puram, Trichy – 620 004.	17.08.2022
16	M/s. MG Traders, No. 86, Nehru Street, Teachers colony, Ambattur, Chennai - 600053.	12.01.2024
17	M/s. Ponniamman Enterprises, S.F. No.216/3, Tiruvallur Village, Tiruvallur Taluk, Tiruvallur District.	31.03.2023
18	M/s. Punithan Enterprises UNIT-II, No.113/19 Part, Rajiv Nagar, Perinjambakkam, Gundu Perumbedu Post, Sriperumbudur Taluk, Kancheepuram District 601301.	14.06.2025

19	M/s. R.M Computers, 405/6,T.H.Road,G.C.K Complex 1st floor Ambattur Chennai – 600098.	04.12.2024
20	M/s. RBIA Minerals and Metals Pvt Ltd, S.F. No.205-1B2A, Kandur Village, Sriperumbudur Taluk, Kancheepuram District.	23.04.2022
21	M/s. SKV E-Waste Recycling Pvt Ltd, No.154 A&B, First Floor, 8th Mahatma Gandhi Road, Tass Industrial Area, Ambattur SIDCO Industrial Estate, Chennai - 600098	11.03.2026
22	M/s. S.P.P. Enterprises, S.No.184-4C, Mambakkam Village and Post, Sriperumbudur Taluk, Kancheepuram District.	12.07.2023
23	M/s. Shri Raam Recycling, No.DP-29, SIDCO Industrial Estate, SIPCOT Industrial Complex, Gummidipoondi Taluk, Tiruvallur District – 601201.	06.12.2022
24	M/s. Southern alloys, S.F. No.61p & 62p Plot No. S – 10 & 106, Putlur Village, Tiruvallur Taluk, Tiruvallur District.	06.09.2020
25	M/s. SEZ Recycling, TP-7, 4 th Avenue, Mahendra World City Developers Limited, Industrial Estate, S.F. No.42/1, 43, 44, Thenmelpakkam Village, Chengalpattu Taluk, Kancheepuram District.	22.11.2022
26	M/s. Trishyaya Recycling Private Limited, Plot No. 7, Phase – I, MEPZ-SEZ, Tambaram, Chennai – 45.	03.07.2024
27	M/s. Trittech Systems, S.F.No.165, Porur village, Maduravoyal Taluk, Chennai -600116.	16.08.2022
28	M/s. Virogreen India Pvt. Ltd, No.297/1B2, No.49, Pappankuppam Village, SR Kandigai Road, Gummidipoondi Taluk, Tiruvallur-601201.	31-03-2021
29	M/s. World Scrap Recycling Solution, S.F. No.351/7, Beemanthangal Village, Sriperumbudur Taluk, Kancheepuram District.	24.02.2021

List of authorized E-Waste Recyclers in Tamil Nadu

S. No.	Name of the Recyclers	Authorization validity
1	M/s. TES-AMM INDIA PVT LTD, Plot No.A18, SIPCOT Industrial Growth Centre, Oragadam, Sriperumbudur Taluk, Kancheepuram District.	14.08.2021
2	M/s. Victory Recovery and Recycle Technologies India Private Limited, Kannur Village, Tiruvallur Taluk & District.	30.08.2022

5.4.8 Battery Waste Management

The MoEF&CC, GoI have notified the Batteries (Management and Handling) Rules, 2001 as amended, 2010. As per the Rules, battery means lead acid battery which is a source of electrical energy. This Rule applies to every Manufacturer, Importer, Re-conditioner, Assembler, Dealer, Recycler, Auctioneer, Consumer and Bulk Consumer involved in manufacture, processing, sale, purchase and use of batteries or components thereof. As per Rule 12 of the said Rules, the prescribed authority for ensuring compliance of the provisions of these Rules shall be the State Board. The annual return status submitted to CPCB for year 2020 is given below.

A). Manufacturers

Number of Manufacturer	Number of Manufacturers submitted returns	Quantity of batteries Sold		Quantity of used batteries sent to Authorized Recyclers		No of collection centers	No of dealer	No of registered Dealers
		Nos.	Weight (Kg)	Nos.	Weight (Kg)			
22	21	5467660	33714130	781209	5046687	163	1277	917

B). Assemblers

Number of Assemblers	Number of Assemblers submitted returns	Quantity of batteries Assembled and Sold		Quantity of used batteries sent to Authorized Recyclers	
		Nos.	Weight (Kg)	Nos.	Weight (Kg)
8	7	39006	614114	242	9306

C). Importers

Number of Importer	Number of Importer submitted returns	Quantity of batteries Sold		Quantity of used batteries sent to Authorized Recyclers	
		Nos.	Weight (Kg)	Nos.	Weight (Kg)
9	9	4885	21685	0	0

D). Bulk Consumers

Number of Bulk Consumers	Number of Bulk Consumers submitted returns	Quantity of batteries Sold		Quantity of used batteries sent to Authorized Recyclers	
		Nos.	Weight (Kg)	Nos.	Weight (Kg)
64	64	92869	2684909.4	62917	2108817.37

E). Auctioneers

Number of Auctioneers	Number of Auctioneers submitted returns	Quantity of batteries Sold		Quantity of used batteries sent to Authorized Recyclers	
		Nos.	Weight (Kg)	Nos.	Weight (Kg)
4	4	9997	546078	9965	546078

F). Recyclers

No. of Authorized Recyclers	Capacity of Recyclers in MT/Year	Number of recyclers submitted returns	Weight of used batteries received from and recycled (T/A)							
			Manufacturer	Assembler	Dealer	Importer	Bulk Consumer	Auctioneer	Self-Imported	Other sources
27	339925	14	381.522	0	25064.168	0	10696.51	5768.45	13072.49	1557.731

CHAPTER – 6

ENVIRONMENTAL QUALITY MONITORING PROGRAMMES

6.1 AIR QUALITY MONITORING

Air pollution is caused mainly by transportation, fuel combustion in stationary sources, burning of fossil fuels like coal, wood and construction activities. Motor vehicles produce high levels of carbon monoxide (CO), hydrocarbons (HC) and nitrogen oxides (NO). Construction activities, bad roads and burning of fossil fuels are responsible for dust (particulate matter) pollution. Residential and commercial activities also contribute to air pollution. Human health is affected due to poor air quality. Principally, air pollution affects the body's respiratory system and the cardiovascular system. Under the provisions of the Air (Prevention and Control of Pollution) Act, 1981, the Government of Tamil Nadu have declared the entire state of Tamil Nadu as air pollution control area vide G.O. Ms. No. 4 Environment Control Department, dated 28.09.1983.

6.1.1 Ambient Air Quality Monitoring in Chennai

The Board is operating eight ambient air quality monitoring stations in Chennai under National Air Quality Monitoring Programme (NAMP) funded by the CPCB. The eight ambient air quality monitoring stations in Chennai are

S. No.	Station location	Land use zone / area
1	Adyar	Residential area
2	Anna Nagar	Residential area
3	Kilpauk	Commercial area (Traffic intersection)
4	Kathivakkam	Industrial area
5	Manali	Industrial area
6	Nungambakkam	Commercial area (Traffic intersection)
7	Thiruvottiyur	Industrial area
8	T.Nagar	Commercial area (Traffic intersection)

All the above stations are functioning on 24 hours basis, twice a week. The samples collected from NAMP stations are analysed for the PM₁₀ (particulate matter less than 10 microns), PM_{2.5} (particulate matter less than 2.5 microns) and gaseous pollutants such as Sulphur di oxide (SO₂) and Nitrogen di Oxides (NO₂). The annual average values recorded from April 2020 to March 2021 reveals that PM₁₀, PM_{2.5} was well within the standards. This is mainly due to lock-down in view of COVID-19. The parameters SO₂ and NO₂ were also within the standards ([Annexure- 6](#)). The air quality data and the Air Quality Index (AQI) bulletin are uploaded in the TNPCB web

site regularly. The daily monitoring data is also displayed in electronic display board at TNPCB Head Office, Guindy to create awareness to the general public.

Action for improvement of air quality of Chennai

A public interest petition (O.A.No.422 of 2013) was filed before the Hon'ble National Green Tribunal Southern Bench with a prayer of making Chennai free from pollution and also to protect the wellness of residents and environment of the city. The Hon'ble NGT directed for a scientific study by the CPCB and TNPCB. The CPCB and TNPCB have carried out a detailed study of Chennai air quality and submitted a report in April 2019 to the Hon'ble NGT. The study concluded that vehicular emissions contribute major sources of air pollution which need to be controlled to the maximum possible level adopting alternate clean and green fuels like Compressed Natural Gas (CNG) particularly in urban centers. The study report is also sent to the Government for further action.

6.1.2 Ambient Air Quality Monitoring in Other Cities and Major Towns

Under the NAMP, the TNPCB also monitors the ambient air quality in other major cities and towns and industrial clusters in Tamil Nadu. The station locations are given below.

S. No.	Station location	Land use zone
Thoothukudi		
1	Raja Agencies	Industrial zone
2	SIPCOT	Industrial area
3	A.V.M. Building	Mixed zone
Coimbatore		
4	District Collector's Office	Mixed zone
5	Ponniyarajapuram	Residential zone
6	SIDCO Building	Industrial zone
Salem		
7	Siva Tower	Mixed zone
Madurai		
8	Pichaipillai Chavadi	Industrial zone
9	Birla Guest House	Mixed zone
10	Hotel Tamil Nadu	Residential zone
Trichy		
11	Thennur	Commercial zone
12	Main Guard Gate	Traffic intersection
13	Bishop Heber College	Mixed zone
14	Golden rock	Residential zone
15	Central bus stand	Traffic intersection
Cuddalore		
16	Echankadu Village	Residential zone
17	Imperial Road	Commercial zone

18	SIPCOT	Industrial zone
Mettur		
19	Raman Nagar	Residential zone
20	SIDCO	Industrial zone

All the above monitoring stations under NAMP functions on a 24 hour basis, twice a week. The samples collected from these stations are analysed for the PM₁₀, PM_{2.5}, SO₂ and NO_x. The ambient air quality data recorded during 2020-2021 indicates that the parameters Sulphur dioxide and Nitrogen dioxide are well within the standards in all the stations. The annual average values of PM₁₀ was found to be exceeded the standards in some of the stations. The exceedance of PM₁₀ is mainly due to the increase in number of vehicles, resuspension of surface dust, heavy commercial and industrial activities. The annual average values of pollutants recorded at the above monitoring stations during the period 2020-2021 is given in **Annexure 6**. The air quality data and the Air Quality Index (AQI) are uploaded in the TNPCB web site. The data is also uploaded in the CPCB portal.

6.1.3 Expansion of stations under the National Air Quality Monitoring Programme (NAMP)

In order to cover all the Districts under the NAMP programme, the Board has proposed to increase the present 28 NAMP stations to 52 stations. Accordingly, three monitoring stations each were installed in eight districts (i.e.) Dharmapuri, Nagercoil, Perambalur, Sivagangai, Tiruvarur, Theni, Villupuram and Thiruvannamalai. All the stations were commissioned except in Thiruvannamalai. The monitoring stations at Thiruvannamalai will be commissioned shortly

6.1.4 Continuous Ambient Air Quality Monitoring Stations

A part from NAMP stations, in order to monitor the ambient air quality on real time continuous basis in major cities and industrial clusters, the Board installed 34 nos. of Continuous Ambient Air Quality Monitoring Stations (CAAQMS). Out of which five stations are in Chennai (viz.) Koyambedu, Royapuram, Perungudi, Kodungaiyur and Manali. The remaining stations are at Gummidipoondi, Thoothukudi, Perundurai, Coimbatore, Thiruvallur, Kancheepuram, Chengalpattu, Vellore, Ranipet, Krishnagiri, Trichy (2 stations), Dindigul, Salem, Cuddalore (2 stations), Nagapattinam, Ariyalur, Thanjavur, Pudukkottai, Karur, Namakkal, Tiruppur, Coimbatore, Uthagamandalam, Ramanathapuram, Madurai, Virudhunagar, and Tirunelveli. PM₁₀, PM_{2.5}, SO₂, NO₂,

NH₃, O₃, CO and BTX are monitored. The data recorded in CAAQMS during the year 2020-2021 is given in Annexure-7. The AAQ data and AQI on real-time are linked to the TNPCB website.

In addition to the above, 17 category industries and certain major Red-Large industries have installed CAAQMS in their plant vicinity and the same is connected to Care Air Centre of TNPCB. As such 115 stations are connected to CAC.

6.1.5 Mobile Continuous Ambient Air Quality Monitoring Station

The TNPCB has commissioned one mobile continuous ambient air quality monitoring station in March 2016 to monitor the ambient air quality on real time basis. The mobile station has the facility to monitor the ambient air parameters Sulphur di oxide (SO₂), Nitrogen di oxides (NO₂), Ammonia (NH₃), Ozone (O₃), Carbon monoxide (CO), Benzene, Toluene, Ethylbenzene, Xylene (BTEX), Particulate matter less than 10 micron (PM₁₀) and Particulate matter less than 2.5 micron (PM_{2.5}). The station also has weather monitoring station to measure wind direction, wind speed, ambient temperature, relative humidity, solar radiation, rainfall, barometric pressure etc. This mobile station is used to monitor the air quality in the hotspots of Chennai city and other places wherever necessary. During the period 2020-21, totally 76 surveys were conducted in the districts of Chennai, Kancheepuram, Chengalpattu, Tiruvallur and Namakkal. The survey includes routine monitoring in the industrial area, survey based on public complaint / court cases, air quality monitoring in the Trade Fair at Island Grounds, survey during Deepavali and COVID-19 lockdown periods.

6.1.6 Environmental Quality Monitoring during Festivals

Every year, the people of Tamil Nadu celebrate various festivals like Pongal (Bhogi), Vinayagar Chaturthi and Deepavali. While celebrating the festivals there is a possibility of environment pollution to water bodies and ambient air quality. The CPCB has developed specific guidelines for the monitoring air and water quality during the festival celebrations. Accordingly, the TNPCB is monitoring ambient air quality during Pongal (Bhogi) festival, ambient air quality & noise level during Deepavali in major cities, water quality of specified water bodies during Vinayagar Chaturthi festival. AAQ survey conducted during Deepavali 2020 is given [Annexure-8](#).

6.1.7 Air Quality Study in Chennai during COVID-19 Lockdown

In view of COVID-19 pandemic, the Government has announced total lock down during April-June 2020. The lockdown period noticed near total cessation of air traffic flow, railway transport except cargo, complete shutdown of public transport services like buses, sub-urban electric trains, metro trains, autos and taxis, substantial reduction in volume of private cars and two wheelers. In the industrial sector as well, other than essential category units, the rest were shut down. Entertainment and hospitality industries, educational institutions, private and Government offices, religious and social gatherings were also brought under total lockdown. Such extensive containment measures provided an opportunity for Nature to recuperate. In the midst of lockdown, people in urban centers began to enjoy the benefits of a clean living environment. The brighter side of COVID-19 is seen in the cleaner environmental elements like air and water. In this context, TNPCB launched a study of the impact of COVID-19 lockdown on the Air Quality of Chennai and its surroundings. The data on air quality and the concentration of individual air pollutants obtained from the CAAQM stations of TNPCB and CPCB were compiled and studied to evaluate the quantitative improvements in the quality of Chennai region's air shed. The results and the implications were brought as publication.

https://tnpcb.gov.in/pdf_2020/ImpactCovid19.pdf

6.1.8 Care Air Centre

In order to monitor both source emissions and ambient air quality on a real time basis of the industries, the TNPCB established Care Air Centre at the Corporate Office, Chennai. This is a continuous real time emission monitoring system of connected industries pertaining to 17 category of highly polluting industries, Red Large industries, common hazardous waste incinerator facility and common bio-medical waste treatment facilities. It functions on a 24x7 basis. When the emission levels exceed the norms, the inbuilt system will inform the concerned industry and the District Environmental Engineer, through an automated short messaging system (SMS) and electronic mail (e-mail) to take immediate remedial action. Upto 31.03.2021, 405 units for stack monitoring and 154 units for ambient air quality monitoring are connected to this centre. District wise number of units connected to CAC is given in table below.

S. No.	District Name	Number of Industries	No. of 17 Category Industries	Stack	Ambient	Water
1	Ariyalur	23	9	11	11	7
2	Chengalpattu	47	6	27	11	15
3	Chennai	13	0	4	7	3
4	Coimbatore	71	1	64	3	5
5	Cuddalore	61	18	27	18	36
6	Dharmapuri	5	2	3	0	2
7	Dindigul	10	1	6	1	4
8	Erode	75	5	17	3	58
9	Kallakurichi	7	3	3	0	4
10	Kancheepuram	30	1	19	8	9
11	Kanyakumari	0	0	0	0	0
12	Karur	11	4	5	3	5
13	Krishnagiri	27	5	16	4	9
14	Madurai	5	2	3	0	2
15	Mayiladuthurai	2	1	2	0	0
16	Nagapattinam	11	1	6	0	6
17	Namakkal	11	5	5	2	5
18	Perambalur	7	4	3	0	4
19	Pudukottai	6	1	2	2	2
20	Ramanathapuram	8	0	4	0	6
21	Ranipet	9	2	4	2	4
22	Salem	29	4	17	10	11
23	Sivagangai	7	2	4	0	4
24	Tenkasi	0	0	0	0	0
25	Thanjavur	9	4	3	0	6
26	The Nilgiris	4	0	1	0	3
27	Theni	3	2	0	0	3
28	Tirunelveli	18	3	9	2	11
29	Thiruvallur	126	27	74	43	35
30	Tiruvarur	1	0	0	0	0
31	Tirupathur	8	6	2	0	6
32	Tiruppur	61	2	9	0	52
33	Tiruvannamalai	5	3	3	0	2
34	Trichy	18	6	11	3	7
35	Tuticorin	32	10	15	13	13
36	Vellore	37	6	15	5	20
37	Viluppuram	10	6	4	0	7
38	Virudhunagar	13	2	7	3	4
Total		820	154	405	154	370

6.1.9 Non Attainment Cities

The CPCB has identified 122 cities as non attainment cities in India including Thoothukudi in Tamil Nadu based on the monitoring data for the period 2011-2015. The Hon'ble NGT in its order dated 8.10.2018 in O.A No 681 of 2018 has directed the TNPCB to prepare and finalize the action plan for the non attainment city – Thoothukudi in coordination with various Government Departments. Accordingly, action plan was prepared and the same was approved by the CPCB. The action plan for the Thoothukudi city is now under implementation in coordination with various stake holders. The Hon'ble NGT (PB), Delhi in its order dated 06.08.2019 has also identified Trichy as non attainment city for which action plan to improve the air quality was prepared and forwarded to the CPCB for approval. During the year 2020, the Madurai city was also declared as Non attainment city and action plans are prepared and the same was approved conditionally.

6.1.10 Retrofitting of Emission Control Devices in DG Sets

The MoEF&CC, GoI have launched National Clean Air Programme (NCAP) for the prevention, control and abatement of air pollution level in the country at urban and regional levels. In this matter, the Hon'ble National Green Tribunal (Principal Bench) in its order dated 06.08.2019 in O.A. no. 681 of 2018 has observed that *'the timeline to reduce the air pollution by 30% needs to be reduced and the target of reduction needs to be increased having regard to adverse effect on public health and in view of constitutional mandate of fundamental right to breathe clean air. It further states that the air pollution caused by DG sets needs to be a part of the action plans, which may, if necessary, require retrofitting of Emission Control Device / Equipment on generators already in use.'* Accordingly the TNPCB has issued directions to all the industries and other establishment operating DG sets with capacity of 125 KVA and above to retrofit with emission control devices with particulate matter capturing efficiency of at least 70% on or before 31.03.2022 in all the cities except Chennai urban amalgamation (UA), Trichy UA, Madurai UA and Thoothukudi towns in which the directions for the retrofitting of DG sets with capacity of 125 kVA has to be implemented immediately.

6.2 WATER QUALITY MONITORING

6.2.1 National Water Quality Monitoring Programme

The TNPCB is monitoring the inland water quality under two major programmes namely Global Environmental Monitoring System (GEMS) from 1984 and Monitoring of Indian National Aquatic Resources (MINARS) from 1988. Latter the programmes are renamed as National Water Quality Monitoring Programme (NWMP). Under this programme, major rivers and lakes water quality is monitored. Accordingly eight rivers i.e., Cauvery and its tributaries, Bhavani, Sarabanga, Vasista, Thirumanimutharu, Tamiraparani, Palar and Vaigai and eight lakes at Ooty, Kodaikanal, Yercaud, Veeranam, Porur, Poondi, Pulicat and Redhills are monitored totally at 58 stations periodically. The programmes are funded by the CPCB on a 70:30 basis.

Generally the water quality of the rivers and lakes are categorized under Class A, B, C, D and E based on its Designated Best Use (DBU) as per CPCB criteria. Class A - Drinking Water Source without conventional treatment but after disinfection; Class B - Outdoor bathing (organized); Class C - Drinking water source after conventional treatment and disinfection; Class D - Propagation of wild life and fisheries; Class E-Irrigation, Industrial Cooling, and Controlled Waste Disposal. The monitoring data is uploaded in the TNPCB web site as well as in the CPCB portal.

6.2.1.1 River Cauvery and its Tributaries

The River Cauvery is the major river in the State which is the source of water for more than one third of the State. Samples are collected at 33 stations. The samples are analysed in Board Laboratories. The mean values of water quality at sampling stations are given in [Annexure 9A, 9B and 9C](#). The overall analysis of the data reveals that the contamination of surface water of the river is due to the unhygienic anthropogenic activities and disposal of either untreated or partially treated domestic waste into the river systems directly or indirectly.

Generally, the water quality of river Cauvery at Musiri Bore well falls under Class 'A', the stations in Cauvery at Mettur, Pallipalayam, Musiri Ferry gate, Bathirakali Amman Koil, Sirumugai, Bhavanisagar, Bhavani, R.N.Pudur, Vairapalayam, P.Velur, Mohanur, Madathukulam, Trichy downstream, Grand Anicut, Colerron, Pitchavaram, Urrachikottai, Pettaivaithalai, Kumbakonam,

Mayiladuthurai, Sathyamangalam, Kalingarayan Canal B5, and Kalingarayan Canal B10 falls under Class 'B', the station in river Cauvery at Chirampalayam, Thirumukkudal, Karunthattankudi, Trichy upstream, Kumarapalayam, Pugalur falls under Class 'D' and the station in river Thirumanimutharu at Uthamasolapuram, in river Vasista at Thulukkanur falls under Class 'E'.

6.2.1.2 River Tamiraparani

The water quality of the Tamiraparani River is being monitored on monthly basis at 12 stations. The physico-chemical parameters and biological parameters are analysed in the AEL, Tirunelveli and the details are furnished in [Annexure 10](#). The analysed data reveals that the water quality falls under class 'A' and 'B', i.e., the water quality in the stations at Papanasam, Cheranmadevi, Thiruvudaimarudur, Ambasamudram and Kallidaikurichi falls under Class 'A', the water quality in the stations at Kokirakulam, Murapanadu, Authoor, Eral, Srivaikuntam, Vellakovil and Sivalaperi falls under Class 'B'.

6.2.1.3 River Palar

The water quality of River Palar is being monitored every month in one monitoring station at Vaniyambadi Municipal Head Works. The analysis of water samples is done in the AEL, Chennai, for physico-chemical and biological parameters. The water quality of the Palar River collected from infiltration well falls under Class 'B' and details are furnished in the [Annexure 11](#).

6.2.1.4 River Vaigai

The water quality of the Vaigai river is being monitored once in six months from the collection well of Thirubuvanam head works. The sample is [analysed in the](#) AEL, Madurai for physico-chemical and bacteriological parameters.

6.2.1.5 Lakes

Under NWMP programme, the water quality of Ooty, Kodaikanal, Yercaud, Veeranam, Porur, Poondi, Pulicat and Redhills lakes are monitored on monthly basis. The mean value of water quality is furnished in [Annexure 12](#). The water quality of Yercaud Lake, Kodaikanal, Veeranam, Poondi, Redhills, Porur and Pulicat falls under Class 'B'. The water quality of lakes at Ooty falls under Class 'D'.

6.2.2 Expansion of stations under National Water Quality Monitoring Programme (NWMP)

In January 2020, the Board has included 18 new stations under the NWMP. These stations are intended for monitoring the ground water quality considering the vulnerability of ground water pollution. Out of 18 stations, 4 stations will be monitored on monthly basis and 14 stations will be monitored on a half yearly basis. The stations are located at are various districts: viz. Erode (2), Karur (2), Tirunelveli (2), Thoothukudi (5), Trichy (2), Tiruvallur (1), Salem (3) and Namakkal (1). **The data is given in Annexure-13.**

6.2.3 National River Conservation Plan (NRCP)

As per the directions of the Hon'ble National Green Tribunal (PB) in O.A. No. 673 of 2018 in the matter of polluted river stretches, the CPCB has sanctioned additionally 51 stations for monitoring the water quality of rivers and sewage outfalls in the State. Out of 51 stations, 35 stations are in river Cauvery and its tributaries, Vaigai, Vennar, Tamiraparani, Palar, Adyar, Coovum, Buckingham Canal and Otteri Nallah, 16 stations are at the outlet of STPs in major cities viz, Chennai, Bhavani, Erode, Pallipalayam, Kumarapalyam, Mayiladuthurai, Madurai, Trichy, Thanjavur, Kumbakonam, Tirunelveli. Samples are collected in these stations on monthly basis from June onwards. The data is given in Annexure 14.

6.2.4 Chennai City Waterways Monitoring Programme

The TNPCB is monitoring the water quality of four waterways in Chennai city (i.e) Adyar River, Buckingham Canal, Cooum River and Otteri Nallah to assess the pollution level by collecting monthly samples from April 2003 both in water bodies and sewage / industrial outlets into the said water bodies. Totally there are 30 monitoring locations. The Report of analysis of the above stations is given in **Annexure-15A, B, C and D**. The report reveals that the BOD, COD, TDS and Chlorides are at high levels. The reason for pollution of the water bodies is mainly due to the mixing of sewage from the unsewered areas, settlements along the bank of the water bodies and also due to dumping of solid wastes. The restoration of Chennai city water ways is entrusted with Chennai River Restoration Trust. The Trust formulates plans and undertakes implementation of programmes on restoration of Chennai city water ways in co-ordination with the line Departments. Accordingly,

Integrated Coovum River Eco-Restoration Project and Adyar River Restoration Projects are being implemented by the respective line Departments.

6.2.5 Noyyal River Water Quality Monitoring

In order to monitor the Noyyal river water quality in the Textile Industrial cluster of Tiruppur, the Board monitors the quality of Noyyal river water at the upstream, middle and downstream of Tiruppur. Noyyal River enters Tiruppur at Agraharapudur (Upstream) and exits at Anaipalayam-Kathankanni (Downstream). The samples are collected at Agraharapudur, Kasipalayam, Anaipalayam-Kathankann and Orathupalayam Dam. As per the 2020-21 data, the TDS level at the upstream (Agraharapudur) was in the range of 1092-3752mg/L, at the downstream near (Anaipalayam-Kathankanni) 1232-2168 mg/L and in the Orathupalayam dam 1256-2492 mg/L. **The TDS data is given in Annexure-16.**

6.2.6 Polluted River Stretches

The CPCB has identified six numbers of river stretches in Tamil Nadu as 'Polluted River Stretches' based on the Bio-Chemical Oxygen Demand (BOD) levels in the rivers and categorized that into five priorities (Priority I: BOD > 30mg/l, Priority II: BOD 20 to 30mg/l, Priority III: BOD 10 to 20 mg/l, Priority IV: BOD 6 to 10 mg/l, Priority V: 3 to 6 mg/l).

1. River Sarabanga – Thathayampatti to T. Konagapadi Stretch – (15 Kms) – Priority – I.
2. River Thirumanimuthary – Salem to Papparapatti Stretch – (15Kms)-Priority-I
3. River Vasista – Manivilundhan to Thiyaganur Stretch – (10Kms) – Priority-I.
4. River Cauvery – Mettur to Mayiladuthurai Stretch – (200 Kms) – Priority-I.
5. River Bhavani-Sirumugai to Kalingarayan Stretch – (60Kms) – Priority-IV.
6. River Thamirabarani-Pappankulam to Arumuganeri Stretch – (80Kms) – Priority-V.

The water quality of the polluted river stretches indicated that the main cause of pollution is due to discharge of untreated domestic sewage / sullage and dumping of Municipal Solid Wastes from the urban local bodies. Based on the CPCB reports, the Hon'ble National Green Tribunal (NGT) Principal Bench took suo-moto

cognizance and issued the following directions by its orders dated 20.09.2018 & 19.12.2018 in O.A. No.673/2018.

“All the States and the Union Territories to prepare action plans for bringing all the polluted river stretches to be fit at least for bathing purpose.”

Accordingly, TNPCB has prepared and submitted the action plans with time lines for all the six stretches in coordination with the various departments and the approved action plans are under implementation to prevent the discharge of sewage and Solid Waste Management and for the Restoration and Rejuvenation of rivers with the coordination of various Government Departments. The water quality of the polluted river stretches is monitored under NWMP programme and the monitored data is uploaded in the TNPCB web site as well as in the CPCB portal.

6.2.7 Water Quality Watch Centre

The TNPCB has established a Water Quality Watch Centre (WAWC) at the Head 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. The 17 category of highly polluting industries, Red-Large industries and Common Effluent Treatment Plants are connected to this centre. As on March 31st 2021, 325 units are connected to this centre, of which 202 units for ZLD [170 IETPs & 32 CETPs] and 123 units for treated effluent discharge monitoring. The online monitors in the river Thamirabarani, Bhavani and Cauvery are connected to this centre. The parameters monitored through this centre include pH, TDS, DO and Flow. District wise number of industries connected to WQWC is given in table below.

S. No.	District Name	Total Industries Connected	Discharge IETP	CETP	ZLDS IETP	ZLDS CETP
1	Ariyalur	7	7	0	0	0
2	Chengalpet	0	0	0	0	0
3	Chennai	3	0	2	1	0
4	Coimbatore	5	1	0	4	0
5	Cuddalore	25	17	0	7	0
6	Dharmapuri	2	2	0	0	0
7	Dindigul	4	1	0	2	1
8	Erode	56	5	0	47	2
9	Kallakurichi	0	0	0	0	0
10	Kancheepuram	17	6	0	11	0
11	Karur	4	2	0	2	0

12	Krishnagiri	7	0	0	7	0
13	Madurai	2	1	0	1	0
14	Mayiladuthurai	0	0	0	0	0
15	Nagapattinam	5	5	0	0	0
16	Kanyakumari	0	0	0	0	0
17	Namakkal	5	2	0	3	0
18	Perambalur	4	3	0	1	0
19	Pudukottai	2	2	0	0	0
20	Ramanathapuram	3	3	0	0	0
21	Ranipet	0	0	0	0	0
22	Salem	10	5	0	5	0
23	Sivagangai	3	2	0	1	0
24	Tenkasi	0	0	0	0	0
25	Thanjavur	6	5	0	1	0
26	Theni	3	1	0	2	0
27	Thiruvallur	29	15	0	14	0
28	Thiruvarur	0	0	0	0	0
29	Tuticorin	9	8	0	1	0
30	Trichirappalli	7	3	0	3	1
31	Thirunelveli	6	2	0	3	0
32	Tirupathur	0	0	0	0	0
33	Tiruppur	52	4	0	30	18
34	Tiruvannamalai	2	2	0	0	0
35	The Nilgiris	3	2	0	1	0
36	Vellore	28	4	0	16	8
37	Viluppuram	10	8	0	2	0
38	Virudhunagar	4	3	0	0	0
Total		323	121	2	165	30

6.3 NATIONAL AMBIENT NOISE MONITORING NETWORK PROGRAMME

Noise is generated from a variety of indoor and outdoor sources such as industries, transport vehicles, construction activities, generator sets and fire crackers. The Noise Pollution (Regulation and Control) Rules, 2000 were notified by MoEF&CC under the Environment (Protection) Act 1986 and amended in January 2010. Database on noise level is required for policy formulation, setting standards and ensuring compliance of the existing rules.

The TNPCB in association with the CPCB has established 10 Real Time Ambient Noise Monitoring Stations in Chennai City under National Ambient Noise Monitoring Network Programme. The stations are at Egmore, T.Nagar, Perambur, Guindy, Triplicane, Pallikaranai, Velachery, Washermanpet, Anna Nagar and Sowcarpet. The monitoring data reveals that the ambient noise level in Chennai city

is exceeding the prescribed standards which mainly due to vehicular movement and construction activities. The annual average noise level for the year 2020 is given in Annexure – 17.

6.4 VEHICLE EMISSION MONITORING

In Tamil Nadu, Pollution Under Control (PUC) Certificate is issued for all kind of vehicles by the private emissions testing centers authorized by Transport Department under rule 116(B) of Tamil Nadu Motor Vehicles Rules 1989. The TNPCB conducts training programme for operation of emission checking instruments for the persons to be engaged in emission checking centers. The Board also issue working performance certificate for the new emission monitoring instruments to be used in the private emission testing centers. During the year 2020-2021, the Board has given training to 242 persons for operation of emission checking instrument and certified 242 new instruments.

CHAPTER - 7

LEGAL ACTIONS

7.1 INTRODUCTION

The Board is empowered to issue closure direction and stoppage of Power supply against defaulting/erring units under Section 33A of the Water (P&CP) Act, 1974 as amended and under section 31 A of the Air (P&CP) Act, 1981 as amended. The industries those aggrieved of Board's closure direction/any directions under the Water & the Air Acts are filing Writ Petitions/Appeal before the Hon'ble High Court and Appellate Authority/NGT (SZ)/PB respectively. The Board also files cases/appeals under the Water & Air Acts and E(P) Act. All the Pollution/Environmental related cases filed/being filed against the TNPCB by the NGO/Public/individual/defaulting industries/Aggrieved person before the Supreme Court of India/Hon'ble High Court/National Green Tribunal (PB) and Southern Zone/Appellate Authority/District Munsiff Court/Judicial Magistrate Court are dealt by the Law Section of the Board.

7.2 GREEN BENCH

The Hon'ble High Court has constituted a 'Green Bench' during the year 1996 as per the direction of Hon'ble Supreme Court of India dated 28.8.1996 in W.P.(c) No.914/1991 to deal the environmental pollution related cases.

7.3 APPELLATE AUTHORITY

As per the powers conferred under Section 28 of the Water (P&CP) Act, 1974 and the Air (P&CP) Act, 1981, the Government in Environment and Forests Department has constituted the Appellate Authority under the chairmanship of a Hon'ble Justice (Retd), High Court of Madras with two technical members. The Authority entertains and disposes off the appeals preferred by the industries against the order of the TNPCB issued under Section 25/26 and 27 of the Water (Prevention and Control of Pollution) Act, 1974, as amended in 1988 and any orders issued under the Air (Prevention and Control of Pollution) Act,1981 as amended in 1987.

7.4 NATIONAL GREEN TRIBUNAL

The National Green Tribunal (NGT) was established at New Delhi on 18.10.2010, for effective and expeditious disposal of cases relating to environmental protection and forest conservation. Any person aggrieved by an order or decision of the SPCB and /Appellate Authority order issued under Section 28, 29 and 33A of the Water (Prevention and Control of Pollution) Act, 1974, 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. NGT for southern zone was constituted and functioning at Chennai.

The cases filed, disposed & pending in the Hon'ble Supreme Court, High Court, National Green Tribunal and Appellate Authority during the financial year 2021-2022 are as follows:

S. No.	Name of the Court	No. of cases pending as on 31.03.2020	No. of cases filed from 01.04.2020 to 31.03.2021	No. of cases disposed (including cases filed in previous years)	Total No. of pending as on 31.03.2021
1	Supreme Court of India	24	5	2	27
2	High Court of Madras & Madurai Bench	181	75	59	197
3	National Green Tribunal (PB)	8	7	4	11
4	National Green Tribunal (SZ)	267	129	189	207
5	Appellate Authority	51	71	49	73
	Total	531	287	303	515

7.5 ENVIRONMENTAL IMPACT ASSESSMENT (EIA) VIOLATION CASES

As per the directions of the Government, the TNPCB has filed 51 Cases against the project proponents in the Juridical Magistrate Court for the violations of EIA Notification (i.e. commencing the project without getting prior environmental clearance) under the provisions of Section 19 of the Environment (Protection) Act, 1986.

7.6 IMPORTANT COURT CASES IN THE HON'BLE NGT (SZ), NGT (PB), HON'BLE HIGH COURT AND HON'BLE SUPREME COURT OF INDIA.

i). M/s. Vedanta Limited, Thoothukudi

The TNPCB vide proc. dated 23.05.2018 has issued direction for closure and disconnection of power supply to the unit. The Government vide G.O. (Ms) No.72 Environment and Forests Department dated 28.05.2018 issued orders for permanent closure. Based on that the unit's premises was sealed. The unit filed an appeal vide appeal No.87/2018 before Hon'ble NGT (PB), New Delhi against the above said orders and the Hon'ble NGT in its order dated 15.12.2018 directed the TNPCB to pass fresh order of renewal of consent and authorization to handle hazardous wastes. Against this Hon'ble NGT order, Govt of Tamil Nadu, and the TNPCB have filed a civil appeal 23/2019 before the Hon'ble Supreme Court. The Hon'ble Supreme Court vide its order dated 18.02.2019 have set aside the order of the Hon'ble NGT on the ground of maintainability and directed the unit to approach Hon'ble High Court of Madras. Accordingly, the unit had filed ten Writ petitions including W.P. No. 5764/2019 etc., before Hon'ble High Court of Madras. The Hon'ble High Court in its judgment dated 18.8.2020 stated *inter alia* that “*All the Writ Appeals filed by the unit of M/s. Vedanta Ltd against the refusal of consent, closure directions issued by the TNPC Board and the Tamilnadu Government order on the Permanent closure are dismissed*”. *The industry will remain closed.*

Subsequently, the unit has filed SLP vide Nos.10159 to 10168/2020 before Hon'ble Supreme Court challenging the order of Hon'ble High Court dated 18.08.2020. The unit also filed interim application No. 55831 in the above SLPs before the Hon'ble Supreme Court to undertake essential care and maintenance and to allow the operation of oxygen plants to supply free of cost oxygen for meeting the demands of the COVID-19 crisis. By taking consideration of the Oxygen requirement during COVID-19 pandemic, Hon'ble Supreme Court in its order dated 27.04.2021 allowed to permit the operation of the oxygen plant until 31st July 2021.

Based on this order, Government of Tamil Nadu issued G.O. (Ms) No. 32 Environment and Forests Department dated 29.04.2021 accord permission to operate the oxygen plants in the premises of M/s. Vedanta Limited, Copper Division, and directed the TNPCB to accord necessary permissions and also constituted Monitoring Committee for supervising the entire functions of the oxygen plants.

Based on that the TNPCB issued direction under Water and Air Acts on 30.04.2021 to operate the oxygen plant and to give power supply until 31st July 2021. The unit commences its operation of Oxygen plant - I on 13.05.2021 and supplying liquid oxygen to nearby hospitals and also started filling of oxygen in gaseous form in cylinders on 04.06.2021 and supplying to nearby hospitals. The case is pending before the Hon'ble Supreme Court.

ii). Stone Crusher Case: W.P No. 26786 of 2019

A writ petition No. 26786 of 2019 was filed before the Hon'ble High Court of Madras by Thiru E.Sampath with a prayer to quash the B.P.No. 21 dated 31.07.2019 relaxing 1 KM distance criteria for the existing and new stone crushers in the state of Tamil Nadu. The Hon'ble Court in its order dated 06.09.2019 have granted stay order to the said B.P. and directed TNPCB to appoint experts with expertise in environmental studies to consider the criteria that should be evolved for granting future permission for stone-crushing units, including the minimum distance to be maintained between two units, the distance from places of dense habitation and the like.

Based on that, with the approval of the Government vide G.O. (D) No. 115 Environment, Climate Change and Forest Department dated 30.07.2021, the Board has issued work vide proceeding dated 11.08.2021 to National Environmental Engineering Research Institute (NEERI), Chennai for conducting the study titled 'Assessment of Dust Emissions from Stone Crushing Industries and Distance criteria in the State of Tamil Nadu.

iii). India Based Neutrino Observatory (INO) Project

Thiru G. Sundararajan filed an application No.60/2018 before Hon'ble NGT (PB) against the environmental clearance dated 26.03.2018 issued by MoEF to the India Based Neutrino Observatory (INO) Project. He prayed that the project to be appraised at inter-state level i.e. Tamilnadu and Kerala, to be located at ecologically sensitive Western Ghats and at a distance of 4.9 Km from Mathikettan Shola National park in Kerala. The Hon'ble NGT (PB) in its order dated 02.11.2018 has directed that "the project will not be implemented until and unless the approval of National Board for the Wildlife is received

since the project site is within the Eco sensitive Zone of the National Park in Kerala” and disposed the appeal.

Against the above orders of the Hon’ble NGT, Thiru G. Sundararajan has filed a case (Case No.2025/2019) before Hon’ble Supreme Court. The case is pending before the Hon’ble Supreme Court. Till now, the unit has not resubmitted its application to the TNPCB for the issue of Consent to Establish and there is no construction activity in the site and the site was found to be vacant.

iv). Solid Waste Management - O.A.No. 606 of 2018

The Hon’ble NGT (PB) has taken a suo moto case O.A. No.606 of 2018, on compliance of Solid Waste Management Rules, 2016. In the order dated 16.01.2020, the Hon’ble NGT ordered for constitution of State Monitoring Committee for each State, formation of Special Task Force in each district, submission of compliance status as quarterly reports. In the order dated 02.07.2020, the Hon’ble NGT ordered for levying Interim Environmental Compensation against local bodies for non-compliance of SWM Rules, 2016 and for not commencing legacy waste remediation as on 01.04.2020.

State Monitoring Committee (SMC) in Tamil Nadu has been constituted under the Chairmanship of Dr. P. Jyothimani, Former Judge, Madras High Court and Former Judicial Member, National Green Tribunal. In compliance of Hon’ble NGT order dated 16.01.2019, the Chief Secretary, Govt. of Tamil Nadu had represented before the Hon’ble NGT, New Delhi on 23.04.2019 and presented the status of solid waste management, plastic waste management and biomedical waste management and other related environmental issues for the state of Tamilnadu. Subsequently, quarterly report on the compliance status is being submitted by the Government of Tamil Nadu to the Hon’ble NGT starting from October 2019. The TNPCB has issued directions under Section 5 of E(P) Act, 1986 to the 13 Corporations, 2 Municipalities and 3 Town Panchayats to remit environmental compensation for improper solid waste management for non-compliance of SWM Rules, 2016 and for not commencing legacy waste remediation as on 01.04.2020.

v). Korattur lake pollution - O.A No. 268 of 2016

Korattur People Welfare and Awareness Trust have filed O.A. No. 268 of 2016 in Hon'ble NGT (SZ) with a prayer to restrain untreated effluent from industries directly letting into the Korattur Lake through the canals or in any manner. The Hon'ble NGT in its order dated 12.12.2019 constituted a Joint Committee to consider the question involved in the matter and prepare an action plan to find a permanent solution for the issue and execution of the same with shorter time line. The Hon'ble NGT also directed to assess environment compensation and recover the same under "*polluters pay*" principle from those industries who are responsible for environmental damage. Based on the NGT directions, the TNPCB issued closure order to 26 industrial units in the Ambattur industrial estate. Environmental compensation was also levied to the polluting industries. The Board issued directions to all the industries and the common facility operators in the Industrial estate for proper collection, treatment and disposal of sewage, trade effluent and hazardous waste through the common facilities. The joint committee has submitted the report to the Hon'ble NGT. Action is being taken for the implementation of the action plan through the respective line Departments (i.e) PWD, GCC, CMWSSB and Avadi Corporation.

vi). Restoration of river Cooum, Adyar B Canal - O.A.No. 164 of 2015

Thiru P. Edwin Wilson & Ors have filed O.A. No. 164 of 2014 & 3 batch cases before the Hon'ble NGT (SZ) (Latter O.A.No. 556 to 559 of 2018 in NGT (PB) with a prayer for restoration of water bodies viz., Cooum, Adyar River and Buckingham Canal. The Hon'ble NGT (PB) in its order dated 13.02.2019 constituted Joint Committee to access the causes and quantum of damage to the Environment as well as further steps required for restoration of Environment. TNPCB is the nodal agency for the Joint Committee. Chennai River Restoration Trust (CRRT) is an organization co-ordinating with various agencies with the objective of rehabilitation of Chennai water ways and water bodies. The Hon'ble NGT, (PB) in its Order dated 13.02.2019, also directed that the Committee headed by the Chief Secretary of Tamil Nadu to meet on a monthly basis to review the progress on the ongoing restoration activities. In compliance with the above orders, the progress on restoration of the said water bodies is periodically monitored at the Government level. TNPCB has released Rs

20.0 crores to CMWSSB for plugging of sewage out falls in Adyar, Buckingham Canal and Cooum river basin in Chennai city.

7.7 ACTION AGAINST DEFAULTING UNITS

The Board monitors the industries on compliance of environmental standards. If violation is noticed, show cause notices are issued. Once the units rectify the defects, further action is dropped. If violation continues, the units will be called for personal hearing and time for rectification. In case the units continue to violate and pollute the environment, the Board issues closure order and disconnection of power supply under the provisions of the Water (P&CP) Act, 1974, the Air (P&CP) Act, 1981 and the Environment (Protection) Act, 1986. Once the unit rectifies the defects, the closure order is revoked and power supply is restored.

S. No.	Action	Upto 31.03.2020*	During the year 2020-21	Total as on 31.03.2021
1	No. of units for which show cause notice issued	1,07,683	6,128	1,13,811
2	No. of units for which closure order and disconnection of power supply order issued	13,151	179	13,330
3	No. of units for which orders for revocation of closure and restoration of power supply	6,358	233	6,591

* Data from 1999-2000 onwards

7.7.1 Demolition of Unauthorized Units

During the period 2020-21, the District Coordination Committee as constituted in G.O. (Ms) No. 23, Environment and Forests (EC.1) Department, dated: 01.03.2018 has demolished 30 unauthorized units. These are all unauthorized textile bleaching and dyeing units in Pallipalayam and Kumarapalayam areas located along the bank of Cauvery River.

7.7.2 Levy of Environmental Compensation

Environmental Compensation is a policy instrument for the protection of the environment which works on the '*Polluter Pay Principal*'. As per the orders of the Hon'ble NGT (PB) in the matter of O.A No. 593/2017 [WP (Civil) No. 375/2012], the

CPCB evolved methodology for assessing environmental compensation for the following cases:- (a) Discharges in violation of consent conditions, mainly prescribed standards / consent limits, (b) Not complying with the directions issued, such as direction for closure due to non-installation of OCEMS, non-adherence to the action plans submitted, failure of preventing the pollutants being discharged in water bodies and failure to implement waste management rules etc., (c) Intentional avoidance of data submission or data manipulation by tampering the Online Continuous Emission / Effluent Monitoring systems, (d) Accidental discharges lasting for short durations resulting into damage to the environment, (e) Intentional discharges to the environment-land, water and air resulting into acute injury or damage to the environment, (f) Injection of treated / partially treated / untreated effluents to ground water. The Government vide G.O. (Ms) No. 77, Environment and Forests Department, dated 28.10.2020 accepted the proposal of the TNPCB for levying environmental compensation against the Health Care Facilities and Common Biomedical Waste Treatment Facilities for non-compliance of the Bio-medical Waste Management Rules based on the methodology and formula given by the CPCB.

Accordingly, the TNPCB levies environmental compensation to the industries and healthcare establishments. During the period 01.04.2020 to 31.03.2021, Rs.22, 13, 98,038 /- (Rupees Twenty Two Crores Thirteen Lakhs Ninety Eight Thousand and Thirty Eight only) have been collected as environmental compensation from 166 industries.

CHAPTER - 8

ENVIRONMENTAL TRAINING INSTITUTE

8.1 ENVIRONMENTAL TRAINING INSTITUTE

The Board established the Environmental Training Institute (ETI) during 1994 with Danish Assistance to impart knowledge and provide trainings to staff of TNPCB, industrial representatives, executives of Municipalities and Corporations, line agencies and NGOs on pollution control and environmental protection. The ETI is functioning in 3rd Floor of the TNPCB Head Office. During the year 2020-21, the ETI has conducted sixteen class room & Field visit programmes on its own. It also organized seven online programmes through reputed institutions. Totally 327 officials have participated in the programme.

i) Training Programme conducted by ETI

S. No.	Training Programme	Date of Training	Programme attended by	No. of officers attended
1	Training programme on operating vehicular emission testing instrument	29.09.2020	Vehicular Emission Testing Centre Personnel	28
2	Training programme on operating vehicular emission testing instrument	01.10.2020	Vehicular Emission Testing Centre Personnel	41
3	Training programme on operating vehicular emission testing instrument	27.10.2020	Vehicular Emission Testing Centre Personnel	16
4	Training programme on operating vehicular emission testing instrument	28.10.2020	Vehicular Emission Testing Centre Personnel	18
5	Training programme on operating vehicular emission testing instrument	29.10.2020	Vehicular Emission Testing Centre Personnel	34
6	Training about TNPCB and its activities	18.11.2020	Section Officers of Secretariat	10
7	Training about TNPCB and its activities	16.12.2020	Health Officers	2
8	Training about TNPCB and its activities	21.12.2020	Section Officers of Secretariat	10
9	Training programme on operating vehicular emission testing instrument	29.01.2021	Vehicular Emission Testing Centre Personnel	48
10	Training programme on operating vehicular emission testing instrument	30.01.2021	Vehicular Emission Testing Centre Personnel	22
11	Hazardous and other Wastes (Management & Trans boundary Movement) Rules, 2016	20.02.2021	Engineers of Trichy and Madurai Zone	23
12	Advanced Oxidation Treatment Technology	24.02.2021 to 26.02.2021	DEE, TNPCB, Karur	1

13	Training about TNPCB and its activities	10.03.2021 to 15.03.2021	Probationary Deputy Collectors	8
14	Training about TNPCB and its activities	18.03.2021 to 23.03.2021	Probationary Deputy Collectors	10
15	Training programme on operating vehicular emission testing instrument	19.03.2021	Vehicular Emission Testing Centre Personnel	35
16	Training about TNPCB and its activities	26.03.2021 to 31.03.2021	Probationary Deputy Collectors	11
Total				317

ii). Online Programme organized through reputed Institutions

S. No.	Training Programme	Conducted by	Date of Training	No. of Officers attended
1	Online IRS Training and Table Top Exercise (TTEEx)	Government of India National Disaster Management Authority, New Delhi	19.01.2021	1
2	Detailed Insight into Management of various Wastes Like Hazardous Waste, E-Waste, Construction & Demolition Waste, Municipal Solid Waste and Biomedical Waste	Engineering Staff College of India, Hyderabad	27.01.2021 to 29.01.2021	1
3	Hazardous and Plastic Waste Inventory for SPCBs/PCCs officials	CPCB, Delhi	28.01.2021 to 30.01.2021	3
4	Environmental Monitoring - Sample collection of Effluent, AAQM, Stack and Testing of Various Environmental Parameters like Air, Water and Noise in Laboratory	National Productivity Council, Training Institute, Chennai	17.02.2021 to 19.02.2021	1
5	Environmental Performance based rating of Railway Stations	CPCB, Delhi	19.02.2021	2
6	Climate Modeling and Vulnerability Assessment	Ministry of Environment, Forests and Climate Change, New Delhi	23.02.2021 to 26.02.2021	1
7	Control of Air Pollution, Source Apportionment Studies and Preparation of Emission Inventory and Urban Air Quality Management	The Energy and Resources Institute, New Delhi	17.03.2021 to 19.03.2021	1
Total				10

8.2 COLLABORATION WITH INSTITUTIONS

8.2.1 Centre for Urbanization, Buildings and Environment (CUBE)

The Government of Tamil Nadu issued orders vide G.O. Ms. No.79, Finance (Infrastructure) Department dated 30.3.2017, for establishment of Centre for Urbanization, Buildings and Environment (CUBE) at Indian Institute of Technology Madras, Chennai under Public Private Partnership (PPP) mode with funding support from the implementing agencies. The CUBE will be a Centre of Excellence and

would impart the leading edge skills required for the sector concerned to grow and remain competitive. In addition to imparting specialized skills, the CoEs would focus on Research and Development (R&D), faculty development initiatives for other institutions in the State and Curriculum network with other CoEs to carry out work in interdisciplinary area. The TNPCB is one of the implementing agencies and funded an amount of Rs.3.00 Crores to the Centre. The CUBE has been established and started functioning at IIT Madras Research Park, Chennai. TNPCB is one of the Governing Body members. The Board interacts with the Centre on technical matters.

CHAPTER - 9

ENVIRONMENTAL AWARENESS AND PUBLIC PARTICIPATION

9.1 ENVIRONMENTAL AWARENESS

Environmental awareness is to understand the fragility of environment and the importance of its protection. Promoting environmental awareness is an easy way to become an environmental steward and participate in creating a brighter future for coming generations. Environmental campaign has become an important tool to achieve effective compliance of various pollution control norms. Large scale public involvement can strengthen environment movements for the sake of implementation of environment-friendly rules and regulations by the government machinery in much better way to have the most desired results. The Board conducts various types of environmental awareness programmes every year on the following occasions. During the year 2020-21, the following programmes were conducted.

9.2 VINAYAGAR CHATHURTHI

Awareness programmes are conducted through the District Collectors in all the district headquarters and towns to the public for not to use Plaster of Paris and paints to make the Vinayagar idols. They are encouraged to use clay for making idols as a tradition. The public are addressed to remove the worship materials like flowers, clothes, decorating materials etc., before immersion of idols. Bio-degradable materials should be collected separately for recycling or composting. Non-biodegradable materials should be collected separately for dispose in sanitary landfills. The idols shall be immersed in designated water bodies identified by the District Administration. The Board monitors water quality of the said water bodies before and after immersion of idols. Idols were not immersed during the 2020-2021 Vinayagar Chaturthi due to COVID-19 pandemic, hence no water samples were collected from the designated water bodies.

9.3 DEEPAVALI

Every year the Board conducts public awareness programme during Deepavali festival for celebrating noise and smoke pollution free Deepavali. The Hon'ble Supreme Court of India in its Judgment dated 23.10.2018 in W.P (C) No.

728/2015 have issued directions inter alia that the crackers with reduced emission (improved crackers) and green crackers only would be permitted to be manufactured and sold, extensive public awareness campaigns shall be taken up by the Central Government / State Government / Schools / Colleges informing the public about the harmful effects of firecrackers. The Hon'ble Court has also restricted the timing for two hours for bursting of fireworks. Accordingly, the Government of Tamilnadu has permitted the public for bursting of crackers between 6.00 AM to 7.00 AM and 7.00 PM to 8.00 PM on the Deepavali day. The Hon'ble Supreme Court has also directed the SPCBs to carry out short-term monitoring in their cities for 14 days (commencing from 7 days prior to Deepavali and ending 7 days after Deepavali).

As per the directions of the Hon'ble Supreme Court, the Board conducted awareness programme in association with Eco-clubs, National Green Corps, School Education, Higher Education and Police Departments and District Administration. In this regard, a total fund of Rs.12.00 lakhs (Rupees Twelve Lakhs only) was sanctioned to all the District Environmental Engineers for conducting awareness programme. Awareness through Hello FM Radio was also done for four days from 11.11.2020 to 14.11.2020 in nine cities (i.e.) Chennai, Trichy, Coimbatore, Madurai, Tirunelveli, Tuticorin, Vellore, Salem and Erode. The Board has also carried out AAQ survey in 13 cities from 07.11.2020 to 21.11.2020. **The results are given in Annexure-8.**

9.4 KARTHIGAI MAHADEEPAM

The Plastic Awareness campaign was conducted in Thiruvannamalai Town during the Karthigai Mahadeepam Festival held on 29th November 2020. In order to encourage the people to avoid the usage of plastic carry bags and to encourage the usage of alternatives like cloth bags, paper bags and jute bags, TNPCB conducted a programme by giving coupons to the people who bring cloth bags, jute bags and selected the winners by lucky draw and gave gold and silver coins. This has created huge awareness among the people. In this connection, a fund of Rs.3,40,000/- was sanctioned to DEE, Thiruvannamalai for conducting the awareness programme.

9.5 BHOGI FESTIVAL

The Board conducted awareness programmes during Bhogi Festival in January 2021, to sensitize the public about the ill effects of air pollution caused due to the burning of waste materials such as waste tyres, tubes, plastic materials, cloths etc. All the DEEs have conducted the programme in coordination with the District Administration. Awareness through Hello FM radio was also done for two days from 11.01.2021 to 12.01.2021 in nine cities (i.e.) Chennai, Trichy, Coimbatore, Madurai, Tirunelveli, Tuticorin, Erode, Salem and Vellore. On the day of Bhogi, night patrolling was carried out by the Board officials in the Chennai city so as to curb the burning of tyres, tubes and plastic materials. The Board also conducted ambient air quality survey on pre-bhogi and bhogi day at 15 places in Chennai city viz., Kathivakkam, Manali, Thillai Nagar (Kolathur), Tondiarpet, Royapuram, Thiru.Vi.Ka.Nagar, Ambattur, Anna Nagar, Besant Nagar, Thiyagaraya Nagar, Perungudi, Karambakkam, Meenambakkam, Kodambakkam and Sholinganallur. **The results are given in Annexure -18.**

CHAPTER - 10

VISIT TO THE BOARD BY EXPERTS AND IMPORTANT PERSONS

The Chairman, Central Pollution Control Board visited TNPCB on 19th October 2019, to know the functioning of Care Air Centre, Water Quality Watch Centre and the computerization of the Board activities. He also visited Pallavaram Tanners Industrial Effluent Treatment Company Ltd. (Tannery CETP) and bio-mining site at Pallikaranai pertaining to Greater Chennai Corporation.

CHAPTER - 11

OTHER IMPORTANT MATTERS DEALT BY TNPCB

11.1 STONE CRUSHERS IN TAMIL NADU

There are more than 3200 numbers of stone crusher units under operation in Tamil Nadu. They are predominantly located in Thirisoolam, Thiruneermalai, Erumaiyoor villages of Kancheepuram District, Morattupalayam, Kodangipalayam villages of Tiruppur District, and in Villupuram, Tiruvannamalai, Coimbatore, Perambalur, Krishnagiri, Karur, Madurai, Tirunelveli and Kanyakumari Districts. The stone crushers are categorized as orange category. All these units have provided air pollution control measures as per National Environmental Engineering Research Institute (NEERI) recommendations.

Earlier, in 2004 the Board vides B.P.Ms. No.4, dated 02.07.2004 had fixed the siting criteria. As per the siting criteria, no stone crushers units should be located within 500 meters from any National Highways or State Highways or inhabited site or places of public & religious importance. Also the minimum distance between new / proposed stone crushers should be 1 kilometers. To prevent dust pollution from these units, primary and secondary Crusher and conveyor belt should be closed with tin sheets. Telescopic chute and water sprinklers should be provided to the jelly conveyor to prevent dust pollution. The units should have compound wall or metal sheet enclosure of 20 feet height. Further trees should be grown densely for 10 meters width around the premises of the units.

River sand is the essential material for the construction activities. Extensive use of river sand as fine aggregate in the construction works results in scarcity of river sand. Further, indiscriminate mining of sand affects the river eco system and lowers the ground water table. Therefore, the Government is now encouraging the use of M-Sand in construction in place of river sand. In order to facilitate for M-Sand units and new stone crushers to meet the demand, based on the scientific study, the vide B.P. No.21, dated 31.07.2019 relaxed the 1 kilometer distance criteria from between two crushers subject to certain conditions.

Aggrieved on the orders of the Board, a writ petition (W.P. No.26786/2019) was filed in the Hon'ble High Court of Madras. The Hon'ble Court in its order dated 04.10.2019 has granted an interim stay for the above said relaxation. The stay order

is got extended from time to time. However, the units which have valid consent and which have been in operation before the interim stay order are allowed to operate. The Hon'ble High Court directed the TNPCB to carry out a scientific study to examine the distance criteria. Based on that, the Board has entrusted the study to NEERI, Chennai.

11.2 FOLLOW-UP ACTION ON NGT DIRECTIONS

i). Marriage Halls / Restaurants / Hotels / Motels / Banquets etc.

In the matter of Compliance of Environmental norms by Restaurants / Hotels / Motels / Banquets etc., the Hon'ble National Green Tribunal (Principal Bench) in the order dated 23.07.2020 in O.A. No.400/2017, directed that all the States to take further steps in the matter of adopting and enforcing the CPCB guidelines to ensure sustainable use of water, solid and liquid waste management and compliance with the statutory environmental norms under the Water Act, 1974, the Air Act, 1981, the Environment (Protection) Act, 1986 including the Noise Pollution (R&C) Rules, 2000, providing for adequate parking facilities and having adequate stack heights for the DG Sets by the Restaurants / Hotels / Motels / Banquets etc. in the State.

Based on that, the TNPCB issued a public notice on 7.9.2020 in Tamil & English news paper stating that all the Marriage Halls, Restaurants, Hotels, Motels, and Banquets etc in the State of Tamil Nadu shall comply with the '*Mechanisms / Guidelines for Control of Pollution and Enforcement of Environmental Norms at Individual Establishments and the Area / Cluster of Restaurants / Hotels / Motels / Banquets etc.*' issued by the CPCB. Accordingly the Marriage Halls, Restaurants / Hotels / Motels / Banquets etc in the State of Tamil Nadu shall get consent to establish / consent to operate under the Water (P&CP) Act, 1974 and the Air (P&CP) Act, 1981. Further the Board has also categorized Standalone restaurants using LPG and having wastewater generation less than 10 KLD as green category and Restaurants having rooms and wastewater generation more than 10 KLD as orange category.

ii). Dairy Farms and Gaushalas

In compliance to the Hon'ble National Green Tribunal (Principal Bench) orders dated 20.05.2020 in the matter of O.A. No.46/2018, the TNPCB has issued a public

notice on 13.09.2020 in Tamil and English news paper stating that all the Dairy Farms and Gaushalas in the State have to obtain Consent to Establish and Consent to Operated under the Water (P&CP) Act, 1974 as well as Air (P&CP) Act, 1981. They shall comply with the guidelines issued by the CPCB.

11.3 REMEDIATION OF CHROMIUM CONTAMINATED SITE AT TCCL, RANIPET

M/s Tamil Nadu Chromates and Chemicals Ltd. (TCCL) at Ranipet were operated between the years 1975-1995 and manufactured sodium bi-chromate, basic chromium sulphate and sodium sulphate using chromate ore. During its operation, about 2.2 Lakh Tonnes of chromium bearing hazardous process waste generated was dumped at the backyard of the premises on open land in an extent area of 2 hectares to a height of 3 to 5 meters. The leachate generation from the stockpile is causing threat for contamination of land and ground water in that area.

The Board has initiated a series of legal actions which includes the issue of closure order, directions under Section 5 of the Environment (Protection) Act, 1986, filling of cases in the Hon'ble High Court and follow up with Registrar of Companies etc. However, no progress on remediation could be achieved as there was change in the company management and difficulties being encountered in tracing & recovery of funds for implementation.

In order to remediate the contaminated site, the CPCB has awarded the contract to M/s. ERM India Pvt. Ltd, Bangalore for the preparation of Detailed Project Report (DPR) and providing consultancy for remediation. Accordingly, M/s.ERM India Pvt. Ltd has conducted detailed study and submitted DPR. Further action on remediation at site as per the DPR is being undertaken in coordination with CPCB & Government of Tamil Nadu.

11.4 REMEDIATION OF MERCURY CONTAMINATED SITE AT HUL, KODAIKANAL

M/s Hindustan Unilever Limited (HUL) at Kodaikanal (earlier in the name of M/s Ponds India Limited) was operated between the years 1984-2001 and manufactured clinical glass mercury thermometer. As complaints were received regarding improper disposal of mercury contaminated glass scrap to a scrap dealer, the unit was closed in the year 2001. Then, the mercury contaminated waste accumulated within the premises was exported to the recycler M/s. Bethlehem

Apparatus Company at Pennsylvania, in the USA during the year 2003 for recycling. Later, In May 2006, the machineries used in the process were decontaminated scientifically.

The Board permitted to the unit in the month of December 2016 to carry out the soil remediation work on trial run basis with the Site Specific Target Level (SSTL) of mercury in soil as 20 mg/kg. Based on the trial run results, Consent to Operate (CTO) was granted in March, 2020 for carrying out full scale mercury contaminated soil remediation work. Now, the remediation work is under progress.

11.5 REMEDIATION OF OIL CONTAMINATED SITE AT TONDIARPET, CHENNAI

An incident of oil leakage was occurred in the year 2013 in the underground pipeline of Bharat Petroleum Corporation Limited (BPCL) at Tondiarpet while conveying petroleum products between Chennai Port and BPCL Tondiarpet storage terminal, Chennai district. BPCL disconnected the pipeline immediately and made inactive and engaged IIT Madras for carrying out field investigation and characterization of contamination. Further, contaminated ground water of 207.395 KL and floating oil of 7.287 KL at affected site were removed from 18 bore wells.

A case was filed by Thiru. V.P. Krishnamoorthy, Old Washermenpet, Chennai in this regard in the Hon'ble National Green Tribunal (NGT), South Bench, vide O.A No. 176 of 2013. BPCL initiated remediation works as per the directions of NGT (SZ) & Central Pollution Control Board (CPCB) by engaging M/s Stratus Environmental, Inc USA. As a part of remediation work, Eight Air Sparging Wells (AS) & Eight Soil Vapor Extraction wells (SVE) are installed and interconnected and soil vapour extraction process started from May, 2016. Approximately 16,945.99 Kilograms of petroleum hydrocarbon vapor extracted beneath the subsurface soil through SVE.

TNPCB and CPCB are periodically monitoring the remediation work being carried out at oil contaminated site, Tondiarpet and submitting status report to Tribunal. As per the Tribunal direction dated 18.09.2019, ICMR shall conduct health study in the affected area at the cost of BPCL. In this regard, ICMR has furnished DPR along with cost estimate with time line of 10 months for the conducting health study in the affected area of Tondiarpet. Accordingly, BPCL has released 90% of the cost of health study (Rs.92,81,055.50) and ICMR is preparing to undertake health study in the affected area of Tondiarpet. Apart from remediation work, BPCL is

supplying drinking water to the residents in the ground water affected area of Tondiarpet due to oil leakage from the day of the incident.

11.6 POLLUTED INDUSTRIAL CLUSTERS

The MoEF&CC, GoI have identified polluted industrial clusters in Country based on the comprehensive environmental pollution index (CEPI) score arrived by the CPCB. Accordingly in Tamil Nadu, Vellore (Ranipet), Cuddalore, Manali, and Coimbatore have been classified as critically polluted area, where CEPI score is more than 70 and Tiruppur, Mettur, Erode, and Tuticorin are classified as severely polluted areas, where CEPI score is 60-70. The Hon'ble National Green Tribunal (PB) in its order dated 14.11.2019 in O.A.No.1038/2018 directed all the SPCBs to conduct environmental quality monitoring in polluted industrial areas and submit time bound action plans for improvement of environmental quality to the CPCB. Accordingly, the TNPCB carried out study and submitted action plan to the CPCB. The action plan is under implementation.

11.7 PROTECTION OF CAUVERY DELTA REGION

In order to protect the interest of the farmers of the Cauvery delta region, the Government of Tamil Nadu under Act No.11/2020 has declared the Cauvery delta region as Protected Special Agricultural Zone. Further Government of Tamil Nadu vide G.O.M.S.No.21, Environment and Forests (EC.3) Department dated 24.02.2020 have prohibited certain new industrial projects or new activities as below in the protected agricultural zones.

Accordingly, Thanjavur District, Tiruvarur District, Nagapattinam District, Kattumannarkoil, Melbhuvanagiri, Keerapalayam, Parangipettai and Kumaratchi blocks of Cuddalore District and Aranthangi, Avudaiyarkoil, Manamelkudi, Tiruvarangulam and Karambakudi blocks of Pudukkottai District were announced as protected agricultural zones. The new projects or expansion of the projects such as zinc smelter, iron ore process plant, integrated steel plant and sponge iron plant, Copper smelter, aluminium smelter, bone meal, processing of animal horn, hoofs and other body parts, tannery, exploration, drilling and extraction of oil and natural gas including coal-bed methane, shale gas and other similar hydrocarbons and ship breaking industries are prohibited in the above protected agricultural zone areas.

Government of Tamil Nadu vides G.O. (Ms).No.195, dated 09.08.2021 has reconstituted the High Level Expert Technical Committee (HLETC) to take up the study on exploration and extraction of hydrocarbon projects in the areas other than the protected agricultural zones.

11.8 STATUS OF ANNOUNCEMENTS MADE IN THE ASSEMBLY

Status of the Announcements made by the Hon'ble Chief Minister of Tamil Nadu under Rule 110 and by the Hon'ble Minister for Environment on the floor of Legislative Assembly during the budget demand for the year 2020-2021 is as follows.

i). Announcement made by the Hon'ble Chief Minister

S. No.	Announcement	Present Status
1	Eco restoration of Vannankuttai Eri and Senguttai Eri in Gobichettipalayam union, Erode District.	The Government have issued orders vide G.O. No.115 Environment and Forests Department, dated 03.09.2020. Based on that TNPCB has released Rs.5.84 crores to the Director of Environment / Member Secretary, EMAT. As reported by the DoE, the work is under progress
2	Eco restoration of Suryakulam Tank in Arni Municipality, Thiruvannamalai District	The Government have issued orders vide G.O. No.116 Environment and Forests Department, dated 03.09.2020. Based on that TNPCB has released Rs. 3.23 crores to the Director of Environment / Member Secretary, EMAT. As reported by the DoE, the work is under progress.
3	Construction of own buildings for the O/o. DEE, TNPCB at Ramanathapuram, Kumarapalayam and Nagercoil.	TNPCB has given administrative approval vide B.P. No.20 dated 31.03.2020. Ramanathapuram: Housing Board Land is identified. Proposal is sent to TNHB Head Office for allotment of land. Kumarapalayam: Land is identified. Proposal is sent to the District Collector, Namakkal for awarding enter upon permission. Nagarcoil: Land is purchased. The PWD is addressed to prepare Cost Estimate.

ii). Announcement made by the Hon'ble Minister for Environment

S. No.	Announcement	Present Status
1	Green Award to O/o DEE office and DEL/AEL, TNPCB	Board Proceeding (B.P) No.60 dated 09.12.2020 is issued for presentation of Green Awards every year from 2020-2021 onwards in the form of shield to one District Environmental Engineer's office and one Advance Environmental Laboratory/District Environmental Laboratory who excels in field works.

2	Formation of Flying Squad at Vellore for close monitoring of Palar river stretch.	B.P. No. 61 dated 09.12.2020 is issued for the formation of a Flying Squad headed by an Environmental Engineer having Vellore as head quarters for the purpose of monitoring the Palar river stretch in the Tannery belt of Tirupattur, Vellore and Ranipet Districts. Proposal is sent to Government for issuing necessary G.O.
3	World Class Capacity Building programme to the Engineers and Scientists of TNPCB.	In view of the G.O.No.249 dated 21.05.2020 issued by the Finance (Budget) Department, wherein the Government has issued instructions to control expenditure in Government Departments including Autonomous Boards in view of COVID-19 pandemic, the Board has decided to drop the proposal.
4	Green awards to the Urban Local Bodies.	B.P. No. 63 dated 11.12.2020 is issued for presenting Green Award to the Urban Local Bodies who excel in solid and liquid waste management from 2021 onwards.
5	Providing LCD projectors to 300 Government Higher Secondary Schools.	In view of the COVID-19 pandemic the schools are under closure. Hence, the Board has deferred the subject.
6	Establishment of one Mobile Continuous Ambient Air Monitoring Station at Salem.	B.P.No. 51 dated 26.08.2020 is issued with administrative approval for Establishment of one MCAAQMS at Salem. Tendering is under progress.

11.9 PUBLIC HEARING

As per the Environmental Impact Assessment Notification, 2006, certain categories of industrial projects require prior Environmental Clearance (EC) from the Ministry of Environment, Forests and Climate Change, Government of India or State Environmental Impact Assessment Authority (SEIAA) which depends on the size of the project. As per the notification, TNPCB conducts public hearing headed by the District Collector. After conducting public hearing, inviting opinions from the public, the details of the minutes are sent to the MoEF&CC, Government of India or SEIAA. During the period April 2020 to March 2021, public hearings were conducted for 77 projects.

List of projects for which public hearing conducted during 2020-21

S. No.	Name and address of the project	Details of Project	Date of public hearing
1	Department of Fisheries, Government of Tamilnadu, Proposed Construction of training walls for permanent stability of bar mouth at Pulicat village, Ponneri Taluk, Tiruvallur District.	Proposed Construction of training walls for permanent stability of bar mouth at Pulicat village, Ponneri Taluk, Tiruvallur District.	29.10.2020
2	M/s. S.J.Natural Minerals Multi-Colour Granite Quarry, SF.No.113/1A, 113/2A,113/2B, 113/3A, 113/3B, 113/4B, 113/5B, 121/1A, and 121/2A, Karisalpatti Village, Sattur Taluk, Virudhunagar District.	Fresh Quarrying proposal in over an extent of 7.56.5 Ha of patta Lands.	04.11.2020
3	M/s. Nalani Annamalayan Rough Stone and Gravel Quarry, SF.No.227/1, 227/2A, 227/3A & 228, Chinnakamanpatti Village, Sattur Taluk, Virudhunagar District.	Fresh Quarrying proposal in over an extent of 4.31.5 Ha of patta Lands.	10.11.2020
4	M/s. P. Karuppasamy Rough Stone and Gravel Quarry, SF.No.225/1, 269/1, 269/2, 270/1 & 270/2 Chinnakamanpatti Village, Sattur Taluk, Virudhunagar District.	Fresh Quarrying proposal in over an extent of 2.15.5 Ha of patta lands.	10.11.2020
5	M/s. Kodakkal Black Granite Quarry – By TAMIN Madhepalli Division, S.F.No. 1193/1 (Part-15) Kodakkal Village, Sholinghur Taluk, Ranipet District.	Proposed Black Granite Quarry in 6.00.0 Hectare	10.11.2020
6	M/s. The India Cements Ltd, SF.Nos.120/1, 120/2, 126/1, 126/2A, 126/2B, 126/2C, 126/2D, 126/2E, 126/3, 137/7, 138, 139, 151, 152/2, 152/3, 152/4, & 152/5, Mallegoundanpalayam village, Palladam Taluk, Tiruppur District.	Proposed Lime Kankar quarry over an extent of 19.84.5 Ha.	11.11.2020
7	M/s. D.Mohanraj Rough Stone and Gravel Quarry, , Survey No.760/1, 760/2, 762/1, 762/2A and 763 in Padmanabamangalam Village, Srivaikundam Taluk, Thoothukudi District.	Fresh Quarrying proposal in over an extent of 12.65.5 Ha of patta lands.	17.11.2020
8	M/s.M.Saranraj, SF.No.236/5, 236/7, 297/1A, 297/2A, 297/2B, 297/2C, 297/2D, 297/3, 298/2A1, 298/2A2, 298/2A3, 298/2B1, 298/2B2 and 298/2B3 at Keelaramanathi Village, Kamuthi Taluk, Ramanathapuram District.	Stone and gravel quarry over an extent of 5.61.0 Hectare with 731388 cubic meters of ordinary stone and 50309 cubic meters of gravel.	17.11.2020
9	M/s. Environ Biowaste Systems India Private Limited, S.No., 553/1B, 2A & 2B of Meyyur Village, Uthukottai Taluk, Tiruvallur District.	Proposed Common Bio-Medical Waste Treatment Facility (8.1 Ton/day).	20.11.2020

10	M/s. Ezhil Blue Metals Private Limited, at S.F.No.212/7, 240/1A, 240/1B, 240/2, 207/3C, 241/1, 243/1, 243/2 and 243/3, (Over on Extent of 8.390 Ha in patta lands), Meenakshipuram Village, Ettayapuram Taluk, Thoothukudi District.	Proposed Rough Stone and Gravel Quarry .	24.11.2020
11	M/s. Murali Enterprises, Pandapuli Existing Limestone Mine, SF.No.24/1F, 29/2B, 2F, 34/1 to 34/13, Pandapuli Village, Sankarankoil Taluk, Tenkasi District-627 753	Pandapuli Existing Limestone Mine	26.11.2020
12	M/s. Murali Enterprises, Pandapuli Existing Limestone Mine, SF.No.24/1C(P), 24/2(P), 30/2 to 30/8 & 34/15 Pandapuli Village, Sankarankoil Taluk, Tenkasi District-627 753.	Pandapuli Existing Limestone Mine	26.11.2020
13	M/s. ARS Steels & Alloy International Pvt Ltd, Plot No.B-1/S, 39-52, B1/S Part, SIPCOT Industrial Complex, Pappankuppam Village, Gummidipoondi Taluk, Tiruvallur District.	Proposed Expansion of Steel melting plant.	27.11.2020
14	M/s. Tamilnadu Cements Corporation Ltd, Kaallankuruchi Village, Ariyalur Taluk, Ariyalur District.	Expansion of Kallankuruchi Limestone Mines from 0.28 Million TPA to 1.34 Million TPA vide G.O Ms.No.456 dated:16.05.1985	10.12.2020
15	M/s. Tamilnadu Cements Corporation Ltd, Kaallankuruchi, Ammenabath and Kurumbanchavadi village, Ariyalur Taluk, Ariyalur District.	Existing lime stone mining lease area over an extent of 66.11.0 Hect.	11.12.2020
16	M/s. Wienerberger India Private Limited at S.F.No. 24/3B, etc in Periyakoil Village and 122/1, etc in Jaderi Village, Cheyyar Taluk, Tiruvannamalai District.	Fire Clay Mines	11.12.2020
17	M/s. Sri Andal Paper Mills Pvt Ltd - Power Plant(14.5MW) SF.No.533/1, 534/4, 541/1, Puthupeerkadavu Village, Sathyamangalam Taluk, Erode District.	M/s. Sri Andal Paper Mills Pvt Ltd - Power Plant(14.5MW)	15.12.2020
18	M/s. The Ramco Cement Ltd, Limekankar and Clay(others) Quarry, SF.No.109/1, etc, Maravarperungudi Village, Aruppukottai Taluk, Virudhunagar District.	Fresh mining proposal in over an extent of 23.29.0 Ha.	15.12.2020
19	M/s. S.Rajendran Rough Stone Jelly & Gravel Quarry, SF.No.191/1 (P), Kasthuriengapuram part II Village, Radhapuram Taluk, Tirunelveli District - 627 112	Fresh mining proposal in over an extent of 23.29.0 Ha.	15.12.2020
20	M/s. C. Sugu Rough Stone & Gravel Quarry, S.F.No. 192 (P), Kasthuriengapuram Part II Village, Thisayanvilai Taluk, Tirunelveli District - 627 112.	Rough Stone & Gravel Quarry	15.12.2020

21	(I) M/s.Black Granite Quarry of Thiru.O.Ulaganathan, SF.No.1023/3, Bargur B Village, Anthiyur Taluk, Erode District. (II) M/s. GTP Granites Ltd, SF.Nos.1015/1A, etc Bargur Village, Anthiyur Taluk, Erode District.	Extent of area 1.86.0 ha Extent of area 3.24.50 ha	19.12.2020
22	M/s. Shri Sai Sabari Enterprises, Multi-Colour Granite Quarry, SF.No864/2(P), 3(P), 4(P), 5, 6(P), 9(P), 10(P), 12, 13, Alambadi Village, Guziliamparai Taluk, Dindigul District.	Fresh quarrying proposal over an extent of 2.79.73 Ha of patta lands.	07.01.2021
23	M/s. Stonemark Engineering Pvt. Ltd., S.F.No. 50/1, 50/2 & 50/3 of Adavanapalli Village, Hosur Taluk, Krishnagiri District.	Proposed to carry out the Rough Stone Quarry lease over an extent of 1.40.5 Ha	07.01.2021
24	Proposed River Sand quarry over an extent of 20.00.0 Ha in S.F. No.782/1(part), Mathirivellur village, Sirkali Taluk, Nagapattinam District by The Executive Engineer PWD/WRD, Mining & Monitoring Division, Thanjavur.	River Sand quarry (Mathirivellur village)	07.01.2021
25	Proposed River Sand quarry over an extent of 20.00.0 Ha in S.F. No.321/1(part), Vadarangam village, Sirkali Taluk, Nagapattinam District by The Executive Engineer PWD/WRD, Mining & Monitoring Division, Thanjavur.	River Sand quarry (Vadarangam village)	07.01.2021
26	Proposed River Sand quarry over an extent of 12.00.0 Ha out of 109.44.0 Ha in S.F. No.495/1(part), Agaraelathur village, Sirkali Taluk, Nagapattinam District by The Executive Engineer PWD/WRD, Mining & Monitoring Division, Thanjavur.	River Sand quarry (Agaraelathur village)	07.01.2021
27	Proposed Rough Stone and Gravel Quarry owned by Mr. N.Gopinath in an extent of 3.35.0 Ha at S.F.No.33/5, 37/3, 37/4, 37/5, 37/6, & 37/7 of Nalmukkal Village, Marakkanam Taluk, Villupuram District.	Rough Stone and Gravel Quarry	12.01.2021
28	Proposed Construction of Fishing Harbour by Fisheries Department, Government of Tamil Nadu in Kazhuveli Waters in an extent of 6.69.50 Hectares at S.F.No.23/1 & 23/2 of Azhagankuppam Village, Marakkanam Taluk, Villupuram District for Fish Catching of 12000 Tonnes/Annum.	Construction of Fishing Harbour by Fisheries Department.	12.01.2021
29	M/s.Tamil Nadu Minerals Limited (TAMIN), Black Granite Quarry S.F.No.324/1, Samanur Village, Palacode Taluk, Dharmapuri District.	Black Granite Quarry (Mining).	22.01.2021

30	M/s.Tamil Nadu Minerals Limited (TAMIN), Black Granite Quarry, S.F.No.1 of Sudanur Village, Palacode Taluk, Dharmapuri District.	Black Granite Quarry (Mining).	22.01.2021
31	M/s. S.R.Sambangi Rough Stone quarry at SF.No.1151, 1155. 1212 to 1219, 1222, 1225 & 1226/A (Part IV), Kamandoddi Village, Shoolagiri Taluk, Krishnagiri District.	Proposed Rough Stone Quarry over an extent of 2.23.0 Ha	22.01.2021
32	M/s.K.Murugesh Rough Stone quarry at SF.No.1151, 1155. 1212 to 1219, 1222, 1225 & 1226/A (Part III), Kamandoddi Village, Shoolagiri Taluk, Krishnagiri District.	Proposed Rough Stone Quarry over an extent of 2.82.0 Ha	22.01.2021
33	M/s.Royal Blue metals Rough Stone quarry at SF.No.1151, 1155. 1212 to 1219, 1222, 1225 & 1226/A (Part II), Kamandoddi Village, Shoolagiri Taluk, Krishnagiri District.	Proposed Rough Stone Quarry over an extent of 2.87.0 Ha	22.01.2021
34	M/s.Royal Blue metals Rough Stone quarry at SF.No.1151, 1155. 1212 to 1219, 1222, 1225 & 1226/A (Part I), Kamandoddi Village, Shoolagiri Taluk, Krishnagiri District.	Proposed Rough Stone Quarry over an extent of 2.70.0 Ha	22.01.2021
35	M/s.V.Karunanithi Rough Stone quarry at SF.No.754 & 760 (Part V), Kamandoddi Village, Shoolagiri Taluk, Krishnagiri District.	Proposed Rough Stone Quarry over an extent of 4.30.0 Ha	22.01.2021
36	M/s.P.Mallikarjuma Rough Stone quarry at SF.No.754 & 760 (Part IV), Kamandoddi Village, Shoolagiri Taluk, Krishnagiri District.	Proposed Rough Stone Quarry over an extent of 3.50.0 Ha	22.01.2021
37	M/s.G.Ashoka Rough Stone quarry at SF.No.754 & 760 (Part III), Kamandoddi Village, Shoolagiri Taluk, Krishnagiri District.	Proposed Rough Stone Quarry over an extent of 3.66.0 Ha	22.01.2021
38	M/s.K.Govindhappa Rough Stone quarry at SF.No.754 & 760 (Part II), Kamandoddi Village, Shoolagiri Taluk, Krishnagiri District.	Proposed Rough Stone Quarry over an extent of 2.10.0 Ha	22.01.2021
39	M/s.R.Narayanappa Rough Stone quarry at SF.No.754 & 760 (Part I), Kamandoddi Village, Shoolagiri Taluk, Krishnagiri District.	Proposed Rough Stone Quarry over an extent of 1.80.0 Ha	22.01.2021
40	M/s.Sree Thiruchendur Murugan Blue Metals, SF.No.20/1, 2A, 2B, 20/3, 21/4, 6, 99/2, 99/3B & 99/6 of Thollamur Village, Vanur Taluk, Villupuram District.	Proposed Rough Stone and Gravel Quarry	21.01.2021
41	M/s.I.Justin Prabu, SF.No.43/4A, 4B, 4C, 5, 6 & 44/6 of Karasanur Village, Vanur Taluk, Villupuram District.	Proposed Rough Stone and Gravel Quarry	21.01.2021

42	M/s.V.Ramesh, SF.No.16/11, 16/12, 17/1, 18/3B of ThollamurVillage, Vanur Taluk, Villupuram District.	Proposed Rough Stone and Gravel Quarry owned by Mr.V.Ramesh in an extent of 3.53.0 Ha.	21.01.2021
43	M/s.A.Aridaas, SF.No.102/1A, 102/1B2, & 102/1BH3 of Eraiyur Village, Vanur Taluk, Villupuram District.	Proposed Rough Stone and Gravel Quarry owned by Mr.A.Aridaas in an extent of 1.77.0 Ha.	21.01.2021
44	Proposed Construction of Fishing Harbour by Fisheries Department, Government of Tamilnadu in Kazhuveli Waters in an extent of 3.42 Hectares at SF.No.49/2 of Alamparaikuppam Village, Cheyyur Taluk, Chengalpattu District for handling annual fish catch of 12000 Tonnes.	Construction of Fishing Harbour by Fisheries Department	29.01.2021
45	M/s. Kuthavakkam Properties Private Limited, S.F.No.370/3(P), etc of Athimugam Village, Shoolagiri Taluk, Krishnagiri District.	Proposed to carry out the Rough Stone Quarry over an extent of 4.92.5 Ha.	29.01.2021
46	M/s. Sathammai Chemical Private Limited, SF.No.17/1A, etc., Vayalapadi Village, Kunnam Taluk, Perambalur District.	Existing of Vayalapadi Limestone Mine over an extent of 4.75.0 Hect.	02.02.2021
47	M/s. Samayapuram Vel Industries Private Limited, SF.No.14/3A(P), 14/3B(P), 15/1A(P), 15/1B(P), 18/3A, 18/3B & 18/3C, Vayalapadi Village, Kunnam Taluk, Perambalur District.	Existing of Vayalapadi Limestone Mine over an extent of 3.57.0 Hect.	02.02.2021
48	M/s.Encee Aromatics Private Limited, S.F.No.545, 546, Sikkadasampalayam village, Mettupalayam Taluk, Coimbatore District.	Expansion of production of Ambrettolide, Iso Butyl Quinoline, Enamber etc.	03.02.2021
49	M/s. N.Raghu Rough Stone Quarry, SF.No.164/3B, 365/1 & 165/2 Menallur Village, Vembakkam Taluk, Tiruvannamalai District.	Rough Stone Quarries in a Cluster.	05.02.2021
50	M/s. D.Jayaprakash Rough Stone Quarry, SF.No.83/6, 83/7, 83/8, 83/9, 85/6, 85/7, 91/1 & 91/2A, Girijapuram Village, Vembakkam Taluk, Tiruvannamalai District.	Rough Stone Quarries in a Cluster.	05.02.2021
51	M/s. N.R.M Sons Blue Metals Rough Stone Quarry, SF.No.171/9, 171/12 Kilzhanickenpalayam Village and 103/4, 103/5, 103/6 & 103/10, Girijapuram Village, Vembakkam Taluk, Tiruvannamalai District.	Rough Stone Quarries in a Cluster	05.02.2021
52	M/s.A.William Rough Stone Quarry, SF.No.159, 160, & 164/2 part Kundiyathandalam Village, Vembakkam Taluk, Tiruvannamalai District.	Rough Stone Quarries in a Cluster.	05.02.2021

53	M/s.Bhuvaneswari Blue Metals Rough Stone Quarry, SF.No.181/111, etc, Kundiyathandalam Village, Vembakkam Taluk, Tiruvannamalai District.	Rough Stone Quarries in a Cluster.	05.02.2021
54	M/s.K.Chandrasekaran Rough Stone Quarry, SF.No.163/10A, 10B, 11 Kundiyathandalam Villages, Vembakkam Taluk, Tiruvannamalai District.	Rough Stone Quarries in a Cluster.	05.02.2021
55	M/s. R.Nethaji Rough Stone Quarry, SF.No.176/1A, etc Kundiyathandalam Village, Vembakkam Taluk, Tiruvannamalai District.	Rough Stone Quarries in a Cluster	05.02.2021
56	M/s.P.Sankar Rough Stone Quarry, SF.No.21/2F, 21/2G, 21/2H, 21/2I, 21/2J & 21/2K Ezhacheri Village, Vembakkam Taluk, Tiruvannamalai District.	Rough Stone Quarries in a Cluster.	05.02.2021
57	M/s.R.Elumalai Rough Stone Quarry, SF.No.62/1A, 62/1B, 62/2C, 62/2D, 62/4, 62/5, 62/6, 62/7, 62/9, 62/10 & 62/11 Ezhacheri Village, Vembakkam Taluk, Tiruvannamalai District.	Rough Stone Quarries in a Cluster.	05.02.2021
58	M/s.R.Monishkumar Rough Stone Quarry, SF.No.16/5A, 16/5B, 19/1B3, 19/4A1, 19/4B1, 19/4C1, 19/4D1, 19/5A, 19/5B1, 21/1C, 21/1D, 21/1E, 21/1F & 22/2B Ezhacheri Village, Vembakkam Taluk, Tiruvannamalai District.	Rough Stone Quarries in a Cluster	05.02.2021
59	M/s. Kodangipalayam Cluster - A, S.F. Nos. 117/1(P), etc, Kodangipalayam Village, Palladam Taluk, Tiruppur District.	Proposed 11 nos. of Rough Stone and Gravel Quarries over an Extent of 19.08.50 Ha	17.02.2021
60	M/s. Kodangipalayam Cluster - B, S.F. Nos. 10/2A, etc, Kodangipalayam Village, Palladam Taluk, Tiruppur District.	Proposed 06 nos. of Rough Stone and Gravel Quarries over an Extent of 13.23.26 Ha	17.02.2021
61	M/s. Kodangipalayam Cluster - C, S.F. Nos. 314/1A(P), 1(B), 324/2B, 324/2C, 311/2(P), 304/1, 308/3, 315/2A3B1, 320/2B2 and 324/2A, Kodangipalayam Village, Palladam Taluk, Tiruppur District.	Proposed 05 nos. of Rough Stone and Gravel Quarries over an Extent of 9.18.89 Ha.	17.02.2021
62	M/s. Ichipatti Cluster, S.F. Nos. 203/2, 204/3, 208/1, 208/2, 208/3, 221/1B, 223/2E2, 206/1, 216/1B3, 219/1B, 216/2B2, 215/4, 215/3A and 203/4 (P), Ichipatti Village, Palladam Taluk, Tiruppur District.	Proposed 08 nos. of Rough Stone and Gravel Quarries over an Extent of 11.29.92 Ha.	17.02.2021
63	M/s.J.Baskar Gravel Quarry, SF.Nos169/2C4 in Gunipalayam Village, Uthukottai Taluk, Thiruvallur District	Proposed Gravel Quarry lease over an extent of 9.71.0 Ha.	12.02.2021
64	M/s.The Ramco Cements Limited, SF.Nos:166/2B, etc in Illupaiyur Village, Ariyalur Taluk, Ariyalur District.	Proposed Lime Kankar quarry lease over on extent of 18.03.0 Ha.	17.02.2021

65	M/s.Srinivasa & Co., S.F.No. 886 & 887 (P) (Government Poromboke Land) of Achettipalli Village, Hosur Taluk, Krishnagiri District.	Proposed to carry out the Rough Stone Quarry over an extent of 3.50.0 Ha.	17.02.2021
66	M/s.The Ramco Cements Limited, S.F. No. of 22.81.5 Ha at S.F. No.116/1, etc. in Ottakovil Village, Ariyalur Taluk, Ariyalur District	Proposed Lime Kankar over on extent of 22.81.5 Ha.	17.02.2021
67	M/s.A.Kumar Rough Stone and Gravel Quarry, Survey Nos.272/3, 272/4, 273/1, 273/2, 273/3, 277/1 & 1240 of Gullapuram Village, Periyakulam Taluk, Theni District.	Rough Stone and Gravel Quarry over an extent of 7.41.5 Ha.	19.02.2021
68	M/s. B. Thiraviam, S.F.No.132/1 and 132/3 (P), Panamoopanpatti Village, Usilampatti Taluk, Madurai District	Existing Lime Stone Mines over an extent of 3.07.0 Ha of porambokku land.	23.02.2021
69	Proposed expansion of Tuticorin Air Port located at S.F. No. 4, etc of Kumaragiri Village, S.F.No.2-6, 8-11 of Servaikaranmadam Village, S.F. No. 4-10 of Mudivaithanandal Village, S.F.No.1, etc of Kattalankulam Village, Thoothukudi Taluk, Thoothukudi District	Expansion of Tuticorin Air Port	23.02.2021
70	M/s. S.Arutselvi located at S.F.No. 374/5 (Part 12), Anaimaalur Village, Arcot Taluk, Ranipet District	Proposed Rough Stone Quarry over an extent of 4.50.0 ha.	24.02.2021
71	M/s. Argunt Aggregate Private Limited, S. F.No. 374/5 (Part 14), Anaimaalur Village, Arcot Taluk, Ranipet District.	Proposed Rough Stone Quarry over an extent of 2.00.0 ha.	24.02.2021
72	Formation of Flood Carrier Canal from Cauvery(Kattalai) to South Vellar river to divert the flood water for sustaining drinking water needs and recharging ground water in the drought prone areas of Karur, Trichy, and Pudukkottai Districts. (Trichy District)	Formation of Flood Carrier Canal from Cauvery(Kattalai) to South Vellar. (Trichy District)	25.02.2021
73	Formation of Flood Carrier Canal from Cauvery(Kattalai) to South Vellar river to divert the flood water for sustaining drinking water needs and recharging ground water in the drought prone areas of Karur, Trichy, and Pudukkottai Districts.	Formation of Flood Carrier Canal from Cauvery(Kattalai) to South Vellar river (Pudukkottai District)	26.02.2021
74	Formation of Flood Carrier Canal from Cauvery(Kattalai) to South Vellar river to divert the flood water for sustaining drinking water needs and recharging ground water in the drought prone areas of Karur, Trichy, and Pudukkottai Districts.	Formation of Flood Carrier Canal from Cauvery(Kattalai) to South Vellar. (Karur District)	26.02.2021
75	Thiru.G.Rajkumar, M/s. Universal Mining Corporation, S.F.No.36(P), Kondappanickenpatti Village, Salem Taluk, Salem District.	Thiru.G.Rajkumar, M/s. Universal Mining Corporation, S.F.No.36(P), Kondappanickenpatti Village, Salem Taluk, Salem District.	26.02.2021

76	Thiru.G.Pasupathi, M/s. Sudharshan Mining Corporation, SF.No.77, Kondappanickenpatti Village, Salem Taluk, Salem District.	Sudharshan Mining Corporation,	26.02.2021
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11.10 COMPLAINT CELL

11.10.1 General Online Complaints

Due to increased environmental awareness and awareness on pollution control legislation, several complaints are being received from individuals / organizations / NGOs etc. regarding water, air and noise pollution. To take appropriate action against these complaints, a Complaint Cell is functioning in the TNPCB, Head Office, Chennai. For easy access of the Public and others, separate telephone number 044-22353153, fax 044-22353153 and e-mail – tnpcbcomplaint@gmail.com is allotted for receiving complaints and guidance. The complaints are attended by getting reports from the field officers. The action taken report is sent to the complainant. As a part of e-governance, TNPCB has implemented online grievance petition redressal system (www.pcbolgprs.in) from 1st March 2016 onwards. Complaints on environmental pollution due to industries can be registered through this portal. The status of complaint can also be tracked through online. During the period, 01.04.2020 to 31.03.2021, 2843 complaints were received, investigated and disposed off.

11.10.2 CM Cell and Amma Call Centre Complaints

The Board had established a separate section in the Head Office to attend CM Cell and Amma Call Centre petitions. CM Cell Petitions are disposed off within 15 days and Amma Call Centre petitions are disposed off within 7 days. From 1st April 2020 to 31st March 2021, 294 CM Cell petitions and 137 Amma Call Centre petitions were received and disposed off.

11.10.3 Grievance Redressal Centre

The Board has established a Grievance Redressal Centre in the Head Office with an objective of guiding entrepreneurs and project proponents for applying consent, most recent technology in pollution prevention and control, cleaner technologies, etc. and also to answer the queries of the general public on pollution

related matters. The Centre is functioning from 08.02.2018 onwards and can be contacted over phone (Phone number 044-2235 3134 to 044-2235 3142).

11.11 FUNDING TO OTHER DEPARTMENTS FOR ECO RESTORATION PROJECTS

i) Eco restoration of Vannankuttai Eri and Senguttai Eri in Erode District: The Government vide G.O. (D) No. 115 Environment and Forests (EC.1) Department dated 03.09.2020 have issued orders to the TNPCB to release Rs. 5.84 crores to Rural Development and Panchayat Raj Department through Environmental Management Agency of Tamil Nadu (EMAT), functioning under Director of Environment for eco-restoration of Vannankuttai Eri and Senguttai Eri in Gobichettipalayam union, Erode District. Accordingly, the Board has released Rs. 5.84 crores to EMAT.

ii) Eco-restoration of Suriyakulam tank in Tiruvannamalai District: The Government vide G.O. (D) No. 116 Environment and Forests (EC.1) Department dated 03.09.2020 have issued orders to the TNPCB to release Rs. 6.46 crores to EMAT for Eco-restoration of Suriyakulam tank in Arani Municipality, Tiruvannamalai District. Accordingly, the Board has released Rs. 3.23 (50%) Crores to EMAT. Work is under progress and being implemented by DoE, EMAT.

iii) Plugging of Sewage outfalls in Adyar, Buckingham canal and Cooum river basin in Chennai city: As per the orders issued in G.O. (Ms) No. 107, Municipal Administration and Water Supply (MW1) Department, dated 20.08.2019, the TNPCB has released Rs.20 crores to Chennai Metropolitan Water Supply and Sewerage Board for plugging of sewage outfalls in Adyar, Buckingham canal and Cooum river basin in Chennai city

iv) Study on assessment of micro plastics in coastal area estuaries and lakes in Tamil Nadu by the DoE: The Government vide G.O. (D) No. 313 Environment and Forests (EC.1) Department dated 03.12.2019 have issued orders to the TNPCB to release Rs. 81.2 lakhs to EMAT for Study on assessment of micro plastics in coastal area estuaries and lakes in Tamil Nadu. Based on that, the Board has released Rs.25.4 lakhs.

11.12 CONSTRUCTION WING

The Board is having a construction wing at Head Office, which is coordinating with new building construction works, maintenance works to the existing buildings, and other amenities required for the District office buildings located all over Tamil Nadu. The Board is having head office at Chennai and 38 District Offices in the Districts. The Head Office is functioning in own building since 1994. Among the 38 District Offices, 29 offices are functioning in own building. Offices of the JCEE's (M) and the laboratories are housed in the respective district office building. The Status of 38 District Office buildings are as follows.

S. No.	Status of own buildings	No. of buildings	Location of O/o. DEE
1	Functioning in the Own buildings	29	Ambattur, Chennai, Maraimalai Nagar, Sriperumbudur, Thiruvallur, Trichy, Pudukottai, Thanjavur, Cuddalore, Vellore, Villupuram, Hosur, Vaniyambadi, Coimbatore (North), Coimbatore (South), Madurai, Sivagangai, Dindigul, Erode, Namakkal, Perundurai, Tirunelveli, Thoothukudi, Virudhunagar, Nagapattinam Thiruvannamalai, Gummidipoondi, Ariyalur and Dharmapuri.
2	Building under construction	1	Salem
3	Land purchased. Detailed estimate cost received from the PWD and to be placed before the Board for approval	3	Tiruppur (North), Tiruppur (South) and Ooty
4	Land purchased. Detailed Estimate Cost awaited from PWD	1	Nagercoil
5	Land Purchased	1	Theni
6	Land Identification / Procurement under process (3 locations)	3	Ramanathapuram, Kumarapalayam and Karur.
	Total	38	

The construction of office building at Thiruvannamalai, Gummidipoondi and Ariyalur was completed during the year 2020-21.

11.13 RIGHT TO INFORMATION ACT

The Right to Information Act, 2005 enables all citizens to use their basic right to access information from public bodies. The TNPCB is having a separate cell at Head Office to deal with RTI Act applications. In pursuance to the directions of Government of Tamil Nadu, TNPCB designated Additional Chief Environmental Engineer in the Head Office as State Information Officer (Appellate Authority). Further, the Board has nominated Joint Chief Environmental Engineer in the Head Office and District Environmental Engineers in 38 District Offices as Public Information Officers to provide information to the person requesting information under the Right to Information Act, 2005. During the year 2020-21, the totally 2158 applications were received and necessary information were provided to all the applicants.

11.14 LIBRARY

The Board Library was established in 1989. At present, the library has a collection of above 12,362 books and reports. The collections are classified under Dewey decimal classification. The collection comprises of documents related to the field of Environmental Protection, Air Pollution, Vehicular Pollution, Water Pollution, Noise Pollution, Wastewater Treatment, Solid Waste Management, Hazardous Waste Management, Bio Medical Waste, Environmental Engineering, Industrial Pollution, Chemical Technology, Disasters, Soil, Energy, Pesticides, Biotechnology, Environmental Health, Environmental Economics, Environmental Chemistry, Environmental Impact Assessment, Environmental Education, Sustainable Development, Women and Environment, Environmental Law and Forestry. Library subscribes for 10 Journals, 16 Newspapers and 10 Magazines. Besides this, Annual Reports, Newsletters, Bulletins and Reports are received from different institutions (Indian & Foreign). Back volumes of the journals are bound and kept for reference in the Periodical Section. Membership is opened to students and public who are involved in the field of pollution control and environmental protection. Readers are provided photocopying facilities.

Membership Fee:

Student	:	Monthly	-	Rs.30.00
	:	Annual	-	Rs.75.00
Individual	:	Annual	-	Rs.100.00

School and college students, research scholars, lectures and professors, professionals, NGOs, industrialists and other Government Department officials and people involved in environmental protection field use to refer the library. The Readers not only from Chennai but also from all over Tamil Nadu and from neighboring States visit the library.

11.15 ENVIRONMENTAL STATEMENT

Under the Rule 14 of the Environment (Protection) Rules, 1986, submission of Environmental Statement is made compulsory for every industry covered under the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981 or the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016. Industries are required to submit Environmental Statement for the financial year ending 31st March every year in the prescribed format in Form-V before 30th September every year to the State Pollution Control Board. The Board receives Environmental Statements from industries, assesses the water, energy and other resources consumption and their efforts in reducing the pollution levels. Based on the finding, the industries are addressed to improve the systems.

11.16 TNPCB's SERVICES ONLINE

As a part of ease of doing business and transparency in service to the industries and public, the TNPCB has computerized its activities and providing services through online.

S. No.	Online Module	Service
1	Online Consent Management and Monitoring System (OCMMS)	Issue of Consent under Water & Air Acts
2	OCMMS – Hazardous Waste, Bio-Medical Waste, Solid Waste, Plastic Waste, E-Waste, C&D Waste & Battery	Issue of Authorization for management of Hazardous & Other Wastes, Bio-medical Waste, Solid Waste, E-Waste, C&D Waste, and Registration for Plastic Waste & Battery Handling
3	Online Hazardous Waste Manifest Application (OHWMS)	Manifest for transport of hazardous waste
4	Online Grievance Redressal System (OLGPRS)	Redressal of Public Complaints

The above module allows the applicant to file application, furnish additional details, payment of consent fee, receiving of consent/authorization orders through online. The system also provides SMS alert at the important stages of process of the application. The applicant can also view the real time status of the application and where and with whom the application is pending.

Further, the Government of Tamil Nadu has established a single window facilitation mechanism under Tamilnadu Industrial Guidance and Export Promotion Bureau to accord in-principle composite approval for pre-project clearances at the State Government level. During 2020-21, 31 project applications were received and out of them 30 were granted consent and one application was returned due to insufficient information.

11.17 SUSTAINABLE DEVELOPMENT GOALS

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. SDG covers 17 goals and 169 targets as resolved in the UN Summit held in September 2015. 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 by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials. Efforts shall also be 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.

Goal-12 'Responsible Consumption and Production' under this Goal, it is mandated to achieve significant 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.

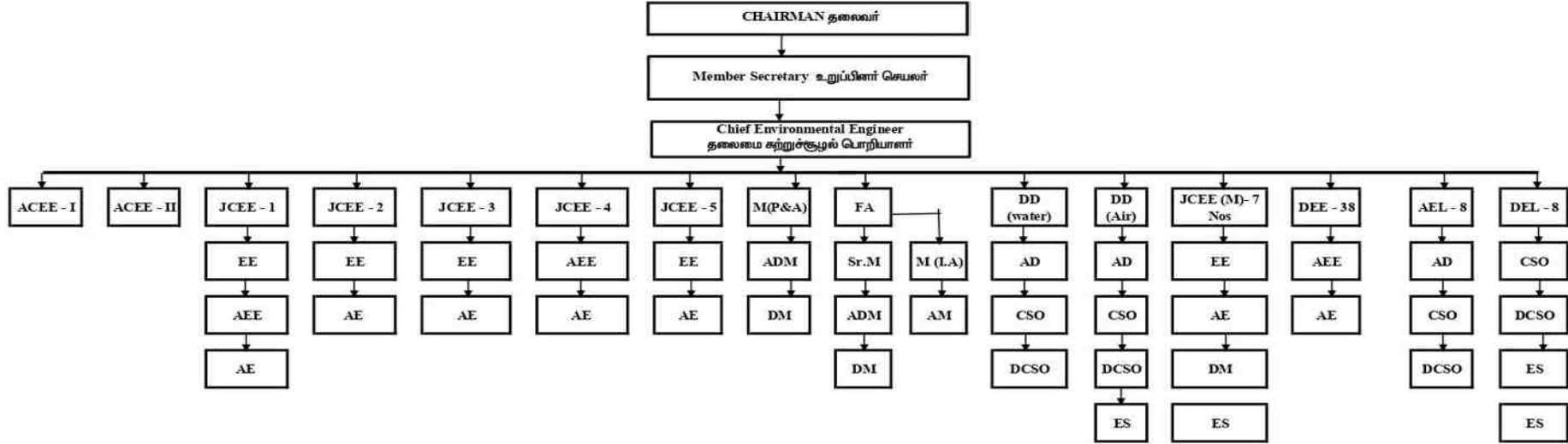
Goal – 13 'Climate Action' the Goal is to improve education, raise awareness and human and build institutional capacity on climate change mitigation, adaptation, impact reduction and early warning. The Board conducts training programme through the Environmental Training Institute (ETI) and awareness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

Goal, Target and Indicator	Sub category	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
6 Clean Water and Sanitation 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated waste water and substantially increasing recycling and safe use globally 6.3.2 Percentage of industries (17 category of highly polluting industries / grossly polluting industry / red category of industries) complying with waste water treatment	---	96%	96.5%	97%	97.97%	98.5%	98.6%
12 Responsible consumption and production 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout	No. of ambient air quality monitoring stations functioning	36 (28 under NAMP + 7 CAAQMS + 1 Mobile CAAQMS)	36 (28 under NAMP + 7 CAAQMS + 1 Mobile CAAQMS)	38 (28 under NAMP + 9 CAAQMS + 1 Mobile CAAQMS)	38 (28 under NAMP + 9 CAAQMS + 1 Mobile CAAQMS)	38 (28 under NAMP + 9 CAAQMS + 1 Mobile CAAQMS)	87 (52* under NAMP + 34 CAAQMS + 1 Mobile CAAQMS)
	No. of water quality monitoring stations	94 (55 under GEMS & MINARS +	94 (55 under GEMS & MINARS +	97 (55 under GEMS & MINARS +	97 (55 under GEMS & MINARS +	99 (55 under GEMS & MINARS +	89 (58 under GEMS & MINARS +

<p>their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment</p> <p>12.4.2 Quality monitoring by introduction of monitoring stations across the State</p>	functioning	30 under CCWMP + 9 CWQMS)	30 under CCWMP + 9 CWQMS)	30 under CCWMP + 12 CWQMS)	30 under CCWMP + 12 CWQMS)	30 under CCWMP + 14 CWQMS)	30 under CCWMP + 1** CWQMS)
	No. of ambient noise monitoring stations functioning	10 (under NANMNP)	10 (under NANMNP)	10 (under NANMNP)	10 (under NANMNP)	10 (under NANMNP)	10 (under NANMNP)
	No. of polluted river stretches identified	7	7	8	6	6	6
	No. of non attainment cities identified	0	0	0	1	2	2
	No. of CETPs functioning	35	35	35	35	36	36
	No. of CETPs adopting ZLD systems	31	31	31	31	32	32
<p>13 Climate Action</p> <p>13.3 Improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning</p> <p>13.3.2 Strengthening of institutional, systemic and individual capacity building to implement adaption, mitigation and technology transfer and development actions in the State</p>	Environmental training (Nos.)	28	18	36	39	60	23
	No. of beneficiaries	1746	522	388	761	1689	327
	Public awareness programme during festival seasons (Nos.)	100	109	111	172	190	193

Annexures

ANNEXURE - 1 இணைப்பு - 1
ORGANISATION CHART நிறுவன அமைப்பு



- ACEE - Additional Chief Environmental Engineer, கூடுதல் தலைமை சுற்றுச்சூழல் பொறியாளர்
- JCEE - Joint Chief Environmental Engineer இணை தலைமை சுற்றுச்சூழல் பொறியாளர்
- JCEE (M) - Joint Chief Environmental Engineer (Monitoring) இணை தலைமை சுற்றுச்சூழல் பொறியாளர்
- EE - Environmental Engineer சுற்றுச்சூழல் பொறியாளர்
- DEE - District Environmental Engineer மாவட்ட சுற்றுச்சூழல் பொறியாளர்
- AEE - Assistant Environmental Engineer உதவி சுற்றுச்சூழல் பொறியாளர்
- AE - Assistant Engineer உதவி பொறியாளர்
- FA - Financial Advisor நிதி ஆலோசகர்
- Sr.M - Senior Manager முழுநிலை மேலாளர்
- M(P&A) - Manager (Personnel & Administration) மேலாளர் (புள்ளி மற்றும் நிர்வாகம்)
- M (I.A) - Manager (Internal Audit) மேலாளர் (உள் தணிக்கை)
- DM - Deputy Manager துணை மேலாளர்
- ADM - Additional Manager கூடுதல் மேலாளர்

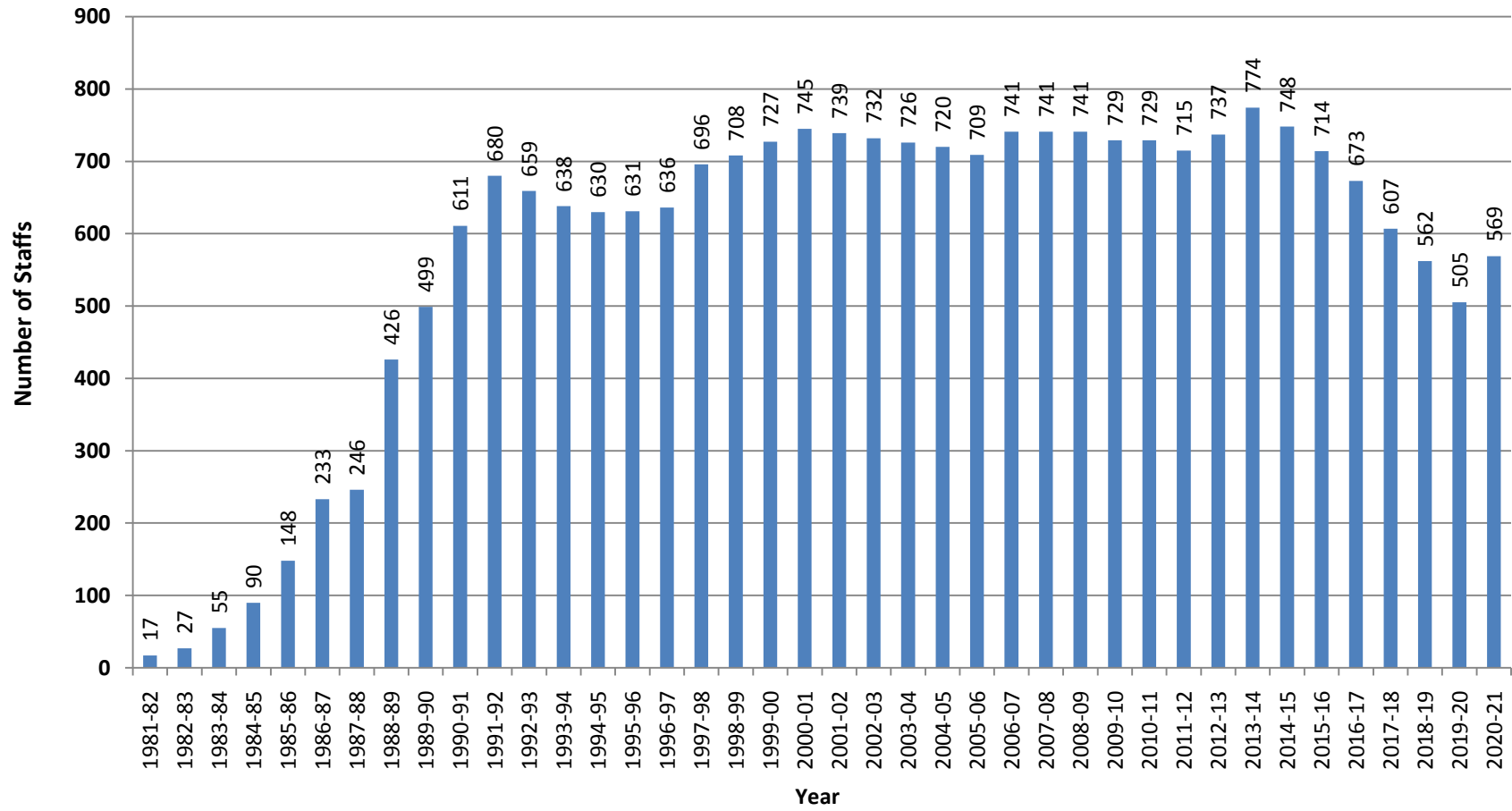
- DD - Deputy Director இணை இயக்குனர்
- AD - Assistant Director உதவி இயக்குனர்
- CSO - Chief Scientific Officer தலைமை விஞ்ஞான அலுவலர்
- DSCO - Deputy Chief Scientific Officer துணை தலைமை விஞ்ஞான அலுவலர்
- ES - Environmental Scientist சுற்றுச்சூழல் விஞ்ஞானி
- AEL - Advanced Environmental Laboratory மேம்படுத்தப்பட்ட சுற்றுச்சூழல் ஆய்வகம்
- DEL - District Environmental Laboratory மாவட்ட சுற்றுச்சூழல் ஆய்வகம்

Annexure - 2

PERFORMANCE OF LABORATORIES (APRIL 2020 TO MARCH 2021)

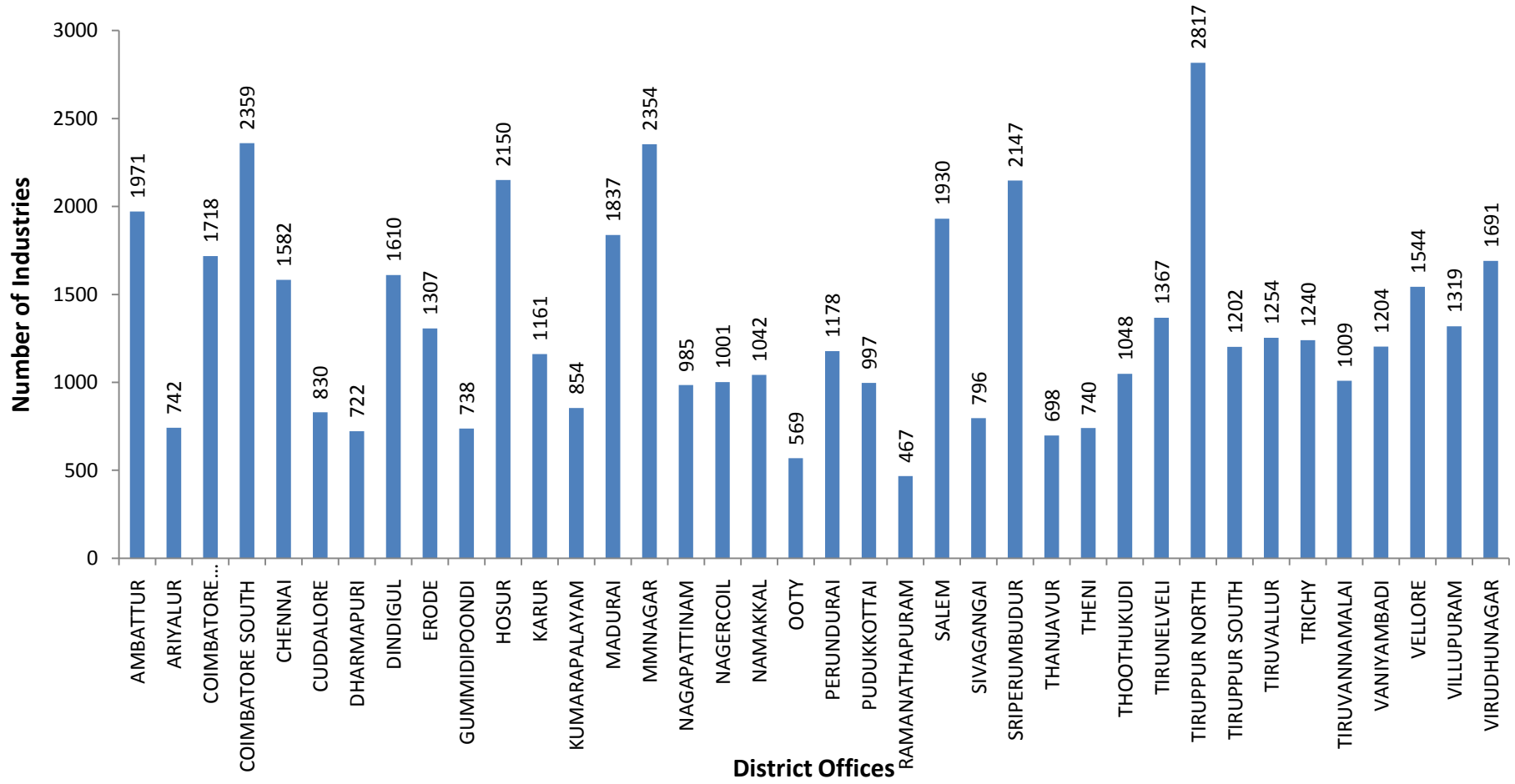
Sl. No	Name of the Laboratory	Water / Effluent samples																	Air survey			NAMP	Noise survey samples			
		Effluent	Sewage	GEMS	MINARS	CCWW	Well water	River water	CEPI	NWMP Project	Microbiology	Pesticides	Coastal	NRCP Project	NGT	Sludge	Others	Total	No. of industries	No. of AAQ stations	No. of SM		No. of industries		No. of points	
																							Regular	Complai nt	Regular	Complai nt
1	Chennai	660	257	0	57	217	14	0	63	0	11	76	14	257	25	1	155	1807	105	888	585	6520	157	0	567	0
2	Coimbatore	738	347	0	4	0	66	20	117	0	0	0	0	0	0	0	6	1298	67	333	178	3579	51	14	278	84
3	Cuddalore	818	332	1	48	0	144	27	0	0	0	0	9	0	0	0	50	1429	116	639	262	6671	113	3	761	20
4	Madurai	721	186	2	32	0	287	0	30	0	0	0	2	20	0	9	15	1304	70	496	157	5902	65	4	497	35
5	Salem	674	412	34	359	0	488	235	0	74	0	0	15	161	0	16	79	2547	88	788	233	4431	62	19	633	340
6	Tirunelveli	643	239	0	182	0	35	17	0	0	0	0	11	0	0	1	31	1159	35	175	45	138	30	13	174	82
7	Trichy	1086	542	15	9	0	139	0	0	0	0	0	9	0	0	1	2	1803	92	554	180	7192	90	0	454	0
8	Vellore	729	266	0	0	0	66	245	0	0	0	0	0	0	0	0	0	1306	105	505	231	84	70	0	375	0
9	Ambattur	1107	396	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1505	99	417	448	5834	81	6	405	35
10	Dindigul	1463	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1463	72	543	201	480	72	2	476	22
11	Hosur	1199	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1199	121	623	181	0	119	4	595	20
12	Manali	744	284	0	0	0	28	0	0	0	0	0	0	0	0	0	0	1056	74	405	198	0	68	7	363	43
13	Maraimalai Nagar	555	447	0	0	0	122	0	0	0	0	0	6	0	0	0	1	1131	125	634	470	0	125	0	583	0
14	Perundurai	875	31	0	0	0	226	36	0	0	0	0	0	2	0	0	24	1194	96	453	170	81	90	6	479	33
15	Thoothukudi	281	126	0	0	0	244	0	0	0	0	0	0	0	0	0	0	651	34	255	53		32	0	155	2
16	Tiruppur	754	97	0	0	0	46	255	0	0	0	0	0	0	0	0	1	1153	66	381	80	5081	53	4	267	14
Total		13047	3962	52	691	217	1905	835	210	76	11	76	66	440	25	28	364	22005	1365	8089	3672	45993	1278	82	7062	730

Annexure - 3
Staff strength of TNPCB (Year wise)

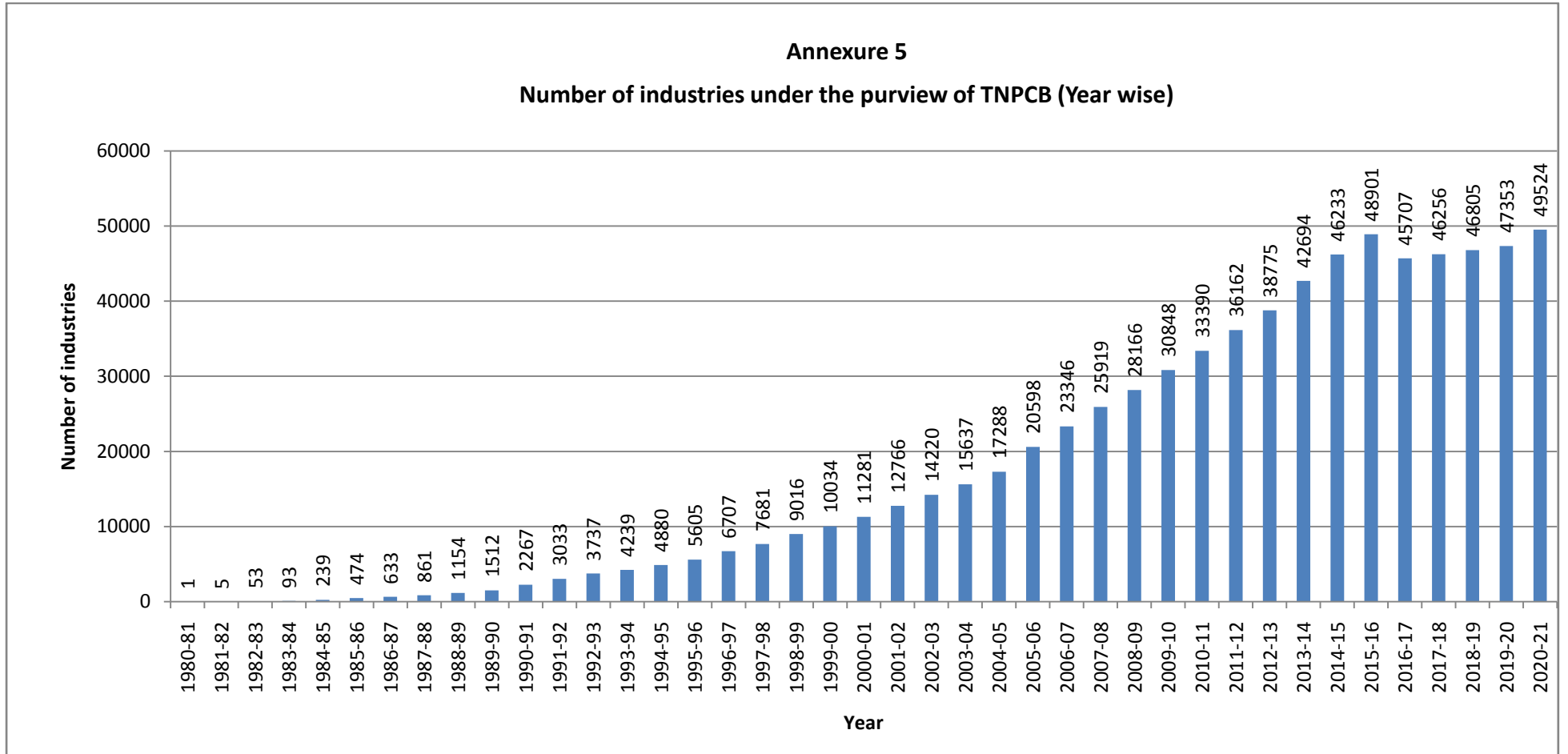


Annexure - 4

Number of industries under the purview of TNPCB (District Office wise)



Annexure 5
Number of industries under the purview of TNPCB (Year wise)



As per the revised categorization by CPCB in March 2016, White category industries need not obtain Consent to Operate. Hence there is a decline in the number of industries during the period 2016-2017.

Annexure - 6

STATUS OF AIR QUALITY OF IMPORTANT CITIES/ TOWNS OF TAMILNADU-UNDER NATIONAL AIR QUALITY MONITORING PROGRAMME (NAMP),
ANNUAL AVERAGE CONCENTRATIONS OF AIR POLLUTANTS, 2020-2021

S. No.	City & Location	Category	Annual Average Concentrations of Air Pollutants in $\mu\text{g}/\text{m}^3$											
			SO ₂			NO ₂			PM ₁₀			PM _{2.5}		
			Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
1	CHENNAI													
a)	Kathivakkam	Industrial	15	10	13	17	12	15	61	39	49	31	19	28
b)	Manali	Industrial	16	12	14	19	14	16	61	38	50	37	25	32
c)	Thiruvottiyur	Industrial	15	11	13	17	12	15	58	40	48	35	24	29
d)	Anna Nagar	Residential	12	8	10	23	17	20	69	45	56	33	20	25
e)	Adyar	Residential	11	7	9	20	15	18	53	35	44	24	16	19
f)	Kilpauk	Commercial (Traffic-intersection)	12	7	9	21	16	19	60	37	45	28	16	21
g)	Thiyagarayanagar	Commercial (Traffic-intersection)	12	8	10	24	17	20	74	47	59	37	19	27
h)	Nungambakkam	Commercial (Traffic-intersection)	11	8	10	22	17	19	60	41	49	29	18	22

Annexure - 6 Continued
STATUS OF AIR QUALITY OF IMPORTANT CITIES/ TOWNS OF TAMILNADU-UNDER NATIONAL AIR QUALITY MONITORING PROGRAMME(NAMP),
ANNUAL AVERAGE CONCENTRATIONS OF AIR POLLUTANTS, 2020-2021

S. No.	City & Location	Category	Annual Average Concentrations of Air Pollutants in µg/m ³											
			SO ₂			NO ₂			PM ₁₀			PM _{2.5}		
			Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
2	COIMBATORE													
a)	DCO	Mixed	8	6	7	18	15	17	78	30	52	34	13.6	23
b)	Ponaiyarajapuram	Residential	7	5	6	18	15	16	74	32	49	31	13	21
c)	SIDCO	Industrial	10	7	9	21	17	19	76	34	54	36	16	24
3	THOOTHUKUDI													
a)	Raja Agencies	Industrial	6	4	5	10	8	9	128	85	103	33	21	27
b)	AVM Buildings	Mixed	5	4	4	8	7	7	95	58	75	27	15	20
c)	SIPCOT	Industrial	5	3	4	8	6	7	93	58	73	27	15	20
4	MADURAI													
a)	Pichai Pillai Chavadi	Industrial	14	11	12	17	14	16	59	49	55	23	19	20
b)	Birla Guest House	Mixed	16	12	15	20	16	18	66	55	62	28	22	25
c)	Hotel Tamil Nadu	Residential	15	12	14	18	15	17	63	53	59	26	18	23

Annexure - 6 Continued

STATUS OF AIR QUALITY OF IMPORTANT CITIES/ TOWNS OF TAMILNADU-UNDER NATIONAL AIR QUALITY MONITORING PROGRAMME(NAMP), ANNUAL AVERAGE CONCENTRATIONS OF AIR POLLUTANTS, 2020-2021

S. No.	City & Location	Category	Annual Average Concentrations of Air Pollutants in $\mu\text{g}/\text{m}^3$											
			SO ₂			NO ₂			PM ₁₀			PM _{2.5}		
			Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
5	SALEM													
a)	Siva Tower	Mixed	9	7	8	26	19	21	46	29	35	21	15	18
6	TRICHY													
a)	Thenur	Commercial	13	9	11	17	13	15	50	26	36	24	14	18
b)	Main Guard Gate	Traffic Inter-Section	16	11	14	20	15	18	65	40	54	20	12	16
c)	Bishop Heber College	Mixed	12	8	10	16	12	14	45	21	33	22	12	17
d)	Golden Rock	Residential	11	8	10	15	12	14	43	23	32	22	13	17
e)	Central Bus Stand	Traffic Inter-Section	15	11	13	19	15	17	60	33	48	29	16	23
7	CUDDALORE													
a)	Eachangadu Village	Residential	17	9	13	20	15	18	59	42	52	34	31	30
b)	Imperial Road	Commercial	20	11	15	28	17	23	70	50	62	38	33	36
c)	SIPCOT	Industrial	17	8	12	20	15	18	55	41	49	31	26	29

Annexure - 6 Continued

STATUS OF AIR QUALITY OF IMPORTANT CITIES/ TOWNS OF TAMILNADU-UNDER NATIONAL AIR QUALITY MONITORING PROGRAMME(NAMP), ANNUAL AVERAGE CONCENTRATIONS OF AIR POLLUTANTS, 2020-2021

S. No.	City & Location	Category	Annual Average Concentrations of Air Pollutants in $\mu\text{g}/\text{m}^3$											
			SO ₂			NO ₂			PM ₁₀			PM _{2.5}		
			Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
8	METTUR													
a)	Raman Nagar	Residential	8	6	7	25	20	22	41	28	33	18	13	15
b)	SIDCO	Industrial	9	6	7	25	22	23	48	34	40	22	17	20
Prescribed standards(Annual average) for Industrial, Residential, Rural & Other areas			50			40			60			40		
Note: SO ₂ : Sulphur di oxide NO ₂ : Nitrogen di Oxides PM ₁₀ : Particulate Matter (less than 10 micron size) PM _{2.5} : Particulate Matter (less than 2.5 micron size)														

Annexure - 7

TNPCB - Continuous Ambient Air Quality Monitoring Stations - Year 2020- 2021 (Annual Average)

S. No	Station Name	Ambient Air Quality in µg/m ³																								
		SO ₂			NO ₂			PM ₁₀			PM _{2.5}			CO			O ₃			NH ₃			Benzene			
		Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	
1	Koyambedu	1.8	17.6	5.5	19.8	13.6	26	87	56	14	48	28	-	-	-	-	-	-	-	7.2	23.4	16.2	-	-	-	
2	Royapuram	2.9	7.4	4.5	10.1	43.4	23.1	23	79	52	9	40	22	0.39	0.97	0.56	8.4	31.7	19.9	22.5	73.3	39.8	0.3	1.5	0.9	
3	Perungudi	2.3	6.6	4.1	1.8	7.4	4.5	15	88	47	9	40	23	0.38	0.69	0.50	20.7	2.7	8.7	8.4	16.1	11.0	0.0	8.8	0.1	
4	Kodungaiyur	6.6	11.0	7.7	9.1	14.1	11.2	24	90	61	11	49	28	0.41	0.77	0.54	15.8	37.5	24.0	8.1	20.9	13.8	0.0	1.2	0.1	
5	Gumidipoondi SIPCOT	7.4	17.2	12.7	4.7	15.3	10.6	37	146	90	15	73	44	-	-	-	-	-	-	8.9	17.1	13.5	-	-	-	
6	Thoothukudi SIPCOT	5.5	5.7	5.65	3.1	8.2	4.9	38	63	51	-	-	-	0.13	0.24	0.17	24.1	56.2	37.5	-	-	-	-	-	-	
Standard (Annual Average)		50 µg/m ³			40 µg/m ³			60 µg/m ³			40 µg/m ³			----			100 µg/m ³			100 µg/m ³			5 µg/m ³			

Annexure - 8
Ambient Air Quality of Tamil Nadu during Deepavali Festival 2020

S. No.	Station Location	Ambient Air Quality (24 hrs average) µg/m ³											
		Pre-Deepavali (07.11.2020 to 13.11.2020)				Deepavali (14.11.2020)				Post-Deepavali (15.11.2020 to 21.11.2020)			
		PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂
I	CHENNAI												
1	Triplicane (R)	50	22	10	21	111	59	10	21	56	24	10	20
2	Besant Nagar (R)	48	20	10	21	52	37	12	22	46	20	10	20
3	Nungambakkam (R)	47	23	11	21	59	34	14	25	52	23	11	21
4	Sowcarpet (M)	62	26	11	22	100	51	13	28	61	28	11	23
5	T.Nagar (C)	57	21	11	11	72	32	11	24	57	24	11	21
II	COIMBATORE												
1	District Collector Office (C)	73	16	9	19	86	12	12	24	27	13	7	17
2	Kovundampalayam (R)	38	14	8	17	55	14	12	26	25	10	7	18
III	CUDDALORE												
1	Imperial Road (M)	80	45	19	25	90	52	25	30	73	39	19	23
2	Pudupalayam (R)	67	43	19	24	87	55	19	37	67	42	19	23
IV	MADURAI												
1	Thirunagar (R)	55	18	11	15	79	28	14	17	31	12	10	14
2	Birla Vishram	75	26	14	17	68	21	25	17	56	18	12	16
V	Salem												
1	Sarada Balamandir Boys Higher Secondary School (R)	40	25	8	17	110	49	17	45	44	24	9	17
2	Siva Tower (M)	46	19	9	14	128	46	23	49	45	19	9	14
VI	TRICHY												
1	Ramalinga Nagar (M)	62	28	11	15	92	41	14	15	62	25	11	13
2	Gandhi Nagar (R)	76	34	13	16	106	54	15	19	81	34	13	16
VII	TIRUNELVELI												
1	Pettai (M)	59	24	6	16	71	17	9	21	41	16	5	13
2	Tirunelveli Town (R)	48	19	12	21	62	17	9	23	52	10	6	15
VIII	VELLORE												
1	Gandhi Nagar (R)	98	35	11	25	98	35	14	34	51	20	7	18
2	SIDCO Industrial Estate	92	34	9	22	88	27	12	32	36	14	8	18
IX	HOSUR												
1	Intel Transit Home (R)	41	21	12	15	99	53	27	35	32	17	10	14
2	ESI Hospital (S)	33	17	9	15	49	22	13	24	33	15	13	14
X	THOOTHUKUDI												
1	Raju Nagar (R)	52	29	4	7	140	52	9	11	44	10	5	7
2	Cellisini Colony (R)	64	29	4	6	139	24	11	10	49	14	3	5

XI	DINDIGUL												
1	Rajagopal Iyengar Petrol Bunk (M)	77	36	17	23	114	56	25	31	91	43	24	31
2	Nagalpudur (R)	61	29	12	18	109	53	24	24	83	40	22	28
XII	TIRUPPUR												
1	Kumaran Complex (M)	125	34	10	12	130	66	16	19	102	38	16	31
2	Rayapuram (R)	150	44	14	17	226	60	25	31	98	15	13	16
XIII	Nagerkovil												
1	TNPCB Office	76	18	9	19	66	32	11	25	65	10	6	15
Standard		PM_{10} :100 $\mu g/m^3$, SO_2 : 80 $\mu g/m^3$, NO_2 : 80 $\mu g/m^3$. R- Residential, C - Commercial, M - Mixed Residential, S – Special Zone											

ANNEXURE - 9A

CAUVERY RIVER WATER QUALITY(UNDER GEMS PROGRAMME) 2020 – 2021

S.No.	Stations	Dissolved Oxygen mg/L	pH	Conductivity µmhos/cm	BOD mg/L	Nitrate mg/L	Nitrite mg/L	Fecal coliform MPN/100 ml	Total coliform MPN/100 ml	Turbidity NTU	Phenophthaline Alkalinity mg/L	Total Alkalinity mg/L	Chloride mg/L	COD mg/L	Total Kjeldahl Nitrogen mg/L	Ammonia-N, as N mg/L	Hardness as CaCO3 mg/L	Calcium as Ca++ mg/L	Magnesium as Mg++	Sulphate mg/L	Sodium mg/L	Total Dissolved Solids mg/L	Total Fixed Solids mg/L	Total Suspended Solids mg/L	Phosphate mg/L	Boron mg/L	Potassium mg/L	Fluoride mg/L	DBU Class
1	Mettur	6.3	7.4	378	3.5	0.19	0.050	30	81	9	15.3	142	34	16	1.7	0.8	13	54	47	16	24	261	244	16	0.26	<0.002	3.43	0.36	B
2	Pallipalayam	6.2	7.6	544	3.0	0.37	0.590	128	262	9	13.5	162	63	16	2.8	1.4	202	84	68	38	46	371	353	15	0.27	<0.002	4.80	0.51	B
3	Musiri borewell	6.7	7.6	782	2.0	1.020	0.033	1.8	6.1	1.2	<1	110	126	16	2.8	1.1	302	157	98	50	26.6	490	462	13	0.1	<0.002	4.4	0.62	A
4	Musiri ferrygate	6.2	8.2	666	2.40	0.216	0.143	36.6	112.0	6.0	21.7	180	92	12	2.4	1.1	179	57	52	40	33.0	435	412	9	0.1	<0.001	4.4	0.98	B

*CPCB-GEMS / MINARS Water quality criteria

A - Drinking Water Source without conventional treatment but after disinfection **B** - Outdoor bathing (organised)

C - Drinking water source after conventional treatment and disinfection **D**-Propagation of wild life and fisheries.

E -Irrigation, Industrial cooling,controlled waste disposal DBU Class-Designated Best Use mg/L-milligram per liter MPN-Most Probable Number

ANNEXURE - 9B

CAUVERY RIVER WATER QUALITY-(UNDER MINARS PROGRAMME) 2020 – 2021

S.NO	Stations	Dissolved Oxygen mg/L	pH	Conductivity µmhos/cm	BOD mg/L	Nitrate mg/L	Nitrite mg/L	Fecal coliform MPN/100 ml	Total coliform MPN/100 ml	Turbidity NTU	Phenolphthaline Alkalinity mg/L	Total Alkalinity mg/L	Chloride mg/L	COD mg/L	Total Kjeldahl Nitrogen mg/L	Ammonia-N as N mg/L	Hardness as CaCO3 mg/L	Calcium as Ca++ mg/L	Magnesium as Mg++ mg/L	Sulphate mg/L	Sodium mg/L	Total Dissolved Solids mg/L	Total Fixed Solids mg/L	Total Suspended Solids mg/L	Phosphate mg/L	Boron mg/L	Potassium mg/L	Fluoride mg/L	DBU Class
1	Bathira kalliamman koil	6.5	7.1	171	2.2	0.110	0.010	25	70	3	<1	50	17	9	2	0.7	49.8	17	12	4	8	122	111	5	0.07	<0.002	2.1	0.62	B
2	Sirumugai	6.5	7.1	202	<2	0.140	0.010	33	82	3	<1	80	20	8	2	0.7	75	31	27	11	7	141	130	5	0.16	<0.002	1.8	0.71	B
3	Bhavani sagar	6.4	7.1	153	2.2	0.170	0.110	19	54	5	<1	66	17	10	2	0.8	61	27	18	4	11	120	110	8	0.31	<0.002	2.3	0.53	B
4	Bhavani	6.4	7.7	482	<2	0.130	0.040	64	170	6	19	166	44	14	3	1.2	184	77	48	30	34	330	311	12	0.11	<0.002	4.9	0.38	B
5	R.N. Pudur	6.3	7.9	495	<2	0.200	0.005	57	144	6	14	165	53	15	2	0.9	163	68	45	25	27	341	320	12	0.13	<0.002	6.9	0.83	B
6	Vairapalayam	6.2	7.8	508	<2	0.192	0.021	42	104	7	19	181	57	15	2	0.9	187	70	64	25	34	343	319	12	0.08	<0.002	4.7	0.51	B
7	P. Velur	6.4	8.0	610	2	0.190	0.030	100	240	7	14	170	82	15	2	1.0	192	64	64	34	48	408	387	14	0.31	<0.002	4.1	0.16	B
8	Mohanur	6.4	8.0	645	2.1	0.160	0.040	107	247	7	18	181	88	16	2	1.0	200	60	71	37	42	434	413	17	0.39	<0.002	5.1	0.85	B
9	Madathu-kulam	6.3	7.1	514	2	0.482	0.076	51	124	7	14	118	91	15	2	0.9	152	68	57	20	44	337	321	14	0.16	<0.002	4.2	0.89	B
10	Thirumukkudal	6.4	8.0	735	4.1	0.190	0.190	181	424	8	23	211	106	17	3	1.3	224	69	67	43	49	495	475	14	0.28	<0.002	4.4	1.27	D
11	Trichy U/S	6.5	8.0	589	4	0.220	0.080	109	240	5	17	149	76	14	3	1.2	174	51	45	37	32	384	362	12	0.130	<0.002	2.9	1.166	D
12	Trichy D/S	6.3	7.7	663	3.1	0.360	0.540	228	497	8	21	168	84	16	3	1.4	184	59	44	34	31	439	416	16	0.330	<0.002	4.6	0.960	B
13	Grand Anaicut	6.4	7.7	657	2.7	0.250	0.730	38	94	7	15	153	83	17	2	1.1	187	54	51	35	33	428	402	13	0.260	<0.002	10.9	0.690	B
14	Coleroon	6.3	8.2	6370	2.8	2.774	0.301	76	181	34	22	176	187 8	32	4	1.8	822	223	506	315	825	4144	4103	20	0.382	<0.002	16.5	0.87	B
15	Pitchavaram	6.1	7.8	638	2.5	1.800	0.050	86	202	16	12	165	98	21	3	1.3	178	79	75	34	126	467	447	22	0.500	<0.002	8.9	0.40	B
16	Karun- thattankudi	6.5	7.8	619	4	0.143	0.122	33	75	7	13	162	80	14	2	0.9	176	50	44	32	35	408	386	13	0.124	<0.002	4.30	0.38	D

*CPCB-GEMS / MINARS Water quality criteria

A - Drinking Water Source without conventional treatment but after disinfection B - Outdoor bathing (organised)

C - Drinking water source after conventional treatment and disinfection D-Propagation of wild life and fisheries

E -Irrigation, Industrial cooling,controlled waste disposal

DBU Class-Designated BestUse mg/L-milligram per liter MPN-Most Probable Number

ANNEXURE - 9C

CAUVERY RIVER WATER QUALITY - (UNDER MINARS PROGRAMME) 2020 - 2021

S.NO	Stations	Dissolved Oxygen mg/L	pH	Conductivity μ mhos/cm	BOD mg/L	Nitrate mg/L	Nitrite mg/L	Fecal coliform MPN/100	Total coliform MPN/100 ml	Turbidity NTU	Phenophthaline Alkalinity mg/L	Total Alkalinity mg/L	Chloride mg/L	COD mg/L	Total Kjeldahl Nitrogen mg/L	Ammonia-N, as N mg/L	Hardness as CaCO ₃ mg/L	Calcium as Ca++ mg/L	Magnesium as Mg++ mg/L	Sulphate mg/L	Sodium mg/L	Total Dissolved Solids mg/L	Total Fixed Solids mg/L	Total Suspended Solids mg/L	Phosphate mg/L	Boron mg/L	Potassium mg/L	Fluoride mg/L	DBU Class	
1	Komarapalayam	5.9	7.6	491	4	0.29	0.15	163	388	8.6	15	164	56	18	2.9	1.4	148	51	47	22	37	329	307	15.0	4.4	<0.002	4.8	0.7	D	
2	Urrachikottai	6.3	7.8	405	2	0.15	0.02	45	115	6.6	15	157	38	15	2.0	0.9	146	48	51	19	33	288	270	9.3	0.1	<0.002	4.8	0.8	B	
3	Chirampalayam	6.6	7.6	374	<2	0.21	0.263	147	418	14	5	142	41	17	3	1	126	50	42	11	29	269	249	17	0.17	<0.002	3.6	0.4 5	D	
4	Pugalur	6.3	7.7	423	4	0.36	0.21	72	167	7.9	14	156	41	14	2.2	0.9	141	52	40	23	27	287	267	12.0	0.3	<0.002	4.0	0.8	D	
5	Pettavaithalai	6.4	8.1	591	2	0.21	0.09	108	257	5.0	16	157	76	13	2.7	1.2	175	54	46	35	28	388	365	12.0	0.2	<0.002	3.8	1.1	B	
6	Kumbakonam	6.5	7.7	581	3	0.07	0.19	30	85	6.3	15	153	70	14	2.6	1.2	173	47	42	32	37	385	363	14.2	0.2	<0.002	3.8	0.4	B	
7	Mayiladuthurai	6.0	7.5	1209	2	0.36	0.04	41	115	6	22	173	224	22	3	1	251	74	116	38	164	786	760	14	0.3	<0.002	8.9	0.6	B	
8	Sathiyamanagalam	6.4	7.0	199	<2	0.15	0.02	21	59	5	<1	78	21	10	2	1	74	36	18	7	14	145	132	8	0.1	<0.002	2.8	0.3	B	
9	Kalingalrayan Canal (B5)	6.2	7.6	492	3	0.20	0.01	41	113	7	15	171	47	15	2	1	173	67	47	27	27	332	312	13	0.1	<0.002	3.9	0.5	B	
10	Kalingalrayan Canal (B10)	6.3	8.8	494	3	0.22	0.01	74	174	9	14	168	46	15	4	1	189	69	24	29	27	337	298	16	0.1	<0.002	4.3	0.5	B	
11	Thirumanimuthar Uthamasolacram	4.3	7.0	2239	13	0.71	0.77	746	1627	21	33	563	343	82	7	4	526	125	186	59	267	1490	1410	36	4.6	<0.002	11.6	1.5	E	
12	Vasista Thulukkanur	4.6	7.2	3158	115	0.19	0.15	9059	18577	51	30	446	800	378	12	7	938	241	402	56	219	2133	1974	69	3.9	<0.002	35.0	1.4	E	
13	Sarabanga Edappadi							No Flow																						

*CPCB-GEMS / MINARS Water quality criteria

A - Drinking Water Source without conventional treatment but after disinfection B - Outdoor bathing (organised)

C - Drinking water source after conventional treatment and disinfection குடிநீர் D-Propagation of wild life and fisheries

E -Irrigation, Industrial cooling,controlled waste disposal

DBU Class-Designated BestUse mg/L-milligram per liter MPN-Most Probable Number

ANNEXURE - 10

TAMIRAPARANI RIVER WATER QUALITY-(UNDER MINARS PROGRAMME) 2020- 2021

S.No.	Stations	Dissolved Oxygen mg/L	pH	Conductivity μ mhos/cm	BOD mg/L	Nitrate mg/L	Nitrite mg/L	Fecal coliform MPN/100 ml	Total coliform MPN/100 ml	Turbidity NTU	Phenolphthaline Alkalinity mg/L	Total Alkalinity mg/L	Chloride mg/L	COD mg/L	Total Kjeldahl Nitrogen mg/L	Ammonia-N as N mg/L	Hardness as CaCO ₃ mg/L	Calcium as Ca ⁺⁺ mg/L	Magnesium as Mg ⁺⁺ mg/L	Sulphate mg/L	Sodium mg/L	Total Dissolved Solids mg/L	Total Fixed Solids mg/L	Total Suspended Solids mg/L	Phosphate mg/L	Boron mg/L	Potassium mg/L	Fluoride mg/L	DBU Class
1	Papanasam	7.4	6.4	45	2.3	0.16	0.03	4	11	2	<1	12	14	11	<0.56	<0.28	9.4	3	0.84	2.4	0.68	27	24.2	3.2	<0.15	<0.002	0.5	<0.01	A
2	Cheranmadevi	7.0	6.2	79	2.4	0.23	0.05	12	39	4	<1	23	18	22	0.93	<0.28	21	6	1.87	5.9	1.26	47	41.2	6.2	<0.15	<0.002	1.2	<0.01	A
3	Kokirakulam	6.8	6.3	110	2.5	0.32	0.77	30	90	4	<1	37	22	27	1.3	0.56	31	9.9	1.49	5.09	4.7	66	59	6.6	0.15	<0.002	1.5	<0.01	B
4	Murapanadu	7.2	6.9	310	2.6	0.16	0.13	43	129	8	<1	89	52	35	1	0.56	92	30	5.19	20.5	33.2	194	187	6.7	0.44	<0.002	5.6	<0.01	B
5	Thiruvaidamarudur	7.1	6.2	65	2.4	0.56	0.05	10	22	4	<1	19	15	18	1.68	<0.28	15	5	0.97	6.5	0.92	40	35.2	4.8	<0.15	<0.002	1	<0.01	A
6	Ambasamudram	7.4	6.3	57	2.4	0.25	0.04	4	13	4	<1	17	16	14	1.12	<0.56	11	3.6	0.73	3.5	0.73	35.5	31	4.5	<0.15	<0.002	1.1	<0.01	A
7	Authoor	7.1	6.8	486	3.2	0.35	0.13	89	249	4	<1	139	94	50	2.28	0.36	115	36	5.9	41	56	302	295	7.3	<0.15	<0.002	6.1	<0.01	B
8	Eral	6.8	6.9	386	3.0	0.36	0.07	61	165	3	<1	130	60	41	1.79	0.35	106	35	4.9	28.3	36.9	242	235	6.8	<0.15	<0.002	3.9	<0.01	B
9	Kallidai Kurichi	7.3	6.3	76	2.3	0.11	2.69	9	18	4	<1	23	16	17	1.4	3.14	16	5.2	0.98	10.6	7.04	46.5	40.2	4.7	<0.15	<0.002	1.6	<0.01	A
10	Srivaikuntam	6.9	7.0	236	2.8	0.20	0.16	48	135	6	<1	65	41	34	1.17	0.28	69	23	2.95	14.9	19.9	147	141	5.8	<0.15	<0.002	2.8	<0.01	B
11	Vellakovil	6.5	6.3	142	2.7	0.17	0.46	25	84	4	<1	43	27	31	0.96	<0.28	39	12	2.27	7.27	7.85	88.2	81.5	6.7	0.18	<0.002	1.7	<0.01	B
12	Sivalaperi	6.5	6.4	126	2.6	0.205	0.197	36	110	4	<1	41	23	31	1.2	<0.28	35	11	2.17	5.46	5.3	77.5	70.6	6.8	<0.15	<0.002	1.5	<0.01	B

*CPCB-GEMS / MINARS Water quality criteria

A - Drinking Water Source without conventional treatment but after disinfection B - Outdoor bathing (organised)

C - Drinking water source after conventional treatment and disinfection D-Propagation of wild life and fisheries

E -Irrigation, Industrial cooling,controlled waste disposal

DBU Class-Designated BestUse mg/L-milligram per liter MPN-Most Probable Number

Annexure - 11

PALAR & VAIGAI RIVER WATER QUALITY(UNDER MINARS PROGRAMME) 2020-2021

S.No.	Stations	Disolved Oxygen mg/L	pH	Conductivity µmhos/cm	BOD mg/L	Nitrate mg/L	Nitrite mg/L	Fecal coliform MPN/100 ml	Total coliform MPN/100 ml	Turbidity NTU	Phenophthaline Alkalinity mg/L	Total Alkalinity mg/L	Chloride mg/L	COD mg/L	Total Kjeldahl Nitrogen mg/L	Ammonia-N,as N mg/L	Hardness as CaCO3 mg/L	Calcium as Ca++ mg/L	Magnesium as Mg++ mg/L	Sulphate mg/L	Sodium mg/L	Total Dissolved Solids mg/L	Total Fixed Solids mg/L	Total Suspended Solids mg/L	Phosphate mg/L	Boron mg/L	Potassium mg/L	Fluoride mg/L	DBU Class		
1	Vaigai			Not Collected																											
2	Palar	5.8	7.5	532	2.5	0.60	<0.05	45	137	2.8	<1	183	42.8	21.3	2.2	<2	102.7	24.3	11.7	46.5	65.5	313	199	4.7	<0.5	<0.001	3	<0.1	B		

*CPCB-GEMS / MINARS Water quality criteria

A - Drinking Water Source without conventional treatment but after disinfection **B** - Outdoor bathing (organised)

C - Drinking water source after conventional treatment and disinfection **D**-Propagation of wild life and fisheries

E -Irrigation, Industrial cooling,controlled waste disposal

DBU Class-Designated BestUse mg/L-milligram per liter MPN-Most Probable Number

Annexure - 12

LAKE WATER QUALITY(UNDER MINARS PROGRAMME) 2020-2021

S.No.	Stations	Dissolved Oxygen mg/L	pH	Conductivity µmhos/cm	BOD mg/L	Nitrate mg/L	Nitrite mg/L	Fecal coliform MPN/100 ml	Total coliform MPN/100 ml	Turbidity NTU	Phenolphthaleine Alkalinity mg/L	Total Alkalinity mg/L	Chloride mg/L	COD mg/L	Total Kjeldahl Nitrogen mg/L	Ammonia-N as N mg/L	Hardness as CaCO ₃ mg/L	Calcium as Ca ⁺⁺ mg/L	Magnesium as Mg ⁺⁺ mg/L	Sulphate mg/L	Sodium mg/L	Total Dissolved Solids mg/L	Total Fixed Solids mg/L	Total Suspended Solids mg/L	Phosphate mg/L	Boron mg/L	Potassium mg/L	Fluoride mg/L	DBU Class
1	Udhagamandalam	5.9	7.0	424	3.8	0.3	0.2	44	117	15	<1	105	49	26	4.1	1.8	109	53	18	8	44	286	257	24	0.300	<0.002	6.2	0.7	D
2	Kodaikanal	6.2	7.1	122	2.9	0.4	0.2	39	77	0	<1	4	26	32	4.6	2.7	28	7	3	9	9	93	85	7	0.210	0.010	2.9	0.1	B
3	Yercaud	6.5	7.2	336	2.0	0.3	0.030	85	241	9	9.3	106	47	15	2.2	1.1	98	47	25	6	22	227	208	17	0.100	<0.002	6.2	0.2	B
4	Veeranam	6.5	7.2	336	2.0	0.3	0.030	85	241	9	9.3	106	47	15	2.2	1.1	98	47	25	6	22	227	208	17	0.100	<0.002	6.2	0.2	B
5	Poondi	6.0	7.7	518	2.3	0.51	<0.05	<1.8	51	3	<1	132	76	31	2	2	207.6	52	19	72	55	308	203	9	<0.5	<0.001	6.1	<0.1	B
6	Red Hills	5.6	7.7	483	2.7	<1	<0.05	93	121	4	<1	165	57	31	4	4.5	170	38	18	51	64	288	190	7	<0.5	<0.001	7.80	<0.1	B
7	Porur	5.8	7.8	1289	2.7	<1	<0.05	76	236	8	<1	215	239	32	3	2.8	253	52	30	98	122	788	606	12	<0.5	<0.001	19.6	<0.1	B
8	Pulicat	5.2	7.7	46101	2.9	1.0	<0.05	45	72	18	<1	194	17275	63	7.8	2.4	6453	729	1126	2208	3553	31437	45448	23	0.2	<0.001	141.0	<0.1	B

***CPCB-GEMS / MINARS Water quality criteria**

A - Drinking Water Source without conventional treatment but after disinfection **B** - Outdoor bathing (organised)

C - Drinking water source after conventional treatment and disinfection **D**-Propagation of wild life and fisheries.

E -Irrigation, Industrial cooling,controlled waste disposal

DBU Class-Designated BestUse mg/L-milligram per liter MPN-Most Probable Number

Annexure - 13
STATUS OF WATER QUALITY UNDER NATIONAL WATER MONITORING PROGRAMME (NWMP) FOR THE YEAR APRIL 2020 - MARCH 2021

S.No.	Name of station	Station Code	D.O mg/L	pH	Conductivity m mhos/cm	BOD at 27 C mg/L 27	Nitrate mg/L	Nitrite mg/L	Fecal coliform MPN/100 ml	Total coliform MPN/100 ml	Turbidity NTU	Phenophthaline Alkalinity mg/L	Total Alkalinity mg/L	Chloride mg/L	COD mg/L	Total Kjeldahl Nitrogen mg/L	Ammonia-N,as N mg/L	Hardness as CaCO3 mg/L	Calcium as Ca++ mg/L	Magnesium as Mg++ mg/L	Sulphate mg/L	Sodium mg/L	Total Dissolved Solids mg/L	Total Fixed Solids mg/L	Total Suspended Solids mg/L	Phosphate mg/L	Boron mg/L	Potassium mg/L	Fluoride mg/L	DBU Class
1	Sellandipalayam	4812	6.4	7.5	3423	<2	0.4	0.04	4.5	11.7	3.9	12.1	280	877	27	3.4	1.4	745	282	240	139	301	2234	2205	15	0.3	<0.002	14.3	1.3	A
2	Vangal Road	4813	6.4	7.3	7922	<2	3.1	0.1	2.8	6.1	5.1	1	221	2171	51	4.9	2.5	3425	1531	1136	211	596	5025	4957	15	0.1	<0.002	22.5	1.4	A
3	Avathipalayam	4827	6.1	7.6	447	<2	0.4	0.3	27	73	6.3	13	161	46	14	2.2	12	143	41	36	23	31	298	278	14	0.3	<0.002	7.2	0.8	B

*CPCB-GEMS / MINARS Water quality criteria

A - Drinking Water Source without conventional treatment but after disinfection **B** - Outdoor bathing (organised)

C - Drinking water source after conventional treatment and disinfection **D**-Propagation of wild life and fisheries.

E -Irrigation, Industrial cooling,controlled waste disposal

DBU Class-Designated BestUse mg/L-milligram per liter MPN-Most Probable Number

Annexure - 14
STATUS OF WATER QUALITY UNDER NATIONAL RIVER CONSERVATION PROJECT (NRCP) FOR THE YEAR APRIL 2020 TO MARCH 2021

S No.	Name of station	Station Code	D.O mg/L	pH	Conductivity in m mhos/cm	BOD at 27 C mg/L ²⁷	Nitrate mg/L	Nitrite mg/L	Fecal coliform MPN/100 ml	Total coliform MPN/100 ml	Turbidity NTU	Phenolphthaleine Alkalinity mg/L	Total Alkalinity mg/L	Chloride mg/L	COD mg/L	Total Kjeldahl Nitrogen mg/L	Ammonia-N as N mg/L	Hardness as CaCO ₃	Calcium as Ca ⁺⁺ mg/L	Magnesium as Mg ⁺⁺ mg/L	Sulphate mg/L	Sodium mg/L	Total Dissolved Solids mg/L	Total Fixed Solids mg/L	Total Suspended Solids mg/L	Phosphate mg/L	Boron mg/L	Potassium mg/L	Fluoride mg/L	mDBU Class	
1	Nandambakkam	10033	3.6	7.5	1730	10	0.5	0.4	93	583	43	<1	282	291	73	7.4	3.9	517	130	47	112	170	986	830	26	1.7	<0.001	16	<0.1	m	
2	Ekkaduthangal	10034	1.1	7.3	1760	13.7	3.2	0.6	202	665	14	<1	342	259	86	12	7	304	66	33.6	119.5	141	1131	930	36	2.5	<0.001	17.4	<0.1	E	
3	Jafferkanpet	10035	Nil	7.4	1773	17	3.4	0.702	238	729	14	<1	343	252	90.8	12	6.3	291	68	30	125	140	1128	925	37	3	<0.001	14	<0.1	E	
4	Maraimalai Adigalar Bridge	10036	1.0	7.4	1732	13	2.2	0.66	461	2066	7.4	<1	318	251	70	15	9	269	61	28	113	124	1096	901	37	2.5	<0.001	18.8	<0.1	E	
5	Before Golf Course	10037	Nil	7	1525	15	1	-	170	1400	16	<1	230	205	144	6	2	460	250	210	172	86	1098	834	32	-	<0.001	22	<0.1	E	
6	Kotturpuram Bridge	10038	1.0	7.4	7112	<2	1.6	0.7	60	276	6.2	<1	321	3069	79	12	7	872	100	151	664	489	5950	5579	36	2.6	<0.001	41	<0.1	E	
7	Near Boat Club	10039	1.0	7.0	3742	17	1	1	155	814	8	<1	298	890	106	13	7	382	65	54	143	366	1987	1694	41	2	<0.001	29	<0.1	E	
8	Anna Nagar	10040	Nil	7.4	2179	<2	1.5	0.5	457	1483	115	-	358	377	254	22	12	313	75	31	159	137	1187	1080	222	3	<0.001	17	<0.1	E	
9	Arumbakkam	10041	1.7	7.0	2200	<2	2	0.4	382	1126	118	-	374	372	196	22	13	326	77	33	159	140	1312	1100	203	3	<0.001	19	<0.1	E	
10	Aminjikarai	10042	2.0	7.0	2227	<2	0.9	0.34	601	1756	160	<1	394	368	267	21	11	312	78	29	159	155	1321	1098	202	3.2	<0.001	18	<0.1	E	
11	Poonamallee	10043	1.0	8.0	2562	103	2	1	382	1281	404	<1	399	445	284	15	9	451	95	54	221	192	1544	1261	274	2	<0.001	22	<0.1	E	
12	College Road	10044	Nil	7	2368	27	1	1	248	951	28	-	372	419	117	19	11	321	74	33	147	150	1506	1291	66	4	<0.001	19	<0.1	E	
13	Near Central Jail	10045	Nil	7.3	2678	25	1.17	0.21	379	1600	17	<1	424	460	113	26	15	374	81	41	153	199	1602	1361	52	5	<0.001	23	<0.1	E	
14	Napier Bridge	10046	1.2	7.2	21485	15	1	1	309	964	7	<1	301	7709	88	16	11	1850	221	316	114.0	1284	13586	1308.7	92	3	<0.001	10.7	<0.1	E	
15	Otteri Nullah (origin)	10047	Nil	7.0	2995	40	2	0.3	414	1458	58	<1	444	550	181	26	15	497	103	59	188	170	1848	1594	110	3	<0.001	20	<0.1	E	
16	Kilpauk Garden	10048	Nil	7.0	2273	25	1	0.5	299	1497	21	<1	406	396	118	21	14	392	89	41	145	148	1464	1218	59	3	<0.001	18	<0.1	E	
17	Erukenjeri	10049	4.0	7.0	2116	29	1.1	0.33	256	1053	40	<1	366	298	120	25	14	226	55	21	129	158	1235	1011	40	3	<0.001	19	<0.1	E	
18	Kodungaiyur	10050	Nil	7.2	2555	48	<1	0.275	185	945	41	<1	594	330	160	46	25	393	98	36	97	199	1338	1078	114	2	<0.001	23	<0.1	E	
19	Buckingham Canal X Otteri Nullah Confluence (GMR Vasavi Industries)	10051	Nil	7.4	2531	33	0.8	0.46	227	886	44	<1	420	447	160	26	14	326	84	28	114	187	1504	1261	76	3	<0.001	24	<0.1	E	
20	Tidal Park	10052																													
21	Mylapore	10053																													
22	Ice House	10054	Nil	7.0	1876	29	1.17	0.25	430	1871	47	<1	289	318	152	21	11	224	44	28	128	117	1233	995	103	3	<0.001	1.5	<0.1	E	
23	Usman Road	10055	Nil	7.1	1288	13	<1	<0.05	212	595	15	<1	194	185	60	16	7	256	45	35	96	17	965	768	28	2	<0.001	4	<0.1	E	
24	Golf Course	10056	2.0	7.2	1662	25	1.2	0.39	296	1236	13	<1	333	253	108	20	12	279	79	20	114	117	985	759	38	4	<0.001	1.7	<0.1	E	
25	River Vennar at Thanjavur D/s	10058																													
26	River Cauvery at Bhavani D/s	10064	6.2	8.0	432	1.28	0.15	0.11	78	218	9	14	165	41	15	3	1.02	153	65	45	24	30	300	280	15	0.1	<0.002	7	0.39	B	
27	River Cauvery at Erode U/s	10065	6.0	8.0	443	2	0.17	0.05	55	145	8.2	16	173	43	17	3	1.1	151	52	46	19	31	311	291	14	0.243	<0.002	7	0.39.2	B	
28	River Cauvery at Kumarapalayam U/s	10067	6.3	8.0	389	2	0.18.6	0.39	55	151	6	<1	137	35	14	2.3	1.1	121	42	38	17	26	261	242	11	0.127	<0.002	4.2	0.76.8	B	
29	River Cauvery at Pallipalayam D/s	10070	6.0	8.0	543	1.3	0.37	0.58	146	305	9.4	16	160	64	16	3	1.3	202	84	69	38	46	372	351	17	0.286	<0.002	5	0.52	B	

30	River Cauvery at Karur U/s	10073	6.3	8.0	761	0.97	0.21	0.016	168	393	6.4	22	204	117	21	2.4	1.04	241	84	24	51	44	521	498	15	0.156	<0.002	6	0.93	B
31	River Cauvery at Kumbakonam D/s	10076	No Sampling																											
32	River Cauvery at Mayiladuthurai D/s	10078	6.0	8.0	1179	2.28	0.312	0.015	65	183	5.2	17	179	268	22	3.1	2	24 2	80	106	38	122	772	746	14	0.49	<0.002	2 1	0.069	B
33	River Vaigai at Madurai U/s	10059	6.0	8.0	798	2.41	0.294	0.087	2	4	0.266	10	37	139	22	4.4	3	19 3	44	18	48	26	556	546	6	4.18	0.018	13	0.38	A
34	River Vaigai at Madurai D/s	10060	6.0	7.4	1079	3	0.318	0.133	2	4	0.209	31	36	180	27	6	4	19 0	43	20	60	29	688	677	6	0.25	0.032	12	0.321	A
35	River Tamirabarani at Tirunelveli D/s	10062	6.4	7.0	140	3	0.174	0.115	54	136	5	<1	37	23	33	0.992	0.28	39	12	3	13	8.4	86	79	8	0.588	<0.002	2	<0.01	B

*CPCB-GEMS / MINARS Water quality criteria

A - Drinking Water Source without conventional treatment but after disinfection **B** - Outdoor bathing (organised)

C - Drinking water source after conventional treatment and disinfection **D**-Propagation of wild life and fisheries

E -Irrigation, Industrial cooling,controlled waste disposal

DBU Class-Designated BestUse mg/L-milligram per liter MPN-Most Probable Number

Annexure - 14 continued
STATUS OF SEWAGE TREATMENT PLANT - TREATED OUTLET WATER UNDER NATIONAL RIVER CONSERVATION PROGRAMME (NRCP) FOR THE YEAR APRIL 2020 TO MARCH 2021

S. No	Name of the Sewage Treatment Plant	Station Code	pH	BOD at 27 C mg/L 27	Conductivity mhos/cm	Total coliform MPN/100 ml	Fecal coliform MPN/100 ml	COD mg/L	Total Suspended Solids mg/L	Ammonia-N mg/L	Total Phosphate mg/L
1	Nesapakkam (Zone-IV)	20032	8.1	9	-	112	14	62	14	5	2
2	Perungudi (Zone-V)	20033	7.0	17	-	221	44	97	57	6	1.1
3	Kodungaiyur (Zone-I)	20034	7.1	9	-	329	47	51	24	8	2.0
4	Koyambedu (Zone-III)	20035	7.5	8	-	249	36	52	14	6.0	1.8
5	Bhavani D/s	20036	No Sampling								
6	Erode - I	20037	4.0	13	-	170	78	44	14	2.5	1.9
7	Erode - II	20038	5.0	8	-	340	136	41	19	4.0	2.0
8	Kumarapalayam	20039	No Sampling								
9	Trichy	20040	No Sampling								
10	Karur	20041	7.4	16	1973	826	388	98	36	7.0	1.2
11	Mayiladuthurai	20042	7.0	16	-	317	122	104	26	3.0	1.0
12	Tiruchirapalli-Srirangam	20043	7.4	26	1374	4400	2667	151	56	4.0	2.2
13	Thanjavur	20044	6.9	44	1348	6433	2570	254	74	8.0	2.0
14	Kumbakonam	20047	7.2	42	1504	5733	2226	214	63	6	2.2
15	Madurai	20046	No Sampling								
16	Tirunelveli	20045	6.7	24	502	24814	7664	106	51	2.3	1.2

Annexure - 15A

ADYAR RIVER WATER QUALITY (UNDER CHENNAI CITY WATER WAYS PROGRAMME) 2020-2021

S. No.	Collecting Place	pH	Conductivity µmhos/cm	TSS mg/L	TDS mg/L	Chlorides mg/L	Ammonical Nitrogen mg/L	BOD mg/L	COD mg/L
Sample Taken from River									
1	Alandur Abraham Bridge	7.57	2813	38	1615	747	4	11	77
2	Thiru Vi Ka Bridge	7.58	12364	53	7996	4294	10	16	101
Sample Taken from Industrial Outfalls									
3	Nesapakkam STP Outlet 23 MLD	8.26	2105	17	1297	330	3	8	48
4	Nesapakkam STP Outlet 40 MLD	8.29	2320	9	1448	415	5	8	49
5	Nesapakkam STP Outlet Extn II 54 MLD	8.58	1964	10	1254	354	6	9	51

Annexure - 15B

BUCKINGHAM CANAL WATER QUALITY (UNDER CHENNAI CITY WATER WAYS PROGRAMME) 2020-2021

S. No.	Collecting Place	pH	Conductivity µmhos/cm	TSS mg/L	TDS mg/L	Chlorides mg/L	Ammonical Nitrogen mg/L	BOD mg/L	COD mg/L
Sample Taken from River									
1	Wallaja Road Bridge	7.23	2852	76	1688	499	13	44	185
2	Lattice Road Bridge	7.42	3449	36	2129	672	10	19	104
Sample Taken from Industrial Outfalls									
3	Kodungaiyur STP Outlet-I	7.72	1867	13	1150	310	12	10	54
4	Kodungaiyur STP Outlet-II	7.61	2234	16	1319	406	10	10	60
5	Kodungaiyur 110 MLD STP Outlet	7.64	2378	19	1438	385	9	10	61

Annexure - 15C

COOUM RIVER WATER QUALITY (UNDER CHENNAI CITY WATER WAYS PROGRAMME) 2020 - 2021

S. No.	Collecting Place	pH	Conductivity µmhos/cm	TSS mg/L	TDS mg/L	Chlorides mg/L	Ammonical Nitrogen mg/L	BOD mg/L	COD mg/L
Sample Taken from River									
1	Thirumangalam Causeway	7.34	1887	146	1147	307	10	32	147
2	Chitra Talkies Bridge	7.58	4068	114	2579	1083	14	49	211
3	Napier Bridge	7.44	6699	118	3970	2123	12	19	105
Sample Taken from Industrial Outfalls									
4	Koyambedu STP Outlet	7.94	2094	16	1274	396	8	8	52
5	Koyambedu STP Outlet Extn.	7.70	2089	15	1269	383	7	9	50
6	Koyambedu 120 MLD STP Station-9	7.74	2002	32	1224	335	5	19	97

Annexure - 15D

OTTERI NALLAH RIVER WATER QUALITY (UNDER CHENNAI CITY WATER WAYS PROGRAMME) 2020 - 2021

S. No.	Collecting Place	pH	Conductivity µmhos/cm	TSS mg/L	TDS mg/L	Chlorides mg/L	Ammonical Nitrogen mg/L	BOD mg/L	COD mg/L
Sample Taken from River									
1	Block 'L' East Road Bridge	7.27	2191	81	1326	350	15	18	119
2	Asprin Garden Bridge	7.49	2230	34	1498	415	11	15	76
3	Vyasarpadi Road Bridge	7.47	1607	68	980	261	8	19	88
Sample Taken from Industrial Outfalls									
4	ICF Shell	-	-	-	-	-	-	-	-

Annexure – 16
Noyyal river water quality monitoring 2020-2021

Sl. No	Month	Date of sample collection	Agraharapudur Bridge (Upstream)	Anaipalayam Bridge	Kasipalayam Bridge	Anaipalayam Kathankanni Bridge (Down Stream)	Orathupalayam dam (Down Stream)
			Total Dissolved Solids (mg/L)				
1	Apr-20	02.04.2020	1860	2080	1920	1840	1688
2		16.04.2020	1780	1832	2000	1852	2248
3	May-20	13.05.2020	2960	2584	2048	1920	2256
4		21.05.2020	3752	2432	1892	1648	2164
5	Jun-20	10.06.2020	1180	2552	1760	1920	1564
6		29.06.2020	2972	1476	1312	1232	1916
7	Jul-20	15.07.2020	1384	1332	1480	1556	1588
8		27.07.2020	1148	1516	1576	1556	1604
9	Aug-20	03.08.2020	1284	1508	1556	1892	1480
10		26.08.2020	1388	1676	1896	1540	2316
11	Sep-20	09.09.2020	1448	1240	1456	1404	1652
12		21.09.2020	1348	1316	2036	2168	2492
13	Oct-20	14.10.2020	*	1580	2112	*	2004
14		27.10.2020	1832	*	1960	*	1836
15	Nov-20	10.11.2020	1504	*	2272	*	2240
16		26.11.2020	1908	*	2220	*	2020
17	Dec-20	07.12.2020	1420	1516	1816	1812	1456
18		24.12.2020	1260	1368	1684	1576	1552
19	Jan-21	11.01.2021	1092	1068	1208	1316	1256
20		21.01.2021	1460	1268	1312	1324	1716
21	Feb-21	10.02.2021	1252	1372	1556	1648	1612
22		24.02.2021	2024	2184	2220	2056	2152
23	Mar-21	25.03.2021	2444	2316	2252	1648	1728
Average			1759	1711	1806	1679	1850

Annexure – 17
Average values Ambient Noise Levels in Chennai City for April 2020-March2021

	Eye Hospital Egmore (S)	Guindy (I)	Pallikaranai (C)	Perambur (C)	Sowcarpet (C)
Avg	61.77	65.9	56.4	56.3	60.3
Max	74.65	85	67	59.6	66.8
Min	49.3	51.3	46.7	48.9	56.1
	T.Nagar (C)	Triplicane (R)	Velachery (R)	Washermenpet (C)	Annanagar (S)
Avg	68.1	62.3	63.1	68.8	64
Max	80.3	76.2	76.62	82.14	77.53
Min	54.2	54.3	55.14	57.5	54.6
Note	S-Sensitive	C-Commercial	R-Residential	I-Industrial	

Annexure -18

Ambient Air Quality in Greater Chennai Corporation during Pre Bhogi & Bhogi 2021

Zone No	Name of the Zone	Station Location	Pollutants concentration in $\mu\text{g}/\text{m}^3$									
			(24 hrs average) 8.00 am to 8.00 am									
			SO ₂		NO ₂		PM ₁₀		PM _{2.5}		Pre-Bhogi AQI	Bhogi AQI
			Pre Bhogi	Bhogi	Pre Bhogi	Bhogi	Pre Bhogi	Bhogi	Pre Bhogi	Bhogi		
10.01.2021 to 11.01.2021	12.01.2021 to 13.01.2021	10.01.2021 to 11.01.2021	12.01.2021 to 13.01.2021	10.01.2021 to 11.01.2021	12.01.2021 to 13.01.2021	10.01.2021 to 11.01.2021	12.01.2021 to 13.01.2021	10.01.2021 to 11.01.2021	12.01.2021 to 13.01.2021			
I	Thiruvotriyur	Kathivakkam	11	13	13	14	57	118	31	77	57	156
II	Manali	Manali	13	15	14	16	67	136	36	85	67	184
III	Madhavaram	Thillai Nagar	12	14	15	16	85	135	49	83	85	175
IV	Tondiarpet	Tondiarpet	9	12	21	24	116	256	44	102	111	240
V	Royapuram	Royapuram	10	11	18	20	81	103	40	64	81	113
VI	Thiru.Vi.Ka. Nagar	Thiru.Vi.Ka. Nagar	13	14	14	15	71	173	41	96	71	221
VII	Ambattur	Ambattur	12	14	15	16	87	183	53	102	89	241
VIII	Anna Nagar	Anna Nagar	8	10	20	21	73	129	35	52	73	119
IX	Teynampet	T. Nagar	10	12	21	26	43	147	25	85	43	183
X	Kodambakkam	Kodambakkam	7	9	17	19	78	135	39	84	78	180
XI	Valasaravakkam	Zonal office	14	15	23	28	65	163	32	81	65	170
XII	Alandur	Zonal office,	12	13	22	25	64	120	25	80	64	167
XII	Adyar	Besant Nagar	9	11	20	22	42	139	19	72	42	140
XIV	Perungudi	Perungudi	11	14	20	27	45	142	23	73	45	143
XV	Shozhinganallur	Shozhinganallur	10	16	24	27	40	124	22	89	40	197
Standards values for 24hrs			80		80		100		60			

Note: 0-50 - Good: 51-100 - Satisfactory: 101-200 - Moderately: 201-300 - Poor: 301-400 - Very Poor:

Annual Accounts

N. MUTHUKUMARASWAAMY & CO
CHARTERED ACCOUNTANTS
CHENNAI – MADURAI

125/, 1st Floor, Gill Nagar Extension
Choolaimedu, Chennai – 600094
Ph : 044-42073504
E-Mail : nmcchennai1@gmail.com
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**AUDITOR'S REPORT TO THE MEMBERS OF THE
TAMILNADU POLLUTION CONTROL BOARD
FOR THE YEAR ENDED 31st MARCH 2021**

We have audited the attached Balance Sheet of Tamil Nadu Pollution Control Board as at March 31, 2021 and also the Receipts and payments account and Income and Expenditure Account for the year ended on that date annexed thereto.

These financial statements are the responsibility of the entity's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the auditing standards generally accepted in India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the management as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

We report that:

1. We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit.
2. In our opinion proper books of account as required by law have been kept by the Board in so far as it appears from our examination of those books.
3. The attached Balance Sheet, Receipts and Payments account and Income and Expenditure account which are set out as provided in Rule 36 of the Tamil Nadu Water (Prevention and Control of Pollution) Rules, 1983 and dealt with by this report, are in agreement with the books of account.

4. In our opinion and to the best of information and according to the explanations given to us, the accounts read with the schedules thereto and the notes thereon attached hereto are subject to the following:

- a. Refer point no. II (c) of the notes to accounts with respect to Internal Audit and Internal Control. The Internal Audit wing is not commensurate with the size and nature of this organization. The Internal Audit wing has not furnished the report for the year under audit.
- b. Refer point no II (e) of the notes to accounts with respect to Land advance of Rs.4.67 crores requires adjustment.
- c. Refer point no. II (f) of the notes to accounts with respect to Advance to suppliers for purchase of fixed assets and other expenditure for an amount of Rs.33.92 crores requires adjustment in the books of accounts.
- d. Refer point no II (g) of the notes to accounts with respect to non recoverability of cess amounting to Rs.696.65 crores due from Thermal Stations and local bodies Rs.154.34 Crores.
- e. Refer point No.III- Others (a) of the notes to accounts with respect to funds released to various pollution related projects: Completion / Utilization Certificate may have to be obtained from concerned authorities.
- f. The entity follows cash basis of accounting for Consent Fees. However, Consent Fees received in advance as on 31-03-2021 for Rs171.41 crore has not been treated as income.

Give the information required by the Tamil Nadu Water (Prevention and Control of Pollution) Rules 1983, in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India:

- a) In the case of Balance Sheet, of the State of affairs of the Board as at March 31st 2021
- b) In the case of the Receipts and Payments account, of the total receipts and payments of the Board for the year ended 31 March 2021 and
- c) In the case of the Income and Expenditure account, of the excess of Income over Expenditure for the year ended 31 March 2021.

Date: 31/12/2021
Place: Chennai

For N.Muthukumaraswaamy & Co.,
Chartered Accountants [FR.NO : 012039 S]

UDIN:22209125AAAAAJ5258

Na.Muthukumar, Partner [M.No. 209125]

TAMIL NADU POLLUTION CONTROL BOARD, CHENNAI - 600 032

Receipts and Payments for the year ended 31 March 2021

See Rules 36 of Tamil Nadu Water (Prevention and control of Pollution) rules 1983.

PREVIOUS YEAR	RECEIPTS	TOTAL OF SUB HEAD	TOTAL OF MAJOR HEADS	PREVIOUS YEAR	PAYMENTS	TOTAL OF SUB HEAD	TOTAL OF MAJOR HEADS
Rs. Ps.	Rs. Ps.	Rs. Ps.	Rs. Ps.	Rs. Ps.	Rs. Ps.	Rs. Ps.	Rs. Ps.
485445055.28	A. OPENING BALANCE	283492021.81		45070800.00	A. CAPITAL EXPENDITURE	5192796.00	
-	a. Bank	22140.00		3230234.00	a. Assets - Land and Building	68533950.00	
503132363.00	b. Cash	633783938.00	917298099.81	-	b. Laboratory Equipment	-	
	c. Bank (Court Deposit)			953665.00	c. Vehicles	1533834.00	
	B. GRANTS RECEIVED			3810888.00	d. Furniture	1901183.00	
-	a. From Government			120,000.00	e. Office Appliance	-	
-	b. From other Agencies			1629580.00	f. Library Books	572806.00	
-	c. Schemes				g. Electrical Installation	-	
	C. FEES				h. Computer	1086310.00	78820879.00
	a. Consultant Regn. Fees				i. Software		
	b. Cost of Application				B. REVENUE EXPENDITURE		
	c. Consent Fees	1495963815.64		500244399.00	A. ADMINISTRATIVE	459040436.00	
1394966323.60	d. Cess Collection	302195.00	1496266010.64	246270765.00	a. Salaries	43364567.00	
1209718.00	e. Fees for Haz. Waste			14959392.00	b. Pension & Gratuity	414851.00	
	D. Services & Rental Charges			682958.00	c. Surrender Leave Salary	584250.00	
142287293.00	(Lab Analysis Charges Sch-A)			2494537.00	d. Bonus	1968723.00	505372827.00
	E. INTEREST ON INVESTMENT				e. Medical Expenses		
539352216.00					B. BOARD LABORATORY	1703264.00	
	F. MISCELLANEOUS				a. Running Expenses of Lab.	4875291.00	6578555.00
16843183.04	a. Others (Schedule-B)	17718031.00	17718031.00	1795862.00	b. Lab. Chemicals etc.,		
	b. Cess Re-imburement			980137.00	C. RUNNING & MAINT. OF VEHICLE		30550090.00
3083236151.92	C/o		4041321732.45	26426649.00			
					C/o		621322351.00

TAMIL NADU POLLUTION CONTROL BOARD, CHENNAI - 600 032

Receipts and Payments for the year ended 31 March 2021

See Rules 36 of Tamil Nadu Water (Prevention and control of Pollution) rules 1983.

PREVIOUS YEAR	RECEIPTS	TOTAL OF SUB HEAD	TOTAL OF MAJOR HEADS	PREVIOUS YEAR	PAYMENTS	TOTAL OF SUB HEAD	TOTAL OF MAJOR HEADS
Rs. Ps.	B/F	Rs. Ps.	Rs. Ps.	Rs. Ps.	B/F	Rs. Ps.	Rs. Ps.
3083236151.92	G. DEPOSITS & ADVANCES	678398.00	4041321732.45	848669866.00	D. MAINTENANCE & REPAIRS	12915226.00	621322351.00
2609071.00	a. Earnest Money Deposit	1599978.00		9737829.00	a. Buildings	52150.00	
414390.00	b. Security Deposit	46331.00		19338.00	b. Furniture & Fixture	9198722.00	
114899.00	c. Advance to Staff (Sch.-C)			5495472.00	c. Scientific instruments	2546290.00	
14359629760.00	d. Short Term Deposit	9669031735.99	9671356442.99	1506907.00	d. Office Appliance	589812.00	
				228472.00	e. Electrical Installation	-	
				520845.00	f. Insurance of Assets	1866470.00	27168670.00
				996825.00	g. Other Assets		
949638086.10	H. OTHERS (Schedule - D)		1283340528.55	198351847.00	E. LAW CHARGES		56451688.00
					F. AUDIT FEES		200000.00
					G. MISCELLANEOUS (Sch-E)		459941350.38
				698433324.21	C. CESS REMITTANCE		
				260591.00	D. ADVANCE (Schedule - F)		5646283.00
				9503043.00	E. DEPOSITS	12038809411.99	
					a. Short Term Deposits	41850963.55	12080660375.54
				11661351846.00	b. Others (Schedule - G)		
				73267053.00	F. TNPCB Emp Pension Trust		
				397000000.00	G. TNPCB Emp EL Encas Trust		
					H CLOSING BALANCE		343807170.00
				283492021.81	a. Bank	481121100.07	
				633783938.00	b. Bank Deposits (Court) Sch-H	919697896.00	
				22140.00	c. Cash	1820.00	1400820816.07
18395642358.02	Total	14996018703.99	18395642358.02	Total	Total	14996018703.99	14996018703.99

Chennai - 600 032
Date: 31/12/2021

Subject to our report of even date & Schedules + Notes attached
for N. Muthukumaraswamy & Co., (FRNo: 0120395)

Chartered Accountants

S.d/-

M. Srinivasa Raghavan, B.Com.,
Financial Adviser

(On leave)

R. Kannan, M.Tech.,
Member Secretary

S.d/-

A. Udhanan, IFS,
Chairman

S.d/-

Na. Muthukumar, B.Com, F.C.A., DISA,
Partner [M.No.209125]

ANNUAL STATEMENT OF ACCOUNT
Income and Expenditure Account for the year ended 31st March 2021.
See Rules 36 of Tamil Nadu Water (Prevention and control of Pollution) rules 1983.

PREVIOUS YEAR Rs. Ps.	EXPENDITURE	TOTAL OF SUB HEAD Rs. Ps.	TOTAL OF MAJOR HEADS Rs. Ps.	PREVIOUS YEAR Rs. Ps.	INCOME	TOTAL OF SUB HEAD Rs. Ps.	TOTAL OF MAJOR HEADS Rs. Ps.	
372427326.00	A. Administrative a. Pay of officers and Pay of Establishment b. Allowance & Honoraria (Schedule-I) c. Contribution to Gratuity & Commu- -tion of Pension, UEL pvt. Affairs d. Surrender Leave Salary	360884446.00	511167588.00	-	A. Grants received a. From Government b. From other Agencies Less: Amount utilised for Capital Expenditure Net Grant available for Revenue Expenditure	-	-	
122964784.00		119020636.00		-		-	-	-
405542329.00		30847655.00		-		-	-	-
127405498.00		414851.00		-		-	-	-
3693425.20	B. Running Expenses of Labs.	3657002.75	31582012.00	2252616511.60	B. Fees (Schedule-L)	-	2278497629.64	
27063043.00	C. Running and Maintenance of Vehicle (Schedule-J)	-	-	-	-	-	-	
40463.00	D. Maintenance and Repairs a. Furniture & Fixtures b. Lab. Equipments & Instruments c. Office Appliances & Others d. Electrical Installation e. Building	57708.00	26325529.00	145576061.00	C. Services & Rental Charges (Schedule-M) D. Miscellaneous Receipts a. Others (Schedule-N) b. Cess Reimbursement	-	134242140.00	
7118668.00		7784753.00		-		-	-	-
2967673.00		4630565.00		-		-	-	-
291978.00		733417.00		-		-	-	-
10568742.00		13119386.00		-		-	-	-
560976.00	E. Fees to Consultants and Specialists	481136.00	55849188.00	796652214.00	E. Interest on Investment	-	850129424.42	
193351847.00	F. Law Charges	-	200000.00	524871.84	F. Prior Period Adj. Account	-	17197020.27	
200000.00	G. Fees for Audit	-	48477092.38	-	-	-	-	
573963743.21	H. Miscellaneous (Schedule-K)	61398563.48	2182202031.72	-	-	-	-	
78938572.00	I. Depreciation	-	-	-	-	-	-	
0.00	J. Prior Period Adj. Account	-	-	-	-	-	-	
1279692528.23	K. Excess of income over Exp. trf to B/S	-	-	-	-	-	-	
3212791596.64	Total	3337640473.33	3212791596.64	Total	Total	3337640473.33	3337640473.33	

Subject to our report of even date & Schedules + Notes attached
for N. Muthukumaraswamy & Co., (FRNo: 012039S)
Chartered Accountants

S.d/-
M. Srinivasa Raghavan, B.Com.,
Financial Adviser

(On leave)
R. Kannan, M.Tech.,
Member Secretary

S.d/-
A. Udhayan, IFS.,
Chairman

S.d/-
Na. Muthukumar, B.Com, F.C.A., DISA.,
Partner [M.No.209125]

FORM - XV

ANNUAL STATEMENT OF ACCOUNTS - FIXED ASSETS AS ON 31st MARCH 2021.
See Rules 36 of Tamil Nadu Water (Prevention and control of Pollution) rules 1983.

Sl. No	Particulars of Assets	Rate of Depreciation	Opening Balance on 01/04/2020		Additions and Adjustment during the year	Total		Depreciation		Closing Balance on 31/03/2021		Cumulative Depreciation on 31/03/2021	
			Rs.	%		Rs.	%	Rs.	%	Rs.	%	Rs.	P.
1	Building	10.00%	185674683.20	10.00%	0.00	185674683.20	185674683.20	18567468.32	10.00%	167107214.88	10.00%	241122712.92	
2	Computer	60.00%	2511985.13	60.00%	4085196.00	6597181.13	3731503.21	56.85%	2865677.92	43.85%	72760526.21		
3	Electrical Installations	15.00%	121746265.68	15.00%	-118412790.00	3333475.68	500021.35	15.00%	2833454.33	15.00%	31414156.46		
4	Furniture & Fixture	10.00%	12186673.31	10.00%	2513426.00	14700099.31	1391059.80	9.46%	13309039.51	9.13%	30542097.03		
5	Lab Equipment	33.33%	51218763.24	33.33%	68533950.00	119752713.24	26578160.15	22.19%	93174553.09	7.78%	301650113.72		
6	Library Books	10.00%	1329530.93	10.00%	0.00	1329530.93	132953.09	10.00%	1196577.84	9.00%	6947310.12		
7	Office Appliance	10.00%	48508571.53	10.00%	2220606.00	50729177.53	4975540.96	9.80%	45753636.57	9.02%	38147590.10		
8	Vehicle	33.33%	11323084.15	33.33%	0.00	11323084.15	3773983.95	33.33%	7549100.20	66.67%	68514767.38		
9	Software Development	60.00%	2553763.00	60.00%	1086310.00	3640073.00	2140638.40	58.80%	1499434.60	41.20%	10567417.40		
	Total		437053320.17		-39973302.00	397080018.17	61791329.23		335288688.94		801666691.34		

Note: In Electrical Installation there was a clerical error in 2019-20 and the sum was overstated & this is rectified now.

Chennai - 600 032

Date: 31/12/2021

Subject to our report of even date & Schedules + Notes attached
for N.Muthukumaraswamy & Co., (FR.NO:012039 S)
Chartered Accountants

S.d/-
M.Srinivasa Raghavan.B.Com.,
Financial Adviser

(On leave)
R. Kannan. M.Tech.,
Member Secretary

S.d/-
A.Udhayan. IFS.,
Chairman

S.d/-
Na.Muthukumar.B.Com, F.C.A., DISA.,
Partner [M.No.209125]

**SCHEDULE FORMING PART OF RECEIPTS AND PAYMENTS ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2021**

RECEIPTS

**SCHEDULE - A
Services & Rental Charges**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Air Ambient Quality Survey	70809490.00	
2	Analysis Charges	48868238.00	
3	Bio Medical Management	221100.00	
4	GEMS / MINARS / NAMP	13474313.00	
	TOTAL	133373141.00	

SCHEDULE - B

MISCELLANEOUS RECEIPTS

SL.NO	DESCRIPTION	Rs.	Ps.
1	Appellate Authority Fees	47500.00	
2	Imprest	177045.00	
3	Interest on Loans & Advance	15704.00	
4	Miscellaneous Income	2977348.00	
5	Prior Period Adjustments	1107745.00	
6	Public Hearing	12491081.00	
7	Recovery of Pension	781784.00	
8	Right to Information Fees	41274.00	
9	Sale of legal Books	78550.00	
	TOTAL	17718031.00	

**SCHEDULE FORMING PART OF RECEIPTS AND PAYMENTS ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2021**

SCHEDULE - C

ADVANCE TO STAFF (Receipts)

SL.NO	DESCRIPTION	Rs.	Ps.
1	Personal Computer Advance		9800.00
2	Tour Advance		36531.00
	TOTAL		46331.00

SCHEDULE - D

ADVANCES AND DEPOSITS

SL.NO	DESCRIPTION	Rs.	Ps.
1	AAQS Fees Advance		161400.00
2	Abatement of Pollution		19240961.00
3	Analysis Fees Advance		1035360.00
4	Cess received in advance		131484.00
5	Consent Fees received in advance		984552804.00
6	Deposit Court - Others		16380499.00
7	Environmental Compensation - Cumulative Prod		227240437.00
8	Flag Day Collection		10000.00
9	NCAP Receipts		30632622.00
10	Rent Advance		57064.00
11	SEIAA/SEAC		3897897.55
	TOTAL		1283340528.55

**SCHEDULE FORMING PART OF RECEIPTS AND PAYMENTS ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2021**

PAYMENT

SCHEDULE - E

MISCELLANEOUS

SL.NO	DESCRIPTION	Rs.	Ps.
1	AAQS Expenses	8414172.00	
2	Advertisement & Publicity	2200103.00	
3	Amount Receivable others	6472344.00	
4	Appellate Authority Expenses	1156342.00	
5	Bank interest and commission	51638.00	
6	Board Meeting Expenses	2062206.00	
7	Consultant Fees	482636.00	
8	Contract Charges / Wages	70676237.00	
9	Contribution to CM Fund (COVID)	200000000.00	
10	Conveyance	181480.00	
11	DEE Legal Samples	1119650.00	
12	Eco Restoration of lakh	90800188.00	
13	Electricity / Water Charges	11334903.48	
14	Entertainment	49939.00	
15	Environment Pavilion Exp	1190428.00	
16	Environmental Study Expenses	4388414.00	
17	Honorium / Sitting Fees	4000.00	
18	Insurance of assets	599963.00	
19	Land Maintenance Expenses	97167.00	
20	Miscellaneous Expenses	1557105.70	
21	Newspaper & periodicals	309391.00	
22	OCMMS Exp	705411.00	
23	Office Expenses	2161700.00	
24	Other Legal Expenses	5000.00	
25	Outstanding Expenses	1296081.00	
26	Petty Cash Expenses	300483.00	
27	Pollution Awareness Expenses	16241832.00	
28	Postage Expenses	2049805.00	
29	Printing and Stationery	5109759.00	
30	Property tax	731692.00	
31	Recruitment Expenses	12558861.00	
32	Rent	5256138.00	
33	Staff Welfare Expenses	3559102.00	
34	TDS-GST	148074.00	
35	Telephone and Telex	3132625.00	
36	Trade Fair	618542.00	
37	Training and Seminar	889895.00	
38	Travelling expenses	2028043.00	
	TOTAL	459941350.18	

**SCHEDULE FORMING PART OF RECEIPTS AND PAYMENTS ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2021**

PAYMENT

SCHEDULE - F

ADVANCE TO STAFF (PAYMENT)

SL.NO	DESCRIPTION	Rs.	Ps.
1	Festival Advance	2092200.00	
2	Handloom Advance	248600.00	
3	Temporary Advance	3305483.00	
	TOTAL	5646283.00	

SCHEDULE - G

DEPOSITS AND ADVANCES (Including NGT based Deposits)

SL.NO	DESCRIPTION	Rs.	Ps.
1	Abatement Receipts	2341912.00	
2	Advance to Suppliers	31829540.00	
3	Earnest Money Deposit	1009832.00	
4	Environment Compensation Fund	5664138.00	
5	Land Advance	215440.00	
6	Security Deposit	790101.55	
	TOTAL	41850963.55	

SCHEDULE - H

BANK DEPOSITS (COURT)

SL.NO	DESCRIPTION	Rs.	Ps.
1	Abatement of Pollution	51136164.00	
2	Bank (Court Deposit- NGT)	538503086.00	
3	Environment Compensation Fund	299425009.00	
4	NCAP	30633637.00	
	TOTAL	919697896.00	

**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH - 2021.**

EXPENDITURE

SCHEDULE - I

ALLOWANCES AND HONORORIA

SL.NO	DESCRIPTION	Rs.	Ps.
1	Allowances		104033252.00
2	Bonus		587250.00
3	Contributory Pension Scheme / FBF		11556948.00
4	Health Insurance		103977.00
5	Medical Reimbursement		818246.00
6	Special Provident Fund-Board's Contribution		160000.00
7	Travelling Expenses		1760963.00
	TOTAL		119020636.00

SCHEDULE - J

RUNNING AND MAINTENANCE OF VEHICLES

SL.NO	DESCRIPTION	Rs.	Ps.
1	Fuel		6495614.00
2	Hire Charges		22368331.00
3	Insurance		890361.00
4	Repairs		1827706.00
	TOTAL		31582012.00

**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2021**

EXPENDITURE

SCHEDULE - K

MISCELLANEOUS

SL.NO	DESCRIPTION	Rs.	Ps.
1	Air Ambient Quality Survey Expenses		8565434.00
2	Advertisement & Publicity		1117913.00
3	Appellate Authority Expenses		4180190.00
4	Bank Charges		51615.20
5	Board Meeting / Other meeting Expenses		1909291.00
6	Contract Charges / Wages		70406819.00
7	Conveyance Expenses		210231.00
8	DEE Legal sample		1119650.00
9	Electricity & Water Charges		11968250.48
10	Entertainment Expenses		61140.00
11	Environment Study Expenses		5155414.00
12	Environmental Pavilion Expenses		1190428.00
13	Honorarium / Sitting Fees		8500.00
14	Insurance of Assets		599963.00
15	Land Maintenance Expenses		97167.00
16	Newspaper and Periodicals		332946.00
17	OCMMS Expenses		3426864.00
18	Office Expenses		3437511.00
19	Other Legal Expenses		71896.00
20	Pollution Awareness Expenses		29028415.00
21	Eco restoration of lake Expenses		90800188.00
22	Postage Expenses		2161802.00
23	Printing & Stationery		5552672.00
24	Property Tax and Rates		731692.00
25	Rent on Buildings		5624003.00
26	Staff Welfare Expenses		3641800.00
27	Sundries		1268851.70
28	Telephone Expenses		17057373.00
29	Trade Fair Expenses		162182.00
30	Training and Seminar Expenses		1855895.00
31	Recruitment expenses		12980996.00
32	Contribution to Chief Minister's Fund		20000000.00
	TOTAL		484777092.38

**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2021**

INCOME

SCHEDULE - L

FEES

SL.NO	DESCRIPTION	Rs.	Ps.
1	Consent Fees	2278497629.64	
2	Consent Forms		-
	TOTAL	2278497629.64	

SCHEDULE - M

SEVICES AND RENTAL CHARGES

SL.NO	DESCRIPTION	Rs.	Ps.
1	Air Ambient Quality Survey	70895190.00	
2	Analysis Charges	49847137.00	
3	NAAQM / NAMP / GEMS	13474313.00	
4	Noise Level Measurement		25500.00
	TOTAL	134242140.00	

SCHEDULE - N

MISCELLANEOUS

SL.NO	DESCRIPTION	Rs.	Ps.
1	Bio-Medical Waste Authorisation Fees	221100.00	
2	Fees for Right to Information	41274.00	
3	Interest on Loans & Advance	831152.00	
4	Miscellaneous Income	3162708.00	
5	Public Hearing	12410191.00	
6	Sale of Books	78550.00	
7	Appellate Authority Fees	47500.00	
8	Recovery of Pension	781784.00	
	TOTAL	17574259.00	

**SCHEDULE FORMING PART OF BALANCE SHEET
AS ON 31st MARCH 2021.**

SCHEDULE - O

EARMARKED FUND

PENSION FUND ACCOUNT

SL.NO	DESCRIPTION	AMOUNT
1	Opening balance as on 01-04-20	837722901.00
	Closing balance as on 31-03-21	837722901.00

EARNED LEAVE ENCASHMENT FUND

	DESCRIPTION	AMOUNT
2	Opening balance as on 01-04-20	471530005.00
	Less: Transferred to TNPCB Employees Earned leave encashment Fund Trust	342900000.00
	Closing balance as on 31-03-21	128630005.00

DEPRECIATION FUND ACCOUNT

	DESCRIPTION	AMOUNT
3	Opening balance as on 01-04-20	1114551476.41
	Add: Interest @ 6%	66873088.58
		1181424564.99
	Add: Depreciation	61398593.48
	Closing balance as on 31-03-21	1242823158.47

**SCHEDULE FORMING PART OF BALANCE SHEET
AS ON 31st MARCH 2021**

LIABILITIES

SCHEDULE - P

OTHER DEPOSITS

SL.NO	DESCRIPTION	Rs.	Ps.
1	Deposit- Court	1014992649.23	
2	Earnest Money Deposit	7506306.00	
3	Flag Day Collection	10000.00	
4	Miscellaneous Deposits	779143.00	
5	Retention Money Deposits	157202.00	
6	Security Deposits	21198517.90	
	TOTAL	1044643818.13	

SCHEDULE - Q

OTHER LIABILITIES

SL.NO	DESCRIPTION	Rs.	Ps.
1	GST - Sales		5446.00
2	GST (TDS)	635186.00	
3	Outstanding Liability	43588133.00	
4	Pay Roll Liabilities	8956266.00	
5	Staff Claim Payable	195898.00	
6	Sundry creditors (Others)	212042.00	
7	Tax Deducted at Source (Others)	6095.00	
8	Tax Deducted at Source (Staffs)	3140137.00	
	TOTAL	56739203.00	

SCHEDULE - R

INCOME RECEIVED IN ADVANCE

SL.NO	DESCRIPTION	Rs.	Ps.
1	AAQS Advance	149800.00	
2	Anylysis charges	867118.00	
3	Cess Fees	13655467.00	
4	Consent Fees	1714173104.50	
	TOTAL	1728845489.50	

**SCHEDULE FORMING PART OF BALANCE SHEET
AS ON 31st MARCH 2021**

ASSETS

SCHEDULE - S

MISCELLANEOUS ADVANCES

SL.NO	DESCRIPTION	Rs.	Ps.
1	Advance to Suppliers	339203101.00	
2	Interest Receivable	899910549.00	
3	Land Advance	46778671.00	
4	NGT - Receivable	1354177.00	
5	Rent Advance	1634273.00	
	TOTAL	1288880771.00	

SCHEDULE - T

ADVANCES TO STAFF

SL.NO	DESCRIPTION	Rs.	Ps.
1	Festival Advance	1202685.00	
2	Handloom Advance	149160.00	
3	House Building Advance	1024080.00	
4	Motor Vehicle Advance	764531.00	
5	Personal Computer Advance	344192.00	
6	Temporary Advance	114176.00	
	TOTAL	3598824.00	

SCHEDULE - U

DEPOSITS

SL.NO	DESCRIPTION	Rs.	Ps.
1	Customs Deposit	295552.00	
2	Electricity Deposit	1488224.00	
3	Gas Deposit (Miscellaneous deposit)	43129.00	
4	Telephone Deposit	1028403.00	
	TOTAL	2855308.00	

Notes Forming Part of the Accounts for the year ended 31st March 2021.

I. Significant Accounting Policies and Convention:

(i) The financial statements have been prepared on the assumption of going concern concept.

(ii) Revenue Recognition: Revenues are recognized in the following manner:

a. Consent Fees:

Consent Fees received relating to the period upto which financial statements are drawn is accounted on cash basis including arrears for the previous period and the amount received for the period beyond the date of Balance Sheet is accounted as "consent fees received in advance" and is carried as liability.

Other Fees, Services Charges, Cess reimbursement and other Income:

On Cash basis.

b. Interest on Investments:

On accrual basis.

c. Revenue on Earmarked Funds:

Revenue accrued on earmarked funds is recognized on accrual basis and transferred to the respective fund accounts.

(iii) **Investments:**

Investments are stated at the carrying cost, in the form of Fixed Deposits with Banks and Financial Institutions..

(iv) **Fixed Assets:** Fixed Assets are stated at written down value.

(v) **Expenses:** On accrual basis.

(vi) **Depreciation:**

Depreciation is calculated on written down value by applying the following rates:

- Building - 10%
- Computer - 60%
- Electrical Installations - 15%
- Furniture and Fixtures - 10%,
- Lab Equipments - 33.33%,
- Library Books - 10%,
- Office Appliances - 10%,
- Vehicles - 33.33%.
- Software Development - 60%

Current Year's total depreciation is Rs.61398593.48 & Prior period=392735.75. In 2019-20 there was clerical error in Electrical Installation to the tune of Rs.125970000, the sum which was overstated in fixed asset is now rectified.

(vii) Stock on Hand: Stock of Lab chemicals, Glassware, Misc. Stores & Filter papers are valued at cost. Cost is arrived under First in First out method.

(viii) Retirement Benefits:

- a) **Gratuity:** Gratuity is administered by a separate Trust managed by the Life Insurance Corporation of India. The contribution made against the fund is charged to revenue.
- b) **Pension:** Till the financial year 2018-19, Contribution to Pension is provided in the accounts as per Actuarial valuation. Fixed Deposits are earmarked in the Books and transferred to separate fund account to meet out the liability.

The Board in its B.P Ms.No.40 dated 13-12-2018 Read: Board Resolution No: 275-3-10 dated 12-12-2018 Resolved for Creation of TNPCB Employees Pension Fund and Earned Leave Encashment Fund operated by Trustees as constituted by the Board for payment of Pension / Family Pension on par with Government Servants for existing Pensioners and for future Pensioners. Further, it was Resolved to utilize the services of SBI Life Insurance Co. Ltd for managing the Funds.

The Board in its B.P. Ms.No:04 dated 03-02-2019 Read: Board Resolution No:276-3-3 dated 25-01-2019 Resolved for formation of Trust Deed and Rules of TNPCB Employees Pension Fund Trust. Accordingly a sum of Rs.397.00 Crore was transferred to TNPCB Employees Pension Fund Trust during 2019-20. However, no provision is made during this current Financial Yer based on the actuarial valuation.

- c) **Earned Leave:** Till the financial year 2019-20, Contribution to Earned Leave is provided in the accounts as per Actuarial valuation. Fixed Deposits are earmarked in the Books and transferred to separate fund account to meet out the liability.

During the financial year 2020-21 a sum of Rs.34.29 Crore is transferred to the TNPCB Employees EL Encashment Fund Trust.

II Notes on Accounts:

- a) **Consent Fees** : The Board is collecting consent fees. However necessary information/data is not available to determine whether all industries to which the provisions of the Act apply have paid consent fees. In the absence of such information, income from this head has been recognized on the basis of available records. As such arrears as on date of Balance Sheet have not been quantified.
- b) **Cess**: Consequent to implementation of The Goods & Service Tax, 2017 wef 01-07-2017, the water cess is subsumed vide Ministry of Environment Forest & Climate Change, (MoEF & CC) Government of India, New Delhi's Letter No: Q-17015/4/2016-CPW dated 25-05-2017. The Board need not raise demand / collect water cess from industries and local bodies w.e.f 01-07-2017. Out of the Cess collected and remitted to MoEF & CC, i.e., made prior to 01-07-2017, a total sum of Rs.13,27,79,941/- being 80% of reimbursement is due to be released by MoEF & CC.
- c) **Interest accrued** on deposits has been adopted as worked out by Board.
- d) **Internal Audit & Internal Control system in place:**
The Internal Audit for the period under audit is not adequate and commensurate with the nature and size of the Organization. In view of this, the effectiveness of internal control, checks & balances thereof including implementation of Rules and Policies cannot be ascertained. The Internal audit should be conducted regularly and the Internal Audit Report should be furnished each year. Further, the vacancy of the Senior Manager (F&A), which is vacant for more than four years, may have to be filled up
- e) **Fixed Assets:**
The fixed assets have been physically verified by independent Officers of the Board.
- f) **Land Advances:**
This represents amount paid towards the land cost to SIPCOT and others amounting to Rs.4,67,78,671/-
- g) **Advance to suppliers:**
Rs.33,92,03,101/- has been paid as Advance to Suppliers for purchase of assets / Other expenditure and is pending for adjustment

h) Water Cess:

Cess receivable includes disputed amount from the following Thermal stations / Local Bodies.

(Rs. in crores)

i)	Ennore Thermal Power Station.	108.80	
ii)	North Chennai Thermal Power Station	241.72	
iii)	North Chennai Thermal Power Station	0.01	
iv)	Tuticorin Thermal Power Station - II	346.11	696.65
v)	Local bodies		154.34

i) Position under Income Tax Act, 1961:

1. The Board's income has been notified as exempt u/s10(46) for assessment years from 2019-20 to 2023-24 vide GOI Gazette Notification No.58/2018 dated 26-09-2018.
2. The Board has been assessed for the AY 2009-10, 2010-11, 2011-12 and 2012-13 against the NIL income filed by it in response to the notice served u/s 148. The income tax payable with interest as per demand revised u/s154, tax paid thereon and appeal is furnished hereunder :

Assessment year & order date	Original IT demand	Revised IT after rectification u/s154	Amount remitted till date	Appeal filed on
2011-12 Dt.25-03-15	79,81,61,770 80,000	41,77,67,094 80,000	10,00,00,000 plus TDS of 1,20,13,110	28-10-15
2009-10 Dt.31-03-16	16,18,50,415	13,85,99,044	2,07,89,857	28-04-16
2010-11 Dt.31-03-16	58,38,11,570	54,55,28,843	8,18,29,326	28-04-16
2012-13 Dt.31-03-16	30,36,35,459	25,27,61,641	3,79,14,246	28-04-16
Refund of TDS Adjusted		09-03-18 26-03-18	9,720 14,250	
Amount Remitted to ACIT Chennai on 20-03-2018 as per Court Direction.			20,00,000	
Amount Remitted to ACIT Chennai on 03-05-2018 as per Court Direction			20,00,000	
TDS Adjustment by TANGEDCO:		2017-18 2018-19	12,035 8,500	
TDS Adjustment by Canara Bank		2018-19	69,44,324 5,49,265	
TDS Adjustment by Power Finance				
Total	184,75,39,214	135,47,36,622	26,40,84,633	

The Appeals filed with CIT (A) Chennai were dismissed in December 2017 and subsequently second level appeal with ITAT was filed on 28-02-2018. All the 5 appeals are partly allowed for statistical purposes by ITAT and Ordered vide Tribunal order dated 11-11-2019 as "In the interest of the natural justice, the issues in the appeals of the Assesee are restored to the file of the Assessing Office for re-adjudication after considering the directions issued by the Hon'ble Jurisdictional High Court in the W.P. No: 6281 of 2019 filed by TNPCB"

j) Project Study Receivable & Amount receivable (Others):

Rs.16,30,845/- has been paid to various agencies for conducting studies on environment issues. These sums were proposed to be collected from the industries to which the issues related to. However these sums remain to be collected till date.

In the year 2018-19 Rs.20,30,00,000/- has been paid for Eco restoration, protection and conservation work in Pallikaranai Marshland vide GO (Ms) No: 99 E&F (FR.5) Department dated 17-07-2018 is receivable from Principle Chief Conservator of Forest.

k) Contingent Liability:

A sum of Rs. 7,63,25,790/- as quarterly interest is payable upto 31.03.2013 as per G.O. (Ms).No. 209 Environment and Forests (EC-1) Department dated 31.12.2011. The Board has written to the Government for waiver of interest @ 12.00 % & penal interest @ 2.50% in respect of Noyyal.

l) Previous year figures are regrouped and reclassified wherever considered necessary.

m) Position on balance outstanding in Ways & Means advance Payable / Receivable:

The sum of Rs.75.00 crores was received on 31.12.2011 and was disbursed to Noyyal River Acyacutdars Protection Association (NRAPA) Account on 23.01.2012. As per the terms and conditions of the G.O the Board remitted Rs.15.00 crores to the Govt., as part refund on 22.10.2012. On 01.11.2012 the Hon'ble High Court of Madras quashed the G.O. (Ms).No. 209 Environment and Forests (EC-1) Department dated 31.12.2011 and directed the beneficiaries to refund the sum. Consequent to this the balance sum of Rs.50.90 crores in the Account of NRAPA was remitted to Board. The Board has remitted the balance sum Rs.60.00 crores to the Govt.,. A balance of Rs.24.07 crores is due from NRAPA.

III. Others:

(a) Based on the various Government Orders, funds were released for various projects. In this connection, the Completion Certificate / Utilization Certificate have to be obtained in respect of :

Eco Restoration Projects in Perundurai Taluk (Rs.4.90 Crores), Erode District (Rs.2.75 Crores), Amma Eco Park, (Rs.5.50 Crores – Rs.50 Laks each for Chennai, Thanjavur, Trichy, Vellore, Tirunelveli, Tuticorin, Madurai, Salem, Erode, Coimbatore, Tiruppur Corporations) CUBE-IIT (Rs.3 Crores). **During 2019-20** : Odathurai Tank (Rs.3.20 Crores), Chittlapakkam Eri (Out of Rs.25.00 Crores, Utilization received for 6.25 Crores Utilization to be obtained for Balance Rs.18.75 Crores), Tree Plantation (Rs.6.80 Crores), Urban Arboretum in Greater Chennai Corporation (Paid to District Forest Officer, Chennai Forest Division) (Rs.1.39 Crores). **During 2020-21** : Senguttai Eri (Rs.3.09 Crores) Erode Dist, Vannankuttai Eri (Rs.2.75 Crores), Erode Dist, Suriyakulam Tank (Rs.3.23 Crores), Arni through MS, Environment Management Agency.

(b) **Legal Fees: Sterlite / Vedantha case** ; Based on the Board's Approval Legal fees was paid. But, still Government Order is awaited for certain huge payments made : Totaling to Rs.19,43,65,000/- (2019-20) Rs.3,81,30,000/- (2020-21).

(c) **Contribution to Chief Minister's Fund for COVID** : Rs. 20 Crores has been contributed.

S.d/-
Financial Adviser

(On leave)
Member Secretary

S.d/-
Chairman

Date: 31/12/2021
Place: Chennai

For N.Muthukumaraswaamy & Co.,
Chartered Accountants
[FR.NO : 012039 S]

S.d/-
Na.Muthukumar,
Partner [M.No. 209125]



தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம்

TAMILNADU POLLUTION CONTROL BOARD

76, Mount Salai, Guindy, Chennai - 600032.