

ANNUAL REPORT & ACCOUNTS 2018 - 2019

BEAT AIR POLLUTION



தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம்
TAMIL NADU POLLUTION CONTROL BOARD

Annual Reports & Accounts

2018 – 2019



Tamil Nadu Pollution Control Board

76, Mount Salai, Guindy, Chennai – 600 032

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CHAPTER – 1

INTRODUCTION

1.1 FORMATION OF TNPCB

Government of Tamil Nadu implemented Water (Prevention and Control of Pollution) Act, 1974 (Central Act 6) in Tamil Nadu on 31.08.1981. Based on the Act, the Government in G.O. No. 340 Health and Family Welfare Department dated 19.02.1982 constituted the Tamil Nadu Prevention and Control of Water Pollution Board on 27.02.1982.

The Government has declared the entire area within the State of Tamil Nadu as Air Pollution Control areas vide G.O.Ms. No.4, Environment Control Department dated 28.09.1983 under Section 19 (1) of the Air (Prevention and Control of Pollution) Act, 1981. Thereafter in the year 1983, the Tamil Nadu Prevention and Control of Water Pollution Board was renamed as “Tamil Nadu Pollution Control Board (TNPCB)”.

1.2 CONSTITUTION OF THE BOARD

According to the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the State Board consists of the following members:

- 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
- such number of officials, not exceeding five, to be nominated by the State Government to represent that Government
- 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
- 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

- two persons to represent the companies or corporations owned, controlled or managed by the State Government, to be nominated by the Government
- 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.

Based on the above, Tamil Nadu Pollution Control Board comprises of

- A full time Chairman
- A full time Member Secretary
- 5 officials to represent the State Government
- 5 persons to represent local authorities
- 3 non-officials to represent the interests of agriculture, fishery or industry or trade
- 2 persons to represent the companies or corporations owned by the State Government.

List of Board Members from 1.04.2018 to 31.03.2019

S. No.	Board Members	Position	From	To
1	Thiru. Md. NASIMUDDIN, I.A.S., Principal Secretary to Government / Chairman (FAC), Tamil Nadu Pollution Control Board, Guindy, Chennai – 600 032.	Chairman	1.4.2018	28.8.2018
2	Thiru. SHAMBHU KALLOLIKAR, I.A.S., Principal Secretary to Government / Chairman (FAC), Tamil Nadu Pollution Control Board, Guindy, Chennai – 600 032.	Chairman	29.8.2018	31.3.2019
3	Thiru. Md. NASIMUDDIN, I.A.S., Principal Secretary to Government / Environment and Forests Department, Fort St. George, Secretariat, Chennai – 600 009.	Member	1.4.2018	28.8.2018
4	Thiru. SHAMBHU KALLOLIKAR, I.A.S., Principal Secretary to Government, Environment and Forests Department, Fort St. George, Secretariat, Chennai – 600 009.	Member	29.8.2018	31.3.2019
5	Thiru. M.A. SIDDIQUE, I.A.S., Principal Secretary to Government (Expenditure), Finance Department, Fort St. George, Secretariat, Chennai – 600 009.	Member	1.4.2018	31.3.2019
6	Thiru. BEELA RAJESH, I.A.S., Commissioner of Directorate of Town and Country Planning, Chengalvarayan Building, 4 th Floor, 807, Anna Salai, Chennai – 600 002.	Member	1.4.2018	27.12.2018

7	Thiru. RAJESH LAKHONI, I.A.S., Commissioner (FAC), Commissioner of Town and Country Planning, Chengalvarayan Building, IV Floor, 807, Anna Salai, Chennai – 600 002.	Member	27.12.2018 A.N	31.3.2019
8	Tmt. SHILPA PRABHAKAR SATISH, I.A.S., The Executive Vice Chairperson, Tamil Nadu Industrial Guidance and Export Promotion Bureau, 19-A,Rukmani Lakshmipathy Salai, Egmore, Chennai -600 008.	Member	1.4.2018	25.5.2018
9	Thiru. M. VELMURUGAN, I.E.S. (Retd.) The Executive Vice Chairman, Tamil Nadu Industrial Guidance and Export Promotion Bureau, 19-A,Rukmani Lakshmipathy Salai, Egmore, Chennai -600 008.	Member	25.5.2018 A.N	4.3.2019
10	Thiru. N. MURUGANANDAM, I.A.S., The Executive Vice Chairperson, Tamil Nadu Industrial Guidance and Export Promotion Bureau, 19-A,Rukmani Lakshmipathy Salai, Egmore, Chennai -600 008.	Member	4.3.2019	31.3.2019
11	Thiru. K. KALIANNAN, M. Tech., Director, Directorate of Industrial Safety and Health, T.S.No.47/1, SIDCO Industrial Estate, Guindy, Chennai – 600 032.	Member	1.4.2018	30.9.2018
12	Thiru. K .MANOHARAN, B. Tech Director, Directorate of Industrial Safety and Health, T.S.No.47/1, SIDCO Industrial Estate, Guindy, Chennai – 600 032.	Member	30.9.2018 A.N	31.3.2019
13	Dr. K. KOLANDASWAMY, M.B.B.S., DPH, DIH, MAE, Director of Public Health and Preventive Medicine, Chennai – 600 006.	Member	1.4.2018	31.3.2019
14	Thiru. D. SEKAR, M. Tech., Member Secretary, Tamilnadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai – 600 032.	Member Convener	1.4.2018	31.3.2019
15	Tmt. MADHUMATHI KUMAR, General Manager (P&D) SIPCOT, 194, Marshall Road, Chennai – 600 008.	Special Invitee	1.4.2018	28.2.2019
16	Thiru. SP. MEYYAPPAN, General Manager (P&D) SIPCOT, 194, Marshall Road, Chennai – 600 008.	Member	1.3.2019	31.3.2019
17	Thiru. K. DAKSHINAMOORTHY, 1/23, Chinnapuliur, Ezhavamalai Post, Bhavani Taluk, Erode 638 316.	Non- Official member	1.4.2018	31.3.2019
18	Thiru. A. ALAGARASAN, B.Sc., 78, Sabapathi Street, Kalarampatti, Erumapalayam Post, Salem 636 115.	Non- Official member	1.4.2018	31.3.2019
19	Thiru N. TAMILMANI, BA., 4/23, Ammapalayam, S. Attiyampatti Post, Mallur via, Salem 636 203	Non- Official member	1.4.2018	31.3.2019

1.3 FUNCTIONS

The main functions of Tamil Nadu Pollution Control Board 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 Board standards for emission of air pollutants into the atmosphere from industrial plants and automobiles or for the discharge of any air pollution 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 Central Pollution Control Board (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
- The Board may establish or recognize laboratory or laboratories to enable the Board 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 the Central Pollution Control Board or the State Government.

CHAPTER – 2

ORGANISATIONAL SET UP

The organization structure of TNPCB is a three-tier system, consisting of a Head Office, Zonal Offices and District Offices (Organization chart of Head office is in – Annexure 1A). The Head-office located at Chennai is headed by the Chairman of the Board. The Member Secretary, who is the Executive head, is vested with powers as defined by the Board. 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 Member Secretary.

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. The Joint Chief Environmental Engineer, Tamil Nadu Pollution Control Board	Jurisdiction Offices, O/o. District Environmental Engineer, Tamil Nadu Pollution Control Board
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 EPIP Building (AO Block) SIPCOT Industrial Complex, Gummdipoondi – 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, Kanchipuram District – 603109
		Thiruvallur Plot No.41, 1 st Street, Judges Colony, Tiruvallur – 602001.

2	<p>Vellore Auxilium College Road, (Opposite to Auxilium College) Gandhi Nagar, Vellore – 632 006.</p>	<p>Dharmapuri Old No.: 64A, New No.: 8, 1st floor, 5thCross, Appavu Nagar, Dharmapuri – 636 701.</p> <p>Hosur Plot No.: 140A, SIPCOT Industrial Complex, Hosur – 635 126.</p> <p>Thiruvannamalai 541/B, Ashok Nagar, Venkikal, Thiruvannamalai District – 606 604.</p> <p>Vellore Auxilium College Road, (Opposite to Auxilium College) Gandhi Nagar, Vellore – 632 006</p> <p>Villupuram District Collectorate Master Plan Complex, Back side of Taluk office, Villupuram – 605 602.</p> <p>Vaniyambadi 392, Plot No.: PP2, SIDCO Industrial Estate, Vaniyambadi – 635 751.</p>
3	<p>Salem No.: 9, 4th Cross Street, Brindhavan Road, Fairlands, Salem – 636 016.</p>	<p>Erode CMP Plot, SIDCO Industrial Estate Chennimalai Road, Erode – 638 001.</p> <p>Karur No.: 26, Ramakrishnapuram West, Karur – 639 001.</p> <p>Kumarapalayam Door No.: 1-8/8, Periyar Nagar Rajam Theatre Road Olapalayam, Kumarapalayam Namakkal District – 638183</p> <p>Namakkal Collectorate Campus, Near Tamil Nadu Civil Supply Corporation, Namakkal – 637 003.</p> <p>Perundurai Plot No.: J-2(W), SIPCOT Industrial Growth Centre, Near SIPCOT Project Office, Perundurai – 638052</p> <p>Salem Siva Tower, Post Box No.: 457, No.: 1/276, Meyyanur Main Road, Salem – 636 004.</p>
4	<p>Coimbatore Plot No.: E-55A, SIDCO Industrial Estate, Pollachi Main Road, Kurchi, Coimbatore – 641 021.</p>	<p>Coimbatore (North) No.: 5, Ramasamy Nagar, Near Fire Service Station, Kavundampalayam, Coimbatore – 641 030.</p> <p>Coimbatore (South) Coimbatore South, Plot No.: E-55A, SIDCO Industrial Estate, Pollachi Main Road, Kurchi, Coimbatore – 641 021.</p> <p>Ooty Additional Collectorate Building, Block-II Finger Post, The Nilgiris – 643005</p> <p>Tiruppur (North) Kumaran Complex, Kumaran Road, Tiruppur – 641 601.</p> <p>Tiruppur (South) 12A, Pollachi By-Pass Road, Palladam, Tiruppur – 641 664.</p>

5	Trichy No.: 25, Developed Plots, Thuvakudy, Trichy – 620 015.	Ariyalur 99-A, Ethiraj Nagar, Railway Station Road, Rajaji Nagar (PO), Ariyalur – 621 713.
		Cuddalore Plot No.: A-3, SIPCOT Industrial Complex, Kudikadu, Cuddalore – 607 005.
		Nagapattinam, No.: 14, Perumal Sannathi street, 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, Opp. 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 Theater, 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.

Apart from this there are two Flying Squads headed by Environmental Engineers and the same are functioning at Erode and Tiruppur. As per G.O. (3D) No.: 10, Environment and Forests (EC.2) Department, dated: 01.03.2011, the Government have accorded permission to Tamil Nadu Pollution Control Board to form the flying squads for two districts at Erode and Tiruppur in order to effectively

inspect and monitor the functioning of Effluent Treatment Plants (ETPs) / Common Effluent Treatment Plants (CETPs) / Zero Liquid Discharge (ZLD) Systems and to take action against the violating industries.

Flying Squads headed by Environmental Engineers, functioning at Erode and Tiruppur are as follows:

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.

In addition to the above offices, Tamil Nadu Pollution Control Board has 16 Laboratories at two levels viz Advanced Environmental Laboratories and District Environmental Laboratories to assist the Board in monitoring the industries.

DETAILS OF STAFF

Tamil Nadu Pollution Control Board is functioning with 998 Sanctioned Posts including Engineers, Scientists, Administration, Accounts and Miscellaneous Staffs.

Staff details as on 31.03.2019 are as follows:

S. No.	Name of the Posts	Sanctioned Posts	Present Strength	Vacant
1	Chairman	1	1	-
2	Member Secretary	1	1	-
3	Engineering Service	265	187	78
4	Engineering Subordinate Service	12	6	6
5	Scientific Service	126	56	70
6	Scientific Subordinate Service	90	63	27
7	General Service	33	21	12
8	General Subordinate Service	378	202	176
9	Miscellaneous Service	11	1	10
10	Basic Service	79	23	56
11	Deputation (Director labs and Financial Advisor)	2	1	1
	Total	998	562	436

The details on staff strength of TNPCB – year wise is provided in Annexure – 1B.

The details of each service are provided in the Annexure – 4.

The details with regard to compassionate ground appointments, promotions, retirements on superannuation and retirements on Voluntary Retirement Scheme (VRS) for the year 2018-2019 are as follows:

- 3 appointments on Compassionate Ground
- 11 Engineers, 54 General Service and General Subordinate Service, 5 Scientific Service and Scientific Sub Ordinate Services have been promoted.
- 36 employees have retired due to Superannuation.
- 4 employees retired under the Voluntary Retirement Scheme (VRS).
- 3 employees have deceased.

PENSIONERS AND FAMILY PENSIONERS DETAILS

S. No.	Period	Pensioners	Family pensioners	Total
1	From 01.04.2018 to 31.03.2019	41	4	45
2	Total as on 31.03.2019	321	67	388

CHAPTER – 3
MEETINGS OF THE BOARD

3.1 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 2018–19, three Board meetings were conducted by the Board. The details are as follows:

S. No.	Board Meeting Number	No. of Subjects placed	Date of Meeting
1	274	36	25.7.2018
2	275	49	6.12.2018
3	276	16	25.1.2019
Total		101	

Major decisions taken by the Board

1. The Board resolved to approve the proposal of presentation of Green Awards to recognized Residential Welfare Associations and Gated Communities of Greater Chennai Corporation as a first phase every year from 2017 – 2018 onwards at a cost of Rs.5 lakhs (Resolution No.: 274-1-14).
2. The Board resolved to approve the proposal of providing LCD projectors to 200 Government Higher Secondary Schools (6 schools in each District) through ELCOT at a tentative cost of Rs.71.22 lakhs from Board's fund (Resolution No.: 274-1-15).
3. The Board resolved to approve the proposal of tree plantation under Urban Forestry Programme in Chennai Sub-Urban area for next 3 years through Forest Department at a cost of Rs.175 lakhs from Board's fund. The project may be implemented preferably in any suitable land belonging to the Government, Local Body or any Government Agency. Besides that, 25000 tree saplings will also be procured and given to the public, free of cost in all the Districts at a cost of Rs.25 lakhs from Board's fund (Resolution No.: 274-1-16).
4. The Board resolved to approve the proposal of providing video conferencing facility between the Board Office and 38 district offices simultaneously with

latest technology and equipments, as recommended by the Committee through ELCOT at a total cost of Rs.2.56 Crores from Board's fund (Resolution No.: 274-1-21).

5. The Board resolved to approve the proposal for construction of office building to be executed through Public Works Department for District Environmental Engineer's Office in SIPCOT Industrial Complex, Plot No.: F.88 (a), S. F. No. 637 / 1A pt, 2A1 pt & 643 / 2 pt, Old Gummidipoondi Village, Gummidipoondi in Thiruvallur District at a cost of Rs.192.50 lakhs from Board's fund (Resolution No.: 274-3-3).
6. The Board resolved to approve the release of Rs.21.00 Crores to the Director of Environment for eco-restoration of Paruthipattu Lake in Avadi as per the G.O. (RT) No. 553, Environment and Forests (EC.1) Department dated 4.9.2018. The Board resolved to ratify the action for having released an amount of Rs.21.00 Crores (Twenty One Crores) to the Director of Environment. The Board resolved to approve the release of Rs.20.30 Crores to the Principal Chief Conservator of Forests & Chief Wildlife Warden for the project of Comprehensive Management Plan of Pallikaranai Marshland (PML) – eco-restoration, protection and conservation works in Pallikaranai marsh lands as per the G.O. (Ms.) No.: 99, E&F Department dated: 17.07.2018 and G.O. (Ms.) No. 29, E&F Department dated: 04.09.2018 (Resolution No.: 275-1-8).
7. The Board resolved to ratify the action for the instructions issued vide B.P. No.: 1, dated 22.01.2019 to all the IETPs Textile Processing units (Bleaching, Dyeing and Printing) and Tannery units which have provided Solar Evaporation Pans for disposal of final RO rejects, shall switch over to Mechanical Evaporator followed by Agitated Thin Film Dryer, irrespective of the quantity of effluent generated (Resolution No.: 276-1-6).
8. The Board resolved to approve the proposal and to recommend to the Government for issue of notification of Rules for appointment of Chairman / Member Secretary for Tamil Nadu Pollution Control Board (Resolution No.: 276-2-1).
9. The Board resolved to ratify the action for having incurred an expenditure of Rs.1079820/- (Rupees Ten Lakhs Seventy Nine Thousand Eight Hundred and

Twenty only) towards advertisement expenses (as per DIPR rate) for creating awareness on the eve of Bhogi Festival 2019 (Resolution No. 276-3-2).

3.2 CONSTITUTION OF VARIOUS COMMITTEES BY THE BOARD

One of the main functions of TNPCB is to issue consent to the industries under Water (Prevention and Control of Pollution) Act, 1974 and 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 of the Board, Tamil Nadu Pollution Control 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:

3.2.1 TECHNICAL SUB-COMMITTEE [TSC]

The Board has constituted a Technical Sub-Committee (TSC) in Head office and 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

3.2.2 CONSENT CLEARANCE COMMITTEE [CCC]

The Board has constituted a Consent Clearance Committee in Head Office and 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

3.2.3 ZONAL LEVEL CONSENT CLEARANCE COMMITTEE [ZLCCC]

The Board has constituted a Zonal Level Consent Clearance Committee for the grant of Consent To Establish (CTE) and Consent To Operate (CTO) to all Red Small, Orange Large and Orange Medium units. The ZLCCC meetings are conducted at the Zonal Offices on a regular basis. 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

3.2.4 DISTRICT LEVEL CONSENT CLEARANCE COMMITTEE [DLCCC]

The Board has constituted a District Level Consent Clearance Committee for the grant of Consent to Establish (CTE) and Consent to Operate (CTO) to all Orange Small category units and to all sizes of Green category units. The DLCCC meetings are conducted at the District Offices on a regular basis. 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

3.2.5 POLLUTION LOAD ASSESSMENT COMMITTEE [PLAC]

Ministry of Environment, Forests and Climate change has notified an amendment in the EIA Notification 2006 vide S.O.3518 (E), dated 23rd November 2016 under Rule 7(ii) - Prior Environmental Clearance (EC) process for Expansion or Modernization or Change of product mix in existing projects.

As per amendment, Rule 7(ii) (C) states that: - “Any change in the product – mix, change in quantities within products or number of products in the same category for which environmental clearance has been granted shall be exempted from the requirement of prior environmental clearance, provided that there is no change in the total capacity sanctioned in prior environmental clearance granted earlier under this notification and there is no increase in pollution load. The project proponent shall follow the procedure for obtaining - No Increase in Pollution Load certificate from the concerned State Pollution Control Board as per the provisions given in the Appendix –XIV”.

“All such units shall apply to State Pollution Control Board along with their last Consent To Operate (CTO) certificate and relevant details, with certification from accredited environmental auditors and reputed institutions empanelled by SPCB / CPCB / Ministry, for obtaining the “No increase in Pollution Control Load” to be examined by Technical Committee constituted by SPCB”.

As per the amended notification dated 23.11.2016 and as per the nomination of experts by the Government of Tamil Nadu, E&F Department, the following Technical Committee was constituted.

TECHNICAL COMMITTEE

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. Srinivasan, 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 2018 – 2019, Pollution Load Assessment Committee (PLAC) has convened two meetings on 22.05.2018 and 23.01.2019, in order to assess the pollution load of 2 industrial units, due to their expansion activity.

3.3 POWER DELEGATION

In order to dispose off the applications made by industries for the issue of Consent / Authorizations / Registration expeditiously, TNPCB has delegated the powers to the officers at Board Level, Zonal level and District level vide B.P. No.: 63 dated 28.11.2017. Various Committees formed by the Board perform their functions as per the powers delegated in the said B.P., 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.	Parti-culars	17-Category	Red-Large	Red-Medium	Red-Small	Orange-Large	Orange-Medium	Green-Large	Orange-Small & All Green
1	Consent to Establish & Expansion	TSC	CCC	CCC	ZLCCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
1 A.	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
3 A.	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
5 A.	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)

S. No.	Particulars	Functions	17 Category (Large & Medium Scale Only)	Red Large	Red Medium	Red Small	Orange Large & Medium	Orange Small & All Green
1	First Time & Sub-sequent H&OW / BMW / SW / E-Waste / C&D Waste Authorization & Amend-ment	Inspecting authority	JCEE (M)	DEE	DEE	Jurisdiction Engineer	Jurisdiction Engineer	Jurisdiction Engineer
		Approving authority	MS	MS	MS	JCEE (M)	JCEE (M)	DEE
		Issuing authority	Sector JCEE	Sector JCEE	Sector JCEE	JCEE (M)	JCEE (M)	DEE
2	Autho-ization & Pass Book for actual users (Under Rule 9 & Rule 13 (2) - Part D Schedule 3 of H&OW Rules 2016)	Inspecting authority	JCEE (M)	DEE	DEE	Jurisdiction Engineer	Jurisdiction Engineer	Jurisdiction Engineer
		Approving authority	MS	MS	MS	MS	MS	MS
		Issuing authority	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE
3	Author-ization & Pass Book for list of commonly recyclable Hazardous Waste as per Schedule IV of H&OW Rules	Inspecting authority	JCEE (M)	DEE	DEE	Jurisdiction Engineer	Jurisdiction Engineer	Jurisdiction Engineer
		Approving authority	MS	MS	MS	MS	MS	MS
		Issuing authority	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE	Sector JCEE
4	H&OW Rules One time Author-ization of Traders for Import - All Category	Inspecting 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 Regulation - All Category	Inspecting authority	Jurisdiction Engineer	Jurisdiction Engineer	Jurisdiction Eng.	Jurisdiction Engineer	Jurisdiction Engineer	Jurisdiction Engineer
		Approving authority	DEE	DEE	DEE	DEE	DEE	DEE
		Issuing authority	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

Note:

1. **Inspecting 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 etc.
3. **Issuing Authority means** - authority issuing Authorization, Registration after getting necessary approval from Approving Authority

During the year 2018-19, the details of various committee meetings conducted and CTE and CTO issued details are as follows:

Committees	Total No. of Meeting held from 1.4.2018 to 31.3.2019	No. of subjects placed in meeting	No. of CTE issued including expansion /extension	No. of CTO issued including CTO expansion and auto renewal	No. of subjects for which additional details called for including / returned and rejected.
Technical Sub Committee	9	62	28	21	13
Consent Clearance Committee	16	243	75	153	15
Zonal Level Consent Clearance Committee	69	1070	269	786	15
District Level Consent Clearance Committee	624	3400	795	2590	15

CHAPTER – 4

ACTIVITIES OF THE BOARD

Tamil Nadu Pollution Control Board is a regulatory body which enforces the following Acts, Rules and Notifications as amended:

- The Water (Prevention and Control of Pollution) Act, 1974,
- The Tamil Nadu Water (Prevention and Control of Pollution) Rules, 1983
- The Water (Prevention and Control of Pollution) Cess Act, 1977,
- The Water (Prevention and Control of Pollution) Cess Rules, 1978
- 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, 2011
 - 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

Note: *The Water (Prevention and Control Pollution) Cess Act, 1977 was abolished on 01.07.2017 under the GST regime in General Budget 2017-18.*

4.1 MONITORING AND ISSUE OF CONSENT TO THE INDUSTRIES

As per the provisions of Section 25(a) of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21(1) 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 onland and also in an air pollution control area of the entire State of Tamil Nadu. Hence industries have to obtain consent of the Board under the above said Acts.

The consent is issued to the industries in two stages.

- 1st stage, 'Consent to Establish' (CTE) is issued depending upon the suitability of the site before the industry takes up the construction activity.
- 2nd stage, 'Consent to Operate' (CTO) is issued, after construction of the unit and before commissioning the industrial unit, only after the compliance of conditions issued in 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 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.

For effective monitoring, industries are categorized as Red, Orange, Green and White according to their pollution potential. Number of industries under the purview of TNPCB – district office wise and year wise are given in Annexure – 2 and Annexure – 3 respectively.

The industries have also been classified in scale of size with Gross Fixed Assets (GFA) more than Rs.10 Crores as Large, more than Rs.5 Crores and upto Rs.10 Crores as Medium and upto Rs.5 Crores as Small scale.

Similarly, inspection is also carried out by the engineers for the large scale red category units once in three months. The medium scale red category units are inspected once in four months and the small scale red category units are inspected once in a year. Similarly, the large and medium scale orange category units are inspected once in six months and the small scale orange category units are

inspected once in two years. The less polluting green category units are inspected once in two years. Sewage / Trade Effluent samples are collected once in a month from the Red-Large category industries, once in three months from the Red-Medium category industries, once in four months from the Orange-Large category industries, once in six months from the Red-Small, Orange-Medium and Orange-Small category industries. The 17 category highly polluting industries are inspected once in a month and the samples are also collected once in a month.

During the year 2018 – 19, the Board has issued 1003 CTE (Consent to Establish) orders and 3555 CTO (Consent to Operate) orders under both the Acts. The details on the issue of consents are given below:

Period	Consent to Establish		Consent to Operate	
	Water Act	Air Act	Water Act	Air Act
Cumulative (Upto 31.3.2018)	21518	21447	45580	42668
During the Year 2018-2019	1003	1003	3555	3555
Total	22521	22450	49135	46223

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

4.1.1 ONLINE CONSENT MANAGEMENT AND MONITORING SYSTEM (OCMMS)

Tamil Nadu Pollution Control Board has provided the facility of Online Consent Management and Monitoring System (OCMMS) from 19.01.2015. Online Consent Management and Monitoring System (OCMMS) is a web based generic application software for automating the work flow associated with consent management and monitoring which is one of the basic functions of the Board. This system allows the industries for online submission of application for Consent to Establish / Consent to Operate / Renewal of Consent, uploading of documents, online payment of consent fees, online submission of clarification and to know the status of application. This system allows to carry out the consent management processes such as scrutiny, raise inspection, raise clarification, submit inspection report, prepare 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 **tnocmms.nic.in**.

4.1.2 AUTO RENEWAL OF CONSENT

Tamil Nadu Pollution Control 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 7 days on receipt of application.

4.2 COMMON EFFLUENT TREATMENT PLANTS (CETPs)

Taking into consideration, the key role played by MSME units and the constraints in complying with pollution control norms individually by these units, the Ministry of Environment, Forest and Climate Change initiated an innovative technical and financial support scheme to ensure their growth in an environmentally compatible manner. The scheme promotes common facilities for treatment of effluents from MSME units located in clusters through financial assistance. Tamil Nadu Pollution Control Board plays a supportive role towards the establishment of Common Effluent Treatment Plants (CETPs) for clusters of small-scale industries in various parts of the State. The Board assists in the technical scrutiny of the proposal plans for the CETPs.

PATTERN OF FINANCIAL ASSISTANCE

Central Assistance (Subsidy)	50% of the total project cost
State Assistance (Subsidy)	25% of the total project cost
Project Proponent's share	25% of the total project cost (Out of the proponent's share, atleast 40% of contribution from the proponent and balance 60% raised through loan from Banks / Financial Institutions)

CETP SCHEMES IN THE STATE

In Tamil Nadu, CETPs schemes are formulated in the following sectors:

Tanneries	13 Schemes
Textile Bleaching & Dyeing Units	30 Schemes

4.2.1 TANNERY UNITS (CETPs)

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.

ZLD Status of the CETPs in Tannery units

Sector	Total number of CETPs	CETPs Location	No. of CETPs implemented ZLD	Proposed for Dilution
Tannery	13	Dindigul	1	-
		Erode	1	-
		Madhavaram	-	1
		Pallavaram	-	1
		Trichy	1	-
		Vellore	8	-
		Total (13)	11	2

List of CETPs in Tannery sector operating with ZLD System

S. No.	Name and address of CETPs	Number of member units	Capacity of the Plant in KLD
1.	M/s. Ambur Tannery Effluent Treatment Co. Ltd., Thuthipet Sector, Ambur, Vellore District.	46	2219
2.	M/s. Ambur Tannery Effluent Treatment Co. Ltd., Maligaithope Sector, Ambur, Vellore District.	12	1100
3.	M/s. Perundurai Leather Industries Eco-Securities (P) Ltd., Perundurai, Erode District.	14	1000
4.	M/s. Ranipet Tannery Effluent Treatment Company Ltd., (RANITEC), Ranipet, Vellore District.	81	4500
5.	M/s. Ranipet Sidco Finished Leather Effluent Treatment Company Ltd., Ranipet, Vellore District.	79	2500
6.	M/s. SIPCOT SIDCO Phase II Entrepreneur Finished Leather Effluent Treatment Company Ltd., Vellore District.	18	1560
7.	M/s. TALCO Pernambut Tannery Effluent Treatment Co. Ltd., Pernambut, Vellore District.	35	891
8.	M/s. TALCO Trichy Tannery Effluent Treatment Company Ltd., Trichy, Trichy District.	5	201.4
9.	M/s. TALCO Dindigul Tanneries Environ Control System Private Ltd., Pallapatty Village, Dindigul Taluk, Dindigul District.	49	2533
10.	M/s. Visharam Tanners Enviro Control Systems Pvt. Ltd., Melvisharam, Vellore District.	26	3400
11.	M/s. Vaniyambadi Tanners Enviro Control System Ltd., (VANITEC), Vaniyambadi, Vellore District.	133	3342
Total		498	23246.4

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

S. No.	Name and address of CETPs	Number of member units	Capacity of the Plant in KLD
1.	M/s. Pallavaram Tanners Industrial Effluent Treatment Company Limited, Pammal-Pallavaram, Kancheepuram District	144	3000
2.	M/s. Madhavaram Leather Manufacturers Facility (P) Limited, H-3, TALCO Industrial Estate, Madhavaram, Chennai-600 060.	14	400
Total		158	3400

4.2.2 TEXTILE BLEACHING AND DYEING INDUSTRIES (CETPs)

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. 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.203.29 Crores as interest free loan to the 18 CETPs in Tiruppur. So far, Rs.199.145 Crores was released in order to modernize / improve the ZLD system.

ZLD Status of CETPs in Textile Bleaching and Dyeing Industries

Sector	Total number of CETPs	Location	ZLD Status		
			Implemented	Under Progress	Works to be commenced
Textile	20	Tiruppur	18	-	-
		Perundurai	1	-	-
		Ayyampettai	-	-	1
		Total (20)	19	-	1

List of CETPs in Textile Bleaching and Dyeing Sector operating with ZLD system

S. No.	Name and address of CETP	Number of member units	Capacity of the Plant in KLD
1.	M/s. Angeripalayam Common Effluent Treatment Plant Limited, S. F. No.: 89, CETP Garden, Kanjampalayam, Pitchampalayam Post, Tiruppur, Tiruppur District – 641603.	75	10000
2.	M/s. Arulpuram Common Effluent Treatment Company Pvt. Ltd., S.F. No.: 133, Kiran Garden, Arulpuram, Tiruppur – 641605.	12	5500
3.	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
4.	M/s. Chinnakarai Common Effluent Treatment Plant Private Limited, S.F. No.: 275/2, Kuppandampalayam, Veerapandi Post, Tiruppur, Tiruppur District – 641 605.	29	8000
5.	M/s. Eastern Common Effluent Treatment Company Pvt. Ltd., S.F. No.: 3/1, 4/2, Kasipalayam, Nallur village, Vijayapuram Post, Tiruppur – 641606.	23	6000
6.	M/s. Kallikadu Common Effluent Treatment Company Pvt. Ltd., No.: 158/5, Kallikadu Thottam, K.V.R. Nagar, Karuvampalayam Post, Tiruppur – 641604.	12	3000
7.	M/s. Karaipudur Common Effluent Treatment Plant Private Limited, 10/1, 13/1, Moolakkattu Thottam, Karaipudur Village, Arulpuram Post, Tiruppur – 641605.	25	4500
8.	M/s. Kasipalayam Common Effluent Treatment Plant Private Limited, S.F. No. 250/1, S. Periyapalayam Post, Tiruppur – 641 607.	12	4400
9.	M/s. Kunnangalpalayam Common Effluent Treatment Plant Limited, S.F. No. 260/3, Veerapandi Post, Tiruppur District – 641 605.	18	5500
10.	M/s. Mannarai Common Effluent Treatment Plant Private Limited, S.F. No. 209/2A, 2B1, 2B2, Mannarai Village, S. Periyapalayam, Tiruppur District – 641 607	18	4200
11.	M/s. Managalam Common Effluent Recycling Technologies India Pvt. Ltd., S.F. No. 507, Vayakadu Thottam, Sultanpet, Mangalam, Tiruppur – 641663.	15	4000
12.	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 District – 641603.	4	2500
13.	M/s. Perundurairi CETP, Textile Sector, P. No.: R-22, 6 th Cross Road, SIGC, SIPCOT, Perundurairi – 638 052, Erode District.	8	4050
14.	M/s. Rayapuram Common Effluent Treatment Company Pvt. Ltd., T.S. No. : 642 etc., Tiruppur Town, Tiruppur Taluk, Tiruppur District.	15	5500
15.	M/s. Sirupooluvapatti Common Effluent Treatment Plant Private Limited, S.F. No.: 632, Aathuvazhi Thottam, Sirupooluvapatti Post, Tiruppur, Tiruppur District – 641 603	19	5000

16.	M/s. S. Periyapalayam Common Effluent Treatment Plant Private Limited, R.S. No.: 224/2, Agrahara Periyapalayam, Perundurai Taluk, Tiruppur-641607.	6	1500
17.	M/s. Tiruppur Murugampalayam Common Effluent Treatment Company Pvt. Ltd., S.F. No.: 214/2, Erankattu Thottam, Murugampalayam, Tiruppur – 641687.	60	11000
18.	M/s. Veerapandi Common Effluent Treatment Plant Private Limited, 548/1, Karuppagoundam Palayam, Cotton Market Post, Tiruppur, Tiruppur District – 641604.	69	12000
19.	M/s. Vettuvapalayam Common Effluent Treatment and Recycling Plant Private limited, 7/110, S.F. No.: 40, Sambavayal Thottam, Vettuvapalayam, Mangalam Village, Tiruppur taluk, Tiruppur District – 641 663	8	1100
Total		437	102250

CETP proposed to provide ZLD

S. No.	Name and address of CETP	Number of member units	Capacity of the Plant in KLD
1.	M/s. Ayyampet – Muthiyalpet Bleaching and Dyeing Effluent Treatment Company Limited, Kancheepuram	62	1500

4.2.3 Status of demolition of unauthorized units due to illegal operation

The Government in E&F Department vide G.O. (Ms) No. 23, Environment and Forests (EC.1) Department, dated: 01.03.2018 constituted a District Coordination Committee 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 located in the State of Tamil Nadu

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

In this regard, 202 numbers of unauthorized units were demolished in the State of Tamil Nadu by the District Coordination Committee during the period 2018 – 2019.

4.3 WASTE MANAGEMENT

4.3.1 SOLID WASTE MANAGEMENT

The Ministry of Environment, Forest and Climate Change, Government of India has notified the Solid Waste Management Rules, 2016. As per the Rules, the role of local body has been specified as per Rule 15 of Solid Waste Management Rules, 2016 and as per Rule 16 of the said Rules, Tamil Nadu Pollution Control Board shall enforce these Rules through local bodies.

There are 15 Corporations, 121 Municipalities and 528 Town Panchayats in the State of Tamil Nadu. As per the annual report for the year 2018 – 19, total quantity of solid wastes generation is 13968 tons / day as reported by the local bodies, out of which 12856 tons / day of solid waste is being collected and 7196 tons / day of solid waste is treated and 5654 tons / day of municipal solid waste is land-filled in the landfill sites located in the State of Tamil Nadu.

In Tamil Nadu, 15 Corporations, 119 Municipalities and 85 Town Panchayats generate more than 5 tons / day of solid wastes and require Authorisation as per the Solid Waste Management Rules, 2016. As of now, TNPCB had issued Authorisation to 15 Corporations, 119 Municipalities and 85 Town Panchayats.

Tamil Nadu Pollution Control Board has issued directions to all the Corporations, Municipalities and Town Panchayats of Tamil Nadu so as to implement segregation, transportation of dry and wet wastes, to set-up decentralized composting / biomethanation plants, to setup Material Recovery Facilities (MRFs) prior to Waste to Energy (WtE) Plants and to encourage co-processing in cement kilns. Also, based on the complaint received, TNPCB had issued directions to Tiruppur Corporation, Kanyakumari Town Panchayat and Avinashi Town Panchayat for disposing the solid wastes in an unauthorized site.

Tamil Nadu Pollution Control Board collects samples of ground water in the vicinity of the dump sites and samples of leachate from the dump sites and monitors ambient air quality in and around the dump sites of Urban Local Bodies periodically.

Training programmes on source segregation and energy from solid wastes were conducted on various occasions in all the districts of Tamil Nadu. Every year TNPCB prepares and submits the consolidated annual report in Form – V to the Central Pollution Control Board.

4.3.2 COMMON SEWAGE TREATMENT PLANTS PROVIDED BY THE LOCAL BODIES:

In Tamil Nadu, total sewage generation is around 5600 MLD and 54 Sewage Treatment Plants (STPs) with a total capacity of 1400 MLD are in operation at all Corporations and selected Municipalities and Town Panchayats. In Tamil Nadu, 54 STPs are under operation, 23 STPs are under construction and 5 STPs are ready for commissioning.

Central Pollution Control Board and Tamil Nadu Pollution Control Board have periodically issued directions to the Urban Local Bodies to set up Sewage Treatment Plants (STPs) of adequate capacity including provision for sewerage system to cover the entire local / urban areas and the treated effluent to comply with the standards in order to prevent deterioration of surface, sub-surface and coastal waters.

The treated sewage, after ensuring that the prescribed standards for core parameters are met, are either used for irrigation or let into water bodies.

As per Hon'ble National Green Tribunal order dated 27.11.2018 in OA 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.

Details of operational Sewage Treatment Plants with sewage generation quantity by the Local Bodies in Tamil Nadu

S. No.	Name of District	Name of STP under Local bodies	Sewage Generation (MLD)	Capacity (MLD)	Status of operation
1.	Ariyalur	Ariyalur Municipality, Ariyalur	0.65	4.16	In Operation
2.		Perambalur Municipality, Perambalur	4.2	4.2	In Operation
3.	Chennai	Kodunkaiyur Plant – I	110	110	In Operation
4.		Kodunkaiyur Plant – II (Zone I)	80	80	In operation
5.		Kodunkaiyur Plant – II (Zone II)	80	80	In operation
6.		Koyambedu Plant – I	60	60	In operation
7.		Koyambedu Plant – II	120	120	In operation
8.		Koyambedu Plant – III	34	34	In Operation
9.		Nesapakkam Plant – I	40	40	In Operation
10.		Nesapakkam Plant – II	54	54	In Operation
11.		Nesapakkam Plant – III	23	23	In Operation
12.	Coimbatore	CBE Corp. STP Ukkadam, Coimbatore South	40	70	In Operation

13.		Ondipudur, Coimbatore	10	60	In operation
14.	Cuddalore	Cuddalore Municipality STP	12.25	12.25	In operation
15.	Dindigul	Dindigul Municipality STP	5	5	In Operation
16.		Kodaikanal Treatment Company Ltd.	0.85	0.85	In Operation
17.	Dharampuri	Dharmapuri Municipality UGSS System	2.5	4.860	In Operation
18.		Hogenekkal UGSS	0.350	0.350	In Operation
19.	Karur	STP, Karur Municipality	12	15	In Operation
20.	Krishnagiri	Krishnagiri Municipality STP	4	9	In Operation
21.	Maraimalai Nagar	Alandur Municipality STP at Perungudi	9.6	12	In Operation
22.		Maraimalai Nagar Municipality	2.2	2.2	In Operation
23.		Mamallapuram Town Panchayat STP	1.92	2.34	In Operation
24.		New Perungudi , CMWSSB STP Phase – II	46	60	In Operation
25.		Perungudi, CMWSSB STP Phase – I	48	54	In Operation
26.		STP, Kancheepuram	14.71	14.71	In Operation
27.	Madurai	Avaniapuram, Madurai Corporation	20	125	In Operation
28.		Sakkimangalam, Madurai Corporation	15	45.7	In Operation
29.	Nagapattinam	Mayiladuthurai STP	6	6	In Operation
30.		Nagapattinam Municipality STP	4	9.63	In operation
31.		Thiruvarur Municipality STP	3	6.92	In Operation
32.	Namakkal	Namakkal Municipality	5	5	In Operation
33.	Pudukkottai	Pudukkottai Municipality STP	10.62	10.62	In Operation
34.	Ramanathapuram	Ramanathapuram Municipality	3.25	7	In Operation
35.	Salem	Vellakuttai STP, Salem Corporation, Salem	2	13	In Operation
36.	Tanjavur	Kumbakonam Municipality	15	15	In Operation
37.		STP for Orathanadu Town Panchayat	1.5	1.5	In Operation
38.		Thanjavur Municipality	28.05	28.05	In Operation
39.	Theni	Bodi Municipal STP	2.5	12.08	In operation
40.		Chinnamanur STP	3.6	3.99	In Operation
41.		Periyakulam Municipality STP	4	5.47	In operation
42.		Theni - Allinagaram Municipality STP	5	12.05	In Operation
43.	Tiruvanna-malai	Tiruvannamalai Municipality STP	2.1	8.7	In Operation
44.	Tiruppur	New Tiruppur Area Development Corporation Ltd.,	7.50	30	In Operation

		Tiruppur Corporation			
45.		Udumelpat Municipality STP	6.75	7.81	In operation
46.	Trichy	Trichy Corporation STP	88.64	55.97	In Operation
47.	Tirunelveli	Tirunelveli City Municipal Corporation STP	24.2	24.2	In Operation
48.	Thoothukudi	Tiruchendur Town Panchayat	1.15	4.39	In Operation
49.	Udhagamandalam	Kandal STP	5	5	In Operation
50.		Minigarden STP	2	2	In Operation
51.	Vellore	Vellore City Corporation STP	6	10.28	In Operation
52.	Villupuram	Villupuram Municipality Zone – I STP	9	9	In Operation
53.		Villupuram Municipality Zone – II STP	3.5	3.5	In Operation
54.	Virudhunagar	Virudhunagar Municipality STP	7.65	7.80	In Operation
Total			1107.24	1407.58	

Status of Sewage Treatment Plants under construction by the Local Bodies in Tamil Nadu

S. No.	Name of District	Name of STP under Local bodies	Capacity (MLD)	Status of operation
1.	Coimbatore	CBE Corp. STP, Nanjundapuram, Uppilpalayam	40	Under Construction
2.		P N Palayam, Coimbatore North	3.53	Under Construction
3.		Pollachi Municipality STP	11.5	Under Construction
4.	Dindigul	STP Palani Municipality	10.75	Under Construction
5.	Erode	Sathyamangalam STP, Unit – II	4	Under Construction
6.	Kanyakumari	Nagercoil Municipality STP, Agastheeswaram Taluk	17.66	Under Construction
7.	Maraimalai Nagar	Common STP, Tambaram Municipality	30	Under Construction
8.		Navalur, CMWSSB STP	6	Under Construction
9.		Sholinganallur, CMWSSB STP	18	Under Construction
10.		STP Town Panchayat, Sriperumbudur,	8.5	Under Construction
11.	Namakkal	Rasipuram STP	6.96	Under Construction
12.	Sivagangai	Sivagangai Municipality	4.92	Under Construction
13.		Karaikudi STP	16	Under Construction
14.	Salem	Jalakandapuram STP, Jalakandapuram, Salem	2.34	Under Construction
15.		Mettur Municipality STP, Near MTPS	0.823	Under Construction
16.	Tanjavur	Vallam Town Panchayat STP, Thanjavur	2.3	Under construction
17.	Tiruvallur	Avadi Municipality STP	36	Under construction
18.		TNHB Colony, Ayapakkam	7	Under Construction

19.		Thiruvottiyur STP	31	Under Construction
20.	Thoothukudi	Alwarthirunagari Town Panchayat STP	1.23	Under Construction
21.		Thoothukudi Municipal Corporation STP	27	Under Construction
22.	Vellore	Arakonam Municipality STP	11.04	Under Construction
23.	Vanniyambadi	Tirupattur Municipality	11.43	Under Construction

Status of Sewage Treatment Plants by the Local Bodies in Tamil Nadu which are ready for commissioning

S. No.	Name of District	Name of STP under Local bodies	Capacity (MLD)	Status of operation
1.	Erode	Peelamedu, Erode City Municipal Corporation	50.55	Ready for commissioning
2.	Salem	Mettur Municipality STP, Salem	5.45	Ready for commissioning
3.	Salem	Mettur Municipality STP, Mettur	0.924	Ready for commissioning
4.	Tiruvallur	Thirumazhisai Town Panchayat	3	Ready for commissioning
5.	Tiruvallur	Tiruvallur Common STP	6.2	Ready for commissioning

4.3.3 CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT

The Ministry of Environment, Forest and Climate Change, Government of India has notified the Construction and Demolition Waste Management Rules, 2016. These Rules are 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, which generates construction and demolition wastes such as building materials, debris and rubble. According to the Rules, the local bodies need to ensure proper management of construction and demolition wastes. State Pollution Control Board is to grant authorization for the waste processing facility and to monitor the implementation of these Rules. So far, no construction and demolition waste processing facility has applied to TNPCB and hence no authorization has been issued. Tamil Nadu Pollution Control Board has issued directions to all the local bodies to identify sites for collection and processing facility for the Construction and Demolition wastes.

4.3.4 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 annual report for the year 2018-19, plastic waste generation in Tamil Nadu is around 401091 tons / annum (1098 tons / day), out of which 90% is collected and segregated by the respective Urban Bodies and the recyclable plastic wastes are sold to the recyclers. Low value plastics are utilized for road laying and the non-recyclable plastic wastes are sent to co-incineration in Cement Plants and the remaining inerts are disposed to landfills.

As per Rule 13 of Plastic Waste Management Rules, 2016, TNPCB has issued Registration to 91 numbers of plastic manufacturing units, 98 numbers of plastic recycling units and 8 numbers of multilayer plastic units. Directions were issued to plastic recycling units who had not obtained Registration as per the said Rules. Also, TNPCB had issued closure direction and disconnection of power supply to 6 fake compostable carry bag units.

Every year, TNPCB prepares and submits the consolidated annual report in Form – VI to the Central Pollution Control Board.

4.3.4.1 “Use and Throwing Plastic” ban in the State of Tamil Nadu

Hon’ble Chief Minister’s announcement

The Hon’ble Chief Minister, Government of Tamil Nadu made an announcement under Rule 110, on the floor of the Assembly on 05.06.2018 stating that ban on manufacture, storage, supply, sale and use of certain ‘use and throwaway plastics’ would take effect from 01.01.2019.

Use and Throwing Plastic Ban Notification

The Government of Tamil Nadu, in exercise of the powers conferred under Section 5 of the Environment (Protection) Act, 1986, notified ban on manufacture, store, supply, transport, sale or distribute of use and throwaway plastics, plastic sheets used for food wrapping, spreading on dining table etc., plastic plates, plastic coated tea cups and plastic tumblers, water pouches and packets, plastic straws,

plastic carry bags and plastic flags irrespective of thickness vide G.O. (Ms.) No. 84, dated 25.06.2018. The said ban came into effect from 01.01.2019.

The detailed list of banned use and throwaway plastic items are as follows:

- 1) Plastic sheet / cling film used for food wrapping
- 2) Plastic sheet used for spreading on dining table
- 3) Plastic Thermocol plates
- 4) Plastic coated paper plates
- 5) Plastic coated paper cups
- 6) Plastic tea cups
- 7) Plastic tumblers
- 8) Thermocol cups
- 9) Plastic carry bags of all size and thickness
- 10) Plastic coated carry bags
- 11) Non-woven Polypropylene carry bags
- 12) Water packets / pouches
- 13) Plastic straws
- 14) Plastic flags

Government Orders for the implementation of the Ban:

For effective implementation of the ban, the following GOs were issued by the Government of Tamil Nadu.

- A ten member Steering Committee under the Chairmanship of the Chief Secretary, Government of Tamil Nadu has been constituted vide G.O. (Ms.) No. 92, dated 05.07.2018 and subsequently meetings were held on 12.07.2018, 07.09.2018 and 05.04.2019.
- Three Regional Coordinators have been appointed vide G.O. (Ms.) No. 82, dated 15.06.2018 for monitoring and successful implementation of the plastic ban.
- Government Order issued vide G.O. (2D) No. 30, dated 05.07.2018 for the sanction of Rs.54 lakhs for holding Regional Workshops to create awareness in all the districts of Tamil Nadu.
- Government Order issued vide G.O. (D) No. 265, dated 20.09.2018 for the implementation of ban on use and throwaway plastics at all Government departments with immediate effect.

- Officials of TNPCB were nominated for assisting Regional Coordinators of plastic ban vide G.O. (D) No. 319, dated 10.11.2018

Awareness initiatives till 31.12.2018 for successful implementation of ban:

Tamil Nadu Pollution Control Board has carried out the following initiatives for effective implementation of ban in the State of Tamil Nadu.

Meetings / Awareness rally / workshops conducted

- Meetings were conducted with the representatives of Shopping Malls, Hotels and Marriage Halls, TASMAC and Bar Owners Association of all the districts for sensitizing on the changeover from banned throwaway plastic items to eco-friendly alternatives.
- Meeting was conducted with representatives from Eco-Clubs, NGC Coordinators and District Coordinators of Tamil Nadu to create awareness among public on the ban on one time use of “use and throwaway plastics” involving NGOs and school students.
- District Environmental Committee meetings and massive awareness rally under the Chairmanship of District Collectors were conducted at all the districts of Tamil Nadu and resolutions were passed to create, one time use and throwaway plastic free district.
- Workshop for alternative eco-products was conducted by the District Administration in various districts.
- An exhibit vehicle was inaugurated by the Hon’ble Chief Minister of Tamil Nadu on 10.12.2018 towards creating awareness among public and school children in all the districts of Tamil Nadu.

Awareness through various media

- A dedicated website (www.plasticpollutionfreetn.org) – logo, mobile app and awareness videos for state-wide plastic ban has been developed by TNPCB in coordination with the regional coordinators.
- Awareness videos (6 nos.), 2D and 3D animation short movies on plastic ban were broadcasted in shopping malls, theatres, etc. to create awareness and the same were also spread through Whatsapp.

- To spread plastic ban awareness massively, TNPCB developed social media platforms like Facebook, Twitter, LinkedIn, Pinterest and Youtube.

Direction to industries and their initiatives

Tamil Nadu Pollution Control Board had directed all the large industries through out the State of Tamil Nadu to comply with the order of the Government on the ban on use of one time use and throwaway plastic items and to create awareness on the ban on use and throwaway plastics in areas adjoining the industry. Further, display boards showing banned items were placed at 45 toll plazas.

Regional Conferences:

Regional Conferences to create awareness among various stake holders was conducted at Coimbatore, Trichy, Madurai, Tirunelveli, Chennai and Salem under the Chairmanship of the Hon'ble Minister for Environment in coordination with the respective Regional Coordinators for creating a Plastic Pollution Free Tamil Nadu.

Awareness Initiatives from 01.01.2019

- Monitoring groups formed by the District Collector is carrying out enforcement of plastic ban notification. Also, certain districts have constituted District Level Monitoring Committee to review the enforcement of ban.
- Meeting was conducted with the officials of Greater Chennai Corporation and Food Safety Department on 30.01.2019. Clarifications were provided on the type of throw away plastics to be seized and requested for effective enforcement.
- Meetings were conducted with the representatives of Eco-Clubs and NGC Coordinators on 14.02.2019.
- 2D and 3D animation short movies along with 6 video clips on plastic ban awareness are being screened in theatres.
- Hon'ble Chief Minister launched "Reverse Vending Buyback Machine" to recycle the PET bottles / cool drink tins etc. and the same was installed in two shopping malls in Chennai. Initiatives are being taken by various industries through CSR for installation in various public places
- Southern Railways and the Airport Authority of India have been reminded vide DO letters dated 22.02.2019 to ensure that the banned items are not used for serving foods and beverages.

- Social media platforms like Facebook (>1,00,000 likes), Twitter (>2,00,000 tweets), Youtube (12000 views), Linkedin (5200 impressions), Pinterest (15,000 monthly viewers) and Instagram (720 likes) continue to spread plastic ban awareness.
- Plastic pollution free website (www.plasticpollutionfreetn.org) was launched during August 2018 to create awareness on the use and throw away plastic ban notification. The website covers various information on banned “use and throw away plastic” items and its eco-friendly alternatives along with details on non-woven bags and compostable plastic carry bags. So far 240000 people had visited the website.

Action taken against manufacturers of banned plastic items:

As per the Notification of G.O. Ms. No. 84, dated 25.06.2018, District Environmental Engineers of TNPCB are responsible to ensure the prevention of manufacture of the plastic items.

Directions issued to the banned plastic industries:

In Tamil Nadu, there are around 1800 plastic industries manufacturing more than 100 varieties / types of plastic products. Consequent to ban notification, Tamil Nadu Pollution Control Board had issued Directions under Section 5 of Environment (Protection) Act, 1986 as amended to 170 numbers of plastic units producing banned ‘use and throwaway plastics’ vide Board Proceeding dated 08.11.2018 so as to stop the activities of manufacture, store, supply, transport, sale or distribution of “use and throwaway plastic items” before 01.01.2019.

After implementation of plastic ban, the said 170 units were inspected and it was observed that 6 units had closed their operation and vacated the premises and 57 units had changed its product for manufacturing plastic products that are exempted from ban and had obtained CTO from TNPCB and the remaining 113 units are not in operation.

Closure direction issued:

The units which are operating illegally are identified during regular inspections and monitoring process and are brought to the knowledge of the Board by way of complaints and other information. As per the inspection report and recommendations from the district officials, TNPCB issues closure direction and disconnection of EB power supply to the violating industries.

In this connection, closure direction and disconnection of power supply were issued to 43 industries involved in the manufacture of banned plastic manufacturing items which include non-woven carry bags, plastic carry bags, water pouches, etc. Of which, TNPCB issued closure order to 31 units and 12 units were closed by the District Co-ordination Committee based on the inspection report furnished by the district officials of TNPCB.

Surprise inspections carried out:

Tamil Nadu Pollution Control Board had requested District Industries Centre (DIC) and Greater Chennai Corporation (GCC) to provide a list of registered tiny and small scale plastic manufacturing industries. On verification, the units which are still under illegal operation will be identified and action will be initiated to close their operation.

In this regard, TNPCB as a special drive, formed a team and carried out surprise inspections at Chennai, Erode, Tiruppur and Karur after obtaining details from Regional District Industries Centre. Based on the inspection carried out at 410 industries, closure direction and disconnection of power supply were issued to 6 not applied / unidentified banned plastic manufacturing units by the District Administration through the District Co-ordination Committee.

Legal issues in implementation of plastic ban

Since the notification for ban, various representations from Association of plastic and other banned plastic units were received for which TNPCB had conducted personal hearing and issued suitable replies. However, more than 150 numbers of cases were filed against the Government's Notification on plastic ban and based on the reply affidavit filed by TNPCB and Environment & Forest Department, all the cases were dismissed by the Hon'ble High Court of Madras in its judgement dated 11.07.2019 upholding the Government's Notification.

4.3.5 HAZARDOUS WASTE MANAGEMENT

The Ministry of Environment, Forest and Climate Change, Government of India has notified the Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016. As per the Rules, hazardous waste means any waste which by reason of characteristics such as physical, chemical, biological, reactive,

toxic, flammable, explosive or corrosive, causes danger or is likely to cause danger to health or environment. The hazardous waste generator shall follow the steps namely prevention, minimization, reuse, recycling, recovery, utilization including co-processing and safe disposal of hazardous wastes. State Pollution Control Board shall grant authorization for handling the hazardous wastes.

Tamil Nadu Pollution Control Board has identified 3492 units generating hazardous wastes and has issued authorization to 3455 units under the Rules in Tamil Nadu. About 18.0 lakhs tons of hazardous waste is generated annually during 2018 – 19, in which 2.07 lakhs tones is landfillable, 15.52 lakhs tones is recyclable which includes wastes utilized as raw material in cement kiln and 0.41 lakhs tones is incinerable which includes wastes utilized as fuel for energy recovery in cement kilns. The Board is taking effective steps in handling and management of hazardous wastes, its treatment and disposal in an environmentally safe manner. In Tamil Nadu, two hazardous waste, Common Treatment Storage and Disposal Facilities (TSDF) has been established and they are in operation.

List of Common TSDF in Tamil Nadu

S. No.	Name and address of the facility	Capacity
1	M/s. Tamilnadu Waste Management Limited, SIPCOT Industrial Complex, Gummidipoondi, Tiruvallur District.	Authorized to handle 100000 TPA for landfill, 1.5 T / hr incineration. 1 st phase of the facility is established in an area of 26 acres. SIPCOT has further allotted 26 acres for construction of landfill facility.
2	M/s. Tamilnadu Waste Management Limited, Unduorumikidakulam village, Tiruchuli Taluk, Virudhunagar District.	Authorized to handle 150000 TPA for landfill. Total land area 80 acres.

The landfill of the TSDF facility located at Gummidipoondi commenced on November 2007 and the incinerator was commissioned on November 2009. So far, 4.24 lakhs tons of hazardous wastes has been landfilled and 0.34 lakh tons of wastes has been incinerated. The TSDF facility located at Virudhunagar was established on December 2016. So far, 0.36 lakh tons of hazardous wastes has been disposed.

4.3.5.1 Pre-processing and utilization of hazardous wastes

Central Pollution Control Board has prepared a document entitled “Guidelines issued by CPCB for co-processing in Cement / Power / Steel Industry”. In this regard, TNPCB will permit 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 in the document. Tamil Nadu Pollution Control Board ensures that the guidelines are complied, in order to gradually reduce the disposal of incinerable and utilizable hazardous wastes namely lime sludge to TSDF.

Tamil Nadu Pollution Control Board has taken efforts to utilize the hazardous waste generated from Common Effluent Treatment Plants (CETPs) of textile processing units as fuel / raw material for co-processing in the cement factories. Board has authorised 11 cement units to process 576872 MTA of utilizable wastes in cement kilns. During the year 2018 – 19, about 2.69 tons of ETP sludge has been disposed to various Cement industries for co-processing. Similarly, TNPCB has taken efforts to utilize the hazardous wastes generated from tannery CETPs for co-processing in the cement factories.

Tamil Nadu Pollution Control Board has issued consent to an Alternate Fuel Resource (AFR) Facility of M/s. Gujarat Enviro Protection and Infrastructure Limited, SIPCOT, Vellore (Consented value 25000 MT / Annum) and M/s. Sandhiya Enviro Tech System, Vikravandi Taluk, Villupuram District (Consented value 416 T / M (4992 T / A)), to procure various hazardous wastes which are having different calorific values and preprocess the hazardous wastes to get uniform quality with suitable calorific value so as to use the same as an alternate fuel / resource for co-processing in cement kiln. The units are authorized to preprocess 29992 MT / Annum of hazardous wastes for utilization in cement kilns.

List of authorized non-ferrous waste, zinc and copper scrap recyclers

S. No.	Name and address of the units
1.	M/s. Green Era Recyclers, 37, Sivanandha Industrial Complex, Dr. M.S. Udaya Murthy Nagar, Thadagam Road, Edayarpalayam, Coimbatore – 641 025.
2.	M/s. Hydromet India Ltd., Vedal Village, Rajakulam PO, Kancheepuram Taluk and District - 631 561
3.	M/s. ICMC Corporation Ltd., S.F. No.: 32/1, 32/3, 32/4, 32/5, Thennalapakkam Village, Tindivanam Taluk, Villupuram District.
4.	M/s. ICMC Corporation Ltd., S.F. No.: 32/1, 32/3, 32/4, 32/5, Thennalapakkam Village, Tindivanam Taluk, Villupuram District.

5.	M/s. Quality Zinc Chem, No.: 231/4, Vichoor Village, Ponneri Taluk, Tiruvallur District
6.	M/s. Sayee Chem Industries, Thokkavadi, Goundempalayam, Thiruchengode Taluk, Namakkal District
7.	M/s. Sylvan Farm Chemicals, S.F. No.: 395/3,395/1A, M Puduppatti East village, Musiri Taluk, Thiruchirapalli District

List of Lead bearing waste including battery waste recyclers

S. No.	Name and address of the units
1.	M/s. Andavar Alloys, S.F. No.: 134/1A, 135/3B, Vadakkan Mundaiyur Village, Kulathur Taluk, Pudukottai District
2.	M/s. GMT Alloys, B25 Sipcot Industrial, S.F. No.: 351, Pappankuppam, Gummdipoondi Taluk, Tiruvallur District.
3.	M/s. Jain Metals Rolling Mills, Plot No.: R1 & R2, SIPCOT Industrial Estate, Gummidipoondi and Taluk, Tiruvallur District
4.	M/s. Jayachandran Alloys Private Limited, S.F. No.: 20/1, Masagoundenchettipalayam Viliage, Sathy Main Road, Ganeshapuram. P.O., Annur Taluk, Coimbatore District – 641107
5.	M/s. POCL Enterprises Limited, G-47 SIDCO Industrial Estate, Kakkalur, Tiruvallur taluk & District.
6.	M/s. POCL Enterprises Limited, S.F. No.: 360, Nennakarai Village, Chengalpattu Taluk, Kancheepuram
7.	M/s. Pandy Oxides and Chemicals Ltd., Plot No.: G17-19, G30-32, SIPCOT Industrial Park, Sriperumbudur PO and Taluk, Kancheepuram District, Pin: 602 105
8.	M/s. Power Tech Industries, S.F. No.: 40, Plot No.: 1-D/2, SIPCOT Industrial Complex, Nathampennai, Pudukottai District
9.	M/s. Prakash Alloys Industries, S.F. No.: 77/5A, 5C, Vadugapatti Village, Illupur Taluk, Pudukottai District – 621 316
10.	M/s. Premier Pigments, S.F. No.: 16, Athipalayam Road, Chinnavedampatti Post, Coimbatore – 641006
11.	M/s. Prems Gold, S.F. No.: 147/11, Melandur Village, Uthukottai Taluk, Thiruvallur District.
12.	M/s. Roshan Metal, S.F. No.: 863/2, Sirupuzalpettai, Gummdipoondi Taluk, Tiruvallur District.
13.	M/s. Shri Sabhari Smelter Pvt. Ltd., No.: 280pt, 281pt, Vichoor Village, Ponneri Taluk, Tiruvallur District.
14.	M/s. Sither Metal Industry, 389/7, WGC Road, Thoothukudi – 628 001
15.	M/s. Southern Power Industries, D.P. No.: 3 – Electrical Industrial Estate, Kakkalur Village, Tiruvallur Taluk & District.
16.	M/s. Sree Sumangala Metals and Industries Pvt. Ltd., Plot No.: B-51/1, SIPCOT Industrial Complex, Gummidipoondi and Taluk, Tiruvallur District.
17.	M/s. Sri Vari Industries, S.F. No.: 259/1 E, F, Kunnathur Village, Kurukkampalayam Road, M.G.C Palayam P.O., Annur Taluk, Coimbatore District – 641107
18.	M/s. Trichy Metal Stores, S.F. No.: 319-4B, 5B, Itchikamalapatty, Kulathru Taluk, Pudukottai District
19.	M/s. Universal Iron Traders, S.F. No.: 223/1B, 2B, Kuppepalayam Village, Annur Taluk, Plot No.: 45, Subaganesh Industrial Estate, Kuppepalayam PO., Coimbatore – 107
20.	M/s. Universal Lead Alloys, S.F. No.: 587, Senganatham Road, Rangapuram Village, Vellore Taluk, Vellore District.
21.	M/s. Valarmathi Alloys, Shed No.: 9 and 10, SIDCO Industrial Estate, Veerapandi Village, Ariyanur Post, Salem District.

List of authorized used oil recyclers

S. No.	Name and address of the units
1	M/s. ARPE Lubricants, S.F. No.: 406, Malumichampatti Village, Plot No.: 94, SIDCO Industrial Estate, Coimbatore - 641021.
2	M/s. Jayam Refineries, Plot No.: F - 13 , SIPCOT Industrial Growth Centre, Perundurai – 638052, Erode District.
3	M/s. Oil Reclamation Plant (TNEB), Naranamalpuram, Sankar Nagar, Tirunelveli District.
4	M/s. Sasi Industries, Balakrishnapuram Village, Dindigul East Taluk, Dindigul District
5	M/s. Atlas Corporation, S.F. No.: 1023P and 202/A1P, Rasathavalasu Village, Kangeyam Taluk, Tiruppur District – 638 111
6	M/s. Jaya Traders, S.F. No.: 36, Seerapalayam Village, Coimbatore (South) Taluk, Coimbatore District
7	M/s. King Industry – Used Oil – RR, Plot No.: 43, Mahia Industrial Estate, Uranganpatti, Madurai – 20
8	M/s. Lakshmi & Co. (Used Oil Recycling), Plot No.: 99, SIDCO Industrial Estate, Ammanur, Arakonam Taluk, Vellore District
9	M/s. Lakshmi Lubricants – Used Oil Division, 117, New Road, Koilpatti Taluk, Kovilpatti – 628 501
10	M/s. M.R. Industries, Plot No.: 73, SIDCO Industrial Estate, Ammanur, Arakonam Taluk, Vellore District
11	M/s. Nagalakshmi Agencies, S.F. No.: 540/1, Saravanampatti Main Road, Vellakinar Post, Coimbatore – 641 029
12	M/s. Priya Petro Products, No.: 123 SIDCO Industrial Estate, Vichoor, Ponneri Taluk, Tiruvallur District
13	M/s. Quality Lube Products Limited, No.: 35A, SIDCO Industrial Estate, Vichoor, Ponneri Taluk, Tiruvallur District
14	M/s. Sai Ram Industries, Plot No.: F10, SIPCOT Industrial Growth Centre, Perundurai Taluk, Erode District
15	M/s. Saizrol Industries, 64, Thannerpandalpalayam Road, Sunnambu Odai, Erode – 638005
16	M/s. Shri Sathya Sai Lubricants, S.F. No.: 86/1F, Kunnathur Village, Annur Taluk, COSMAFAN Foundry Cluster Park-III, Coimbatore – 641 107
17	M/s. Southern Petrocoal, 1/120, A .Katrampatti, T .Pudupatti, Thirumangalam Taluk, Madurai District
18	M/s. Sri Balaaji Industires Unit – II, S.F. No.: 16/4 Part, Sirukalandai Village, Kinathukadavu Taluk, Coimbatore District
19	M/s. Sri Meenakshi Petro Products, 141, Virudunagar Road, Thirumangalam, Madurai – 625708
20	M/s. Sun Reclaimery, Madurai Automobile Co-op Industrial Estate, Kappalur, Madurai – 625 008
21	M/s. Supreme Petro Products (Used Oil), S.F. No.: 225/1A 2J, 225/1A2/C, Eguvarpalayam Village, Gummidipoondi Taluk, Tiruvallur District.
22	M/s. Thirupathi Oil Company (Unit – I), 129/2Part, Plot No.: 7, SIDCO Industrial Estate, Venmaniyathur Village Tindivanam Taluk, Villupuram District
23	M/s. Vinayaga Lubricants, S.F. No. 561/2A,2B, and 562 Part, Plot No. 67, SIDCO Industrial Estate, Athur village, Karur Taluk & District.

List of authorized waste oil recyclers

S. No.	Name and address of the units
1.	M/s. Lakshmi & Co (Waste Oil Recycling), Plot No.: 99, SIDCO Industrial Estate, Ammanur, Arakonam Taluk, Vellore District
2.	M/s. Mega Petro Products, No.: 60, Sidco Industrial Estate Kakkalur, Tiruvallur Taluk & District.
3.	M/s. Priya Petro Products, No.: 123, SIDCO Industrial Estate, Vichoor, Ponneri Taluk, Tiruvallur District
4.	M/s. Quality Lube Products Limited, No.: 35A, SIDCO Industrial Estate Vichoor, Ponneri Taluk, Tiruvallur District
5.	M/s. Supreme Petro Products (Waste Oil), S.F. No.: 225/1AJ, 225/1AK, Eguvarpalayam Village, Gummdipoondi Taluk, Tiruvallur District.
6.	M/s. Trigel Petro Chem. (P) Ltd., 72, Sidco Industrial Estate, Kakkalur, Tiruvallur Taluk & District
7.	M/s. Thirupathi Oil Company (Unit – II), 129/2Part, Plot No.: 7, SIDCO Industrial Estate, Venmaniyathur Village Tindivanam Taluk, Villupuram District

List of Authorised Solvent Recovery Units

S. No.	Name and address of the units
1	M/s. Penta Coat Resins, Kondalkuppam Village, Vannur Taluk, Villupuram District – 605502.
2	M/s. D.V.R. Refiners, Eraiur Village, Vanur Taluk, Villupuram District – 605109
3	M/s. Thirumala Chemicals, Atthiyanthal Village, Tirukoyilur Taluk, Villupuram District
4	M/s. Sri Chementor Pvt. Ltd., Perumbakkam Village, Vanur Taluk, Villupuram – 604304
5	M/s. Atlas Corporation, Rasatha Valasu Village, Kangeyam Taluk, Tiruppur District – 638111.
6	M/s. Avatar Petrochemicals P Limited, S.F. No.: 2321/3, Aundipatti SIDCO Industrial Estate, ThimmarasaackenuVillage, Aundipatti Taluk, Theni District.
7	M/s. Shree Balaji Chem Industries, S.F. No.: 274, Plot No.: 94, 95 SIDCO Industrial Estate, Kakkalur Village, Tiruvallur Taluk and District.
8	M/s. Ozpec Chemical Industrial Pvt. Ltd., S.F. No.: 218/2A6, Varapatti Village & Panchayat, SulerTaluk, Coimbatore
9	M/s. Latha Chemicals, S.F. No.: 407/1, 2, 408/409/1&2, Neervalur Village, Kancheepuram Taluk & District – 631 561
10	M/s. Aiyasha Enterprises, S.F. No.: 222/3 & 4(P) and 214/1(P), Neervalur Village, Kancheepuram Taluk and District – 631 561

Details of authorised quantity of hazardous wastes (MT) for the year 2018-19

Name of the Zonal office	Name of the District office	Total no. of HW generating Industries	No. of Units possessing authorisation	Authorised quantity of hazardous waste (MT)				Total Quantity
				Landfill-able	Incinerable	Recyclable	Utilizable	
Chennai	Chennai	107	107	192.22	77.78	845.63	29	1144.63
	Ambattur	203	195	4449.47	9587.05	5716.42	0	19752.94
	MM Nagar	350	350	5960.865	8326.088	19154.58	42211.9	75653.433
	Sriperumbudur	307	289	19286.812	22067.958	60247.211	0	101601.981
	Tiruvallur	90	87	1944.93	851.08	10183.54	7.94	12987.49
	Gummidipoondi	114	114	116853.186	5196.84	147085.678	595910	865045.704
Tirunelveli	ViruthuNagar	45	45	3157.685	0	455.03	24257	27869.715
	Thoothukudi	48	48	110313.292	4.91	18095.136	37668.42	166081.758
	Tirunelveli	37	37	73.602	18.62	24527.899	1316551.24	1341171.361
	Nagarkoil	21	21	2.58	0	110.7664	0	113.3464
Salem	Salem	105	105	13554.29	2172.85	611.15	1281.81	17620.1
	Erode	250	250	3129.508	0	6501.191	84	9714.699
	Karur	71	71	3576	3	2050.42	48263	53892.42
	Kumarpalayam	117	117	1978.61	225.25	3.33	87.46	2294.65
	Namakkal	15	15	18.33	0	1226.142	0	1244.472
	Perundurai	150	150	2467.882	0	148.54	12228.62	14845.042
Coimbatore	Coimbatore (N)	153	153	1713.692	187.923	4610.192	16616.29	23128.097
	Coimbatore (S)	142	142	2312.123	480.168	40816.723	0	43609.014
	Tirupur North	232	232	161.76	988.86	9971	47220.881	58342.501
	Tirupur South	47	47	219.69	224.00	6640.56	5770.98	12855.23
	Ooty	15	15	3001.2	7.56	16	0	3024.76
Madurai	Sivagangai	22	18	5.47	0	17.673	107.5	130.643
	Madurai	96	96	961.55	781.95	1373.69	0	3117.19
	Ramanathapuram	15	15	0.766	54.88	0	0	55.646
	Theni	15	15	55.5	0	31.377	84	170.877
	Dindigul	42	42	569.7	484.2	1850.88	0	2904.78
Trichy	Trichy	66	66	1614.015	190.44	3058.758	170	5033.213
	Ariyalur	24	23	130	35	385.988	0	550.988
	Pudukottai	41	41	246.1	2543	91.18	0	2880.28
	Thanjavur	30	29	4.25	50.82	139.249	0	194.319
	Nagapatinam	42	42	5213.8	754.37	1.25	0	5969.42
	Cuddalore	54	54	5370.41	4943.272	17997.09	2969.6	31280.372
Vellore	Hosur	144	144	5027.752	3026.002	26199.125	0	34252.879
	Dharmapuri	14	14	0.12	0	49.466	0	49.586
	Tiruvannamalai	26	24	191.42	381.56	947.12	180	1700.1
	Vellore	116	116	28456.745	1232.8533	10497.181	21400	61586.7793
	Vaniyambadi	199	199	3195.58	0	345.4	49688.75	53229.73
	Villupuram	34	34	916	5321.2	64358	0	70595.2
Total		3492	3455	346326.905	70219.4843	486360.5654	2222788.39	3125695.346

**Details of hazardous wastes generated within the State of Tamil Nadu during
the year 2018-2019**

Name of the Zonal office	Name of the District office	Total no. of HW generating Industry	Quantity of hazardous waste generated (MT)				Total Quantity
			Landfillable	Incinerble	Recyclable	Utilizable	
			1	2	3	4	
Chennai	Chennai	107	222.7	17.521	314.5	27.093	581.814
	Ambattur	203	1721.4	7652.98	2575.15	0	11949.53
	MM Nagar	350	2241.8625	2300.2737	4030.2367	1746.03	10318.4029
	Sriperumbudur	307	15568.537	19118.0145	58375.29	0	93061.8415
	Tiruvallur	90	947.17	462.36	6375.65	0.3	7785.48
	Gummidipoondi	114	48142	5079.54	46196.719	595910	695328.259
Tirunelveli	Viruthunagar	45	2953.8	0	265	122582.58	125801.38
	Thoothukudi	48	99281.96	3.93	14476.11	26367.9	140129.9
	Tirunelveli	37	35.728	3.78	885.686	153791.456	154716.65
	Nagarkoil	21	2.58	0	110.7664	0	113.3464
Salem	Salem	105	72.44	0.85	555.24	462.3	1090.83
	Erode	250	1685.022	0	4984.002	0	6669.024
	Karur	71	38.27	0	134.904	371947.547	372120.721
	Kumarapalayam	117	983.767	140.09	0	0	1123.857
	Namakkal	15	6.201	0	562.275	0	568.476
	Perundurai	150	586.735	0	19.85	5004.244	5610.829
Coimbatore	Coimbatore (N)	153	1113.899	131.546	3227.134	9969.774	14442.353
	Coimbatore (S)	142	500.12	112.523	5023.562	0	5636.205
	Tirupur (N)	232	137.49	988	1448.3	4103.84	6677.63
	Tirupur (S)	47	2.46	201.01	5842.12	9599.69	15645.28
	Ooty	15	301.20	7.56	17.60	0	326.360
Madurai	Sivagangai	22	0.421	0	14.43	22.85	37.701
	Madurai	96	832.975	781.95	1370.016	0	2984.941
	Ramanathapuram	15	0.766	51.3	0	0	52.066
	Theni	15	0	0	25.535	92.719	118.254
	Dindigul	42	200.8	148.55	1992.06	0	2341.41
Trichy	Trichy	66	1428.035	107.64	2369.788	139.2	4044.663
	Ariyalur	24	88.68	25.2	368.377	0	482.257
	Pudukottai	41	68.5555	393.63	52.27	0	514.4555
	Thanjavur	30	3.5	83.952	107.72	0	195.172
	Nagapatinam	42	106.614	45.501	4.196	0	156.311
	Cuddalore	54	4900	275.41	6047.85	1532.66	12755.92
Vellore	Hosur	144	5027.752	3026.002	26199.125	0	34252.879
	Dharmapuri	14	0.05	0	37.505	0	37.555
	Tiruvanna-malai	26	79.05	122.88	356.01	160	717.94
	Vellore	116	15069.578	301.2509	4284.07	3502.65	23157.5489
	Vaniyambadi	199	3195.58	0	345.4	49688.75	53229.73
	Villupuram	34	136.02	8.648	2010.5	0	2155.168
Total		3599	207683.7	41591.89	201004.9	1356652	1806932.0

List of authorized co-processors (Cement industries) of hazardous and other wastes

Name and Address of the unit	Quantity co-processed (MT)
M/s. Chettinadu Cement Corporation Ltd., Dindigul District	7943.57
M/s. Tamil Nadu Cement Corporation Ltd., Ariyalur District	0.2
M/s. Chettinad Cement Corporation Pvt Ltd., Ariyalur District	10
M/s. Ultratech Cement Corporation Pvt Ltd., Ariyalur District	21410
M/s. Dalmia Cement Corporation Pvt Ltd., Thamaraikulam, Ariyalur District	27449.06

M/s. Dalmia Cement Corporation Pvt Ltd., Dalmiapuram, Ariyalur District	49638
M/s. Ramco Cement Corporation Pvt Ltd., Alathiyur, Ariyalur District	5174
M/s. Ramco Cement Corporation Pvt Ltd., Ariyalur District	5952.199
M/s. India Cement Corporation Pvt Ltd., Dalavoi, Ariyalur District	1945.14
M/s. Chettinadu Cement Corporation Private Ltd, Karur District	6639.83
M/s. ACC Limited, Coimbatore District	2963.94
Total	129125.939

4.3.5.2 Action taken by TNPCB on safe disposal of Mixed Salt (hazardous wastes) generated from Tannery CETP's ZLD system

Around 62057.629 tons of residual salts generated from the Zero Liquid Discharge system of CETP's of tannery sector are accumulated in the State of Tamil Nadu. CETPs were instructed by TNPCB to take necessary action for the safe and scientific disposal of residual salt stored in the CETP and in their member tannery premises.

Tamil Nadu Pollution Control Board has accorded permission to M/s. Vanitec Limited, Valayampet Sector (CETP) to transport 20 tons of R.O. reject to "Central Salt & Marine Chemicals Research Institute (CSIR-CSMRI), Bhavnagar, Gujarat for research and development activity. Another batch of sample mixed salt of 21 tons from the CETP of Amburtec-Thuthipet Sector was sent to CSIR-CSMRI, Bhavnagar, Gujarat in order to carry out study for purification.

CSIR-CSMCRI, Gujarat conducted study and the purified / recrystallised salt obtained through this study has been given to the Chlor Alkali units, Soda Ash manufacturing units, Pulp and paper industries to analyse the same so as to confirm whether it meets their requirement to use it in their manufacturing process, since salt is one of their major raw materials.

4.3.5.3 Online Hazardous Waste Management Authorization

Tamil Nadu Pollution Control Board has launched online hazardous wastes application receipt and processing module on 01.03.2016. The industries can apply for authorization online and the application will be processed and the authorization will be issued online. This system allows the industry to track the status of their application. So far, 3492 units have applied for authorization online during the period from 1st April 2018 to 31st March 2019 and 3455 authorizations have been issued.

4.3.6 BIOMEDICAL WASTE MANAGEMENT

The Ministry of Environment, Forest and Climate Change, Government of India, in exercise of the powers conferred by Section 6, 8 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), and in supersession of the Bio-Medical Waste Management and Handling) Rules, 1998, has notified the Bio-Medical Waste Management Rules, 2016 as 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 health care facilities.

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. Tamil Nadu Pollution Control Board has so far issued authorization to 10294 Private and Government hospitals (online and offline) 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 autoclave, shredder, incinerator and secured land fill facilities. In Tamil Nadu, there are 11 CBMWTFs, out of which 8 facilities are in operation and three facilities at Coimbatore, Ooty and Ramanathapuram were issued with closure direction by TNPCB for non compliance of consent order conditions and Bio Medical Waste Management Rules, 2016. The biomedical wastes generated from the Health Care Facilities attached to these three facilities which are issued with closure direction are sent to other CBMWTFs for further treatment and disposal.

On an average, 49 tons / day of bio-medical wastes are handled by these facilities. In addition, three common facilities are under establishment in Tiruvallur, Cuddalore and Tiruppur Districts.

District – wise generation of bio-medical wastes

S. No.	District Office	Quantity of generation of bio-medical wastes (kg / day)
1	Ambattur	3831
2	Ariyalur	913.114
3	Chennai	11172
4	Coimbatore North	3117
5	Coimbatore South	49
6	Cuddalore	2412.517
7	Dharmapuri	189
8	Dindigul	1475.533
9	Erode	586.18
10	Gummidipoondi	173.5
11	Hosur	640
12	Karur	315.2
13	Kumarapalayam	477.5
14	Madurai	10
15	Maraimalai Nagar	2555
16	Nagapattinam	882.565
17	Nagercoil	2274
18	Namakkal	518.415
19	Perundurai	492.7
20	Pudukottai	530.505
21	Ramanathapuram	1363.696
22	Salem	27.18
23	Sivagangai	514.865
24	Sriperumbudur	706.4
25	Thanjavur	944
26	Theni	649
27	Tiruvannamalai	1387
28	Thoothukudi	577.23
29	Trichy	1551.207
30	Tirunelveli	2303.225
31	Tiruppur North	746.5
32	Tiruppur South	11
33	Tiruvallur	841
34	Udhagamandalam	182.063
35	Vaniyambadi	437
36	Vellore	4156
37	Villupuram	588
38	Virudhunagar	5
	Total	49605.095

List of common bio-medical waste treatment facilities in Tamil Nadu

S. No.	Name and address of the facility	Regions covered
1	M/s. G. J. Multiclave (India) Pvt. Ltd., Thenmelpakkam, Chengalpattu Taluk, Kancheepuram District.	Part of Chennai, Kancheepuram and Tiruvallur Districts.
2	M/s. Tamilnadu Waste Management Ltd., Kinnar village, Maduranthakam Taluk, Kancheepuram District.	Chennai (North), Part of Kancheepuram District, Tiruvallur District, Cuddalore District and Villupuram District.
3	M/s. Medicare Enviro Systems, Sengipatti, Thanjavur Taluk, Thanjavur District.	Thanjavur District, Thiruvarur District, Trichy District, Nagapattinam District, Karaikal, Pudukottai District, Perambalur District, Ariyalur District and Sivagangai District.

4	M/s. Ken Bio Links Private Limited, Kandipedu, Katpadi Taluk, Vellore District.	Vellore District, Vaniyambadi, Thiruvannamalai District.
5	M/s. Society for Bio Medical Waste Management, Coonoor, The Nilgiris District	Nilgiris District.
6	M/s. Neat and Clean Service Squad, Muthuvayal, Ramanathapuram District.	Ramanathapuram District
7	M/s. Ramky Energy and Environment Ltd., Thangayur, Salem District.	Salem, Namakkal, Erode, Dharmapurai, Krishnagiri and Karur
8	M/s. Tekno Therm Industries, Orattukuppai, Coimbatore District	Coimbatore, Pollachi, Udumalpet, Mettupalayam, Tiruppur and Sathyamangalam.
9	M/s. Kovai Bio Waste Management Pvt. Ltd., Orattukuppai, Coimbatore District.	Coimbatore and Nilgiris.
10	M/s. Ramky Energy and Environment Ltd., Undurmikidakulam, Virudhunagar District.	Madurai District, Virudunagar District, Dindigul District, Theni District and Ramanathapuram District.
11	M/s. Aseptic System Bio Medical Waste Management Co., Pappankulam, Tirunelveli District.	Tirunelveli District, Thoothukudi District and Kanniyakumari District

Online Bio-Medical Waste Management Authorization

Tamil Nadu Pollution Control Board has launched online bio-medical wastes application receipt and processing module on 01.03.2016. The hospitals can apply for authorization online for handling their bio-medical wastes. The application will be processed and authorization will be issued online. This system allows the hospitals to track the status of their application. Upto 31.03.2019, 8333 hospitals have applied for authorization online. These applications were processed and authorizations were issued.

4.3.7 E- WASTE MANAGEMENT

The Ministry of Environment, Forest and Climate Change, Government of India 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). State Pollution Control Board shall grant and renew authorization to the Manufacturers,

Dismantlers, Recyclers and Refurbishers. State Pollution Control Board shall monitor the compliance of the conditions stipulated in the Extended Producer Responsibility (EPR) Authorisation obtained by the Producers of electrical or electronic equipments for channelization of e-waste to ensure environmentally sound management of such wastes. State Pollution Control Board shall conduct random inspection of Dismantlers or Recyclers or Refurbishers and shall maintain online information regarding the authorizations granted, implementation of programmes to encourage environmentally sound recycling and action taken against violations of the Rules.

Tamil Nadu Pollution Control Board is monitoring the compliance of conditions stipulated in the Extended Producer Responsibility (EPR) Authorisation issued to the Producers located in the State of Tamil Nadu. Totally, 68 Producers located in the State of Tamil Nadu have obtained EPR Authorisation from Central Pollution Control Board.

Hon'ble National Green Tribunal's Principal Bench with respect to O.A. No. 512 / 2018 in its order dated 12.02.2019 has adopted action plan submitted by CPCB for management of E-Wastes generated in India.

Hon'ble National Green Tribunal in its order dated 12.02.2019 has further directed for continuous activities proposed in the action plan, the parameters and methodology i.e. execution plans be clearly spelt out and its working must be reviewed atleast once in 3 months.

As per the orders of the Hon'ble National Green Tribunal, TNPCB has carried out inspection of Producers who have obtained EPR Authorisation from CPCB and has furnished verification reports to the CPCB. Tamil Nadu Pollution Control Board is also conducting random inspection of Producers, Dismantlers, Recyclers and Refurbishers and is maintaining online information regarding authorizations granted. Tamil Nadu Pollution Control Board is in the process of carrying out inventorisation of E-wastes in the State of Tamil Nadu through a third party expert institution and is also implementing programmes to encourage environmentally sound recycling and is initiating action against violators of the Rules. As per these Rules, TNPCB is granting and is renewing authorization to the Manufacturers, Dismantlers, Recyclers and Refurbishers.

Tamil Nadu Pollution Control Board has issued authorization to 24 units (22 Dismantlers, 1 Recycler and 1 Refurbisher). As per the annual return for 2018–2019

furnished by the E-waste Dismantlers, Recyclers and Refurbishers, annual E-wastes collected and recycled is reported as 32282.620 Tons.

List of authorized dismantlers located in the State of Tamil Nadu

S. No.	Name and address of the units	Validity of authorisation
1	M/s. Trittech Systems, No.: 26, Arcot Road, Porur, Chennai – 600 116. Mail: tri-abdullah@yahoo.com, Contact: 044 – 42617179, 9003077866	31.03.2023
2	M/s. Aer World Wide, 2B, 2C, 2D, 2E, Elanthanjeri Village, Madhavaram Taluk, Tiruvallur District.	31.03.2023
3	M/s. Green E Waste, No.: 33, Geazon, Aynambakkam Housing Colony, Aynambakkam Village, Ambattur, Chennai – 600 095. Mail: parvez@greenewaste.in Contact: 044-26534690, 7200185121	09.12.2019
4	M/s. Abishek Enterprises, S. F. No.: 2G, 2NP, Ambattur, Chennai – 600 098. Mail: enterprisesabishek@gmail.com Contact: 044-23637878, 9884057878	31.03.2021
5	M/s. JADG India E-Waste Recyclers Pvt. Ltd., No.: 1, Kollur Village, Ponneri Taluk, Tiruvallur District, PIN: 601206. Mail: jadgewast@gmail.com Contact: 044-27925234, 9840969739	16.03.2022
6	M/s. Shri Raam Recycling, 333 to 337 Part, Papankuppam Village, Shed No.: DP-29, Phase IV & V, SIDCO Industrial Estate, Gummidipoondi Taluk, Tiruvallur District. PIN - 601 201. Mail: info@shriraamrecycling.com Contact: 044 – 29020373, 9884499191	06.12.2022
7	M/s. Virogreen India Pvt Ltd, No. 297 / 1B2, Papankuppam Village, SR Kandigai Road, S.R.Kandigai PO, Gummidipoondi Taluk, Tiruvallur District. Pin - 601 201. Mail: muthu@virogreen.in Contact: 044 – 65485915, 9940648444	31.03.2021
8	M/s. Trishyiraya Recycling India Pvt. Ltd, Plot No.: A-7, Phase –I, MEPZ-SEZ, Tambaram, Chennai – 600 045. Mail: naveen.prakash@simsmm.com Contact: 044 -22628067 , 9840897125	31.03.2023
9	M/s. K.S. Traders, Thiruneermalai Village, Alandur Taluk, Kancheepuram District.	26.01.2019
10	M/s. SEZ Recycling, TP – 7, 4th Avenue, Mahindra World City Developers Limited, Industrial Estate, SEZ Area, Thenmelpakkam Village, Chengalpattu Taluk, Kancheepuram District, PIN – 603 209. Mail: akshay@sezrecycling.com Contact: 044 – 25322992, 9790711555	22.11.2022
11	M/s. Leela Traders, Plot No.: C – 15 / 1, CMDA Industrial Complex, Maraimalai Nagar, Kancheepuram District, PIN: 603 209. Mail: v.kumaran@hotmail.com Contact: 9380888811, 044 - 28420404	31.03.2023
12	M/s. Enviro Metals Recyclers Pvt Ltd, S. F. No.: 104 &106, Ezhichur Village, Oragadam, Sriperumbudur Taluk, Kancheepuram District, PIN: 603 204 Mail: ckenviro@ensenviro.com Contact: 044 – 27107223, 9943076126	11.03.2019

13	M/s. Gems Recycling (P) Ltd, R.S. No.: 222/3, 4(P), Neervallur Village, Sriperumbudur Taluk, Kancheepuram District, PIN - 631 561 Mail: conrctt@globalwastemanagement.com mannar@globalwastemanagement.com, Contact: 9380111434	31.03.2022
14	M/s. INAA Enterprises, DP No.: AC 31/24, SIDCO Industrial Estate, Thirumudivakkam Village, Sriperumbudur Taluk, Kancheepuram District. PIN - 600 044. Mail: info@inaaenterprises.com, Contact: 9444446229	15.02.2020
15	M/s. World Scrap Stars Recycling Solutions Pvt Ltd, No.: 3, Golden Star Apartments, 5S Thandalam Village, Sriperumbudur Taluk, Kancheepuram District (Not in Operation for the past one year).	02.03.2020
16	M/s. Victory Recovery & Recycle Tech P Ltd., No.: 672 / 2, Double Dragon Industrial Park, Kannur Village and Post, Kottaiyur Taluk, Tiruvallur District. Mail: jp@victoryrecovery.com Contact: 044 – 27699855, 9551693935	30.08.2022
17	M/s. Southern Alloys, DP No.: S-105 & 106, SIDCO Industrial Estate, Kakallur Village, Tiruvallur Taluk and District, PIN 602 003 Mail: southernalloys@rediffmail.com Contact: 044 – 42118862, 9500038861	06.09.2020
18	M/s. Micro E-Waste Recyclers, S. F. No.: 301 / 3, Varaganeri Village, Trichy East Taluk, Trichy District.	17.08.2022
19	M/s. Green India Recyclers, S. F. No.: 26 / 1B, Kovilpalayam Road, Sulakkal Village, Kinathukadavu Taluk, Coimbatore District. PIN 642 110. Mail: info@greenindiarecyclers.com Phone: 090034 91034	07.12.2022
20	M/s. Green Era Recyclers, 37, Sivanandha Industries Estate, Dr. M. S. Udhayamurthy Nagar, Thadagam Road, Edayarpalayam, Coimbatore District, PIN - 641025. Mail: greenera2k17@gmail.com, prashkuttan@gmail.com Contact: 9965664526	31.03.2022
21	M/s. S.P.P. Enterprises, S. F. No.: 184 / 4C, Mambakkam village, Sriperumpudur Taluk, Kancheepuram District, PIN - 602 106. Mail: sppenterprices@gmail.com info@sppenterprises.in Contact 044-27169088, 044-27169111	12.07.2023
22	M/s. A.K Enterprises, No.12, Chakarapani Street, Velachery, Chennai-600032 Mail: akenter06@gmail.com Contact: 9176664862	15.03.2021

List of authorized recyclers located in the State of Tamil Nadu

S. No.	Name and address of the unit	Validity of authorisation
1	M/s. TES-AMM (India) Pvt. Ltd., Plot No.: A-18, SIPCOT Industrial Growth Centre, Oragadam, Sriperumbudur Taluk, Kancheepuram District. PIN - 631 604 Mail: guha@tes-amm.net Contact: 044- 45000353, 9176755506.	14.08.2021

List of authorized refurbishers located in the State of Tamil Nadu

S. No.	Name and address of the unit	Validity of authorisation
1	M/s. Ecosible Recyclers Pvt Ltd, 154 A / B, 8 th Mahatma Gandhi Road, Tass Industrial Estate, Ambattur, Chennai – 600 098. Mail: ravi.shastri@ecosible.com, Contact: 9500101738.	31.03.2023

4.3.8 BATTERIES (MANAGEMENT AND HANDLING) RULES, 2001 AS AMENDED IN 2010

The Ministry of Environment, Forest and Climate Change, Government of India has 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 for year 2018 is given below.

A. Manufacturers

No. of Manufacturers	No. of Manufacturers submitted returns	Quantity of batteries Sold		Quantity of used batteries sent to Authorized Recyclers		No. of collection centres	No. of dealers	No. of registered Dealers
		Nos.	Weight (Kg)	Nos.	Weight (Kg)			
21	21	5107084	19504935	489445	2834101	56	12095	167

B. Assemblers

No. of Assemblers	No. of Assemblers submitted returns	Quantity of batteries assembled and sold		Quantity of used batteries sent to Authorized Recyclers	
		Nos.	Weight (Kg)	Nos.	Weight (Kg)
7	5	15581	473349	864	14289

C – Importers

No. of Importers	No. of Importers submitted returns	Quantity of batteries sold		Quantity of used batteries sent to Authorized Recyclers	
		Nos.	Weight (Kg)	Nos.	Weight(Kg)
3	3	-	30961715	-	-

D – Bulk Consumers

No. of Bulk Consumers	No. of Bulk Consumers submitted returns	Quantity of batteries sold		Quantity of used batteries sent to Authorized Recyclers	
		Nos.	Weight (Kg)	Nos.	Weight (Kg)
30	30	32493	899359	14342	693399

E – Auctioneers

No. of Auctioneers	No. of Auctioneers submitted returns	Quantity of batteries Sold		Quantity of used batteries sent to Authorized Recyclers	
		Nos.	Weight (Kg)	Nos.	Weight (Kg)
4	4	6433	259088	6311	259088

F – Recyclers

No. of Authorized Recycler	Capacity of Recyclers (MT/Y)	No. 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
23	225390	16	125.92	0	8372.5	6395	514.66	4013.7	30955	5581.5

Name of the Lead Acid Batteries Manufacturers, Assemblers, Importers, BULK Consumers, Auctioners and Registered Recyclers

A. MANUFACTURERS

S. No.	Name and address of the units
1	M/s. R.R Traders No.1, Anna Nagar, Sangiliyandapuram, Trichy -1
2	M/s. High Energy Batteries I Ltd. (Labfacility), S.F. No.: 22 to 24, Pakkudi Road, Mathur Village, Pudukkottai District
3	M/s. The Power Battery Industries, S.F. No.: 40, Plot No.: 1D/1, SIPCOT Nathampannai Village, Pudukkottai District,
4	M/s. ABM Batteries, S.F. No.: 4F-2, SIPCOT Industrial Complex, Trichy Main Road, Pudukkottai District,
5	M/s. AVM Batteries, S.F. No.: 792, Shed No.: 9, SIDCO Industrial Estate, Mullur Village, Pudukkottai District
6	M/s. Edison Batteries G2-G2A, SIDCO Industrial Estate, Thanjavur Main Road, Pudukkottai District
7	M/s. Sri lakshmi Industries, SIPCOT Industrial Estate, Parvathipuram Village, Kurinchipadi Taluk, Cuddalore District
8	M/s. Jayachandran Industries Private Limited, S.F. No.: 219/2A, 2B, 220/1B, 1C, 1D, 1F, Masagounden Chettipalayam, Annur, Coimbatore
9	M/s. Altech Batteries, 1/285 J, Mudalipalayam Village, Arasur PO, Suler Taluk, Coimbatore District
10	M/s. TAFE Power Source Division Unit – I, MMDA Industrial Estate, Maraimalai Nagar, Kancheepuram District
11	M/s. TAFE Power Source Division Unit II, MMDA Industrial Estate, Maraimalai Nagar, Kancheepuram District
12	M/s. TAFE Power Source Division Unit – III, MMDA Industrial Estate, Maraimalai Nagar, Kancheepuram District
13	M/s. Golden Power Energy Solutions Pvt. Ltd., Plot No.: R-39 & C-8, SIPCOT Industrial Growth Centre, Perundurai, Erode District
14	M/s. AMS Battery Industries, Plot No.: 64 and 65, Salem Industrial Co-op Estate, Udayapatty PO, Salem Taluk, Salem – 636 140.
15	M/s. Surya Batteries, Plot No.: 75, 76 and 80, Salem Industrial co-op Estate, Udayapatti Post Office, Salem – 636 140.
16	M/s. Guru Industries, Vadaveeranayakanpatti Village, Periyakulam Taluk, Theni
17	M/s. Luminous Power Technologies Pvt. Ltd., Vellore

18	M/s. Base Corporation Limited, Vellore
19	M/s. Green Vision Technologies Private Ltd., Vellore
20	M/s. Rams Power Tech, Vellore
21	M/s. Exide Industries Ltd., Vellore

B. ASSEMBLERS

S. No.	Name and address of the units
1	M/s. Mahalakshmi Industries, S.F. No.: 50/1B, Kavinadu East Kadayakudi Village, Pudukkottai Taluk, Pudukkottai District.
2	M/s. TMR Power Industry, S.F. No.: 45p, 46p, SIDCO Industrial Estate, Karuppur Village, Omalur Taluk, Salem District
3	M/s. Krish Auto Power (I) Pvt. Ltd., Vellore
4	M/s. Brite Industries , Vellore (Not in operation)
5	M/s. Anode Corporation, Vellore (Not in operation)
6	M/s. Amman Battery Industries, Vellore
7	M/s. Palayam Energy Private Limited, Vellore

C. IMPORTERS

S. No.	Name and address of the units
1	M/s. Shri Sabahri Smelters Pvt. Ltd., Plot No.: 84-85, SIDCO Industrial Estate, Vichoor, Ponneri Taluk, Tiruvallur District
2	M/s. Jain Metals Rolling Mills, Plot No.: R1 & R2, SIPCOT Industrial Estate, Gummidipoondi, S.F. No.: 155 Part, Pappankuppam Village, Gummidipoondi Taluk, Tiruvallur District
3	M/s. Pandy Oxides & Chemical Ltd., Plot No.: G -17-19, G-30-32, SIPCOT Industrial Park, Sriperumbudur PO Road and Taluk, Kancheepuram District

D. BULK CONSUMERS

S. No.	Name and address of the units
1	M/s. NLC India Ltd., Disposal Yard
2	M/s. Chennai Port Trust, Rajaji Salai, Chennai – 600001
3	M/s. ITC Grand Chola, 63, Mount Road, Guindy, Chennai – 600 032
4	M/s. Tata Communications Limited, VSB, No.: 4, Sivanathan Salai, Chennai – 600 002
5	M/s. Wipro Ltd., 111, Anna Salai, Guindy, Chennai – 600 032
6	M/s. Wipro Ltd., 105, Anna Salai, Guindy, Chennai – 600 032
7	M/s. Dell International Service India Pvt. Ltd., Plot No.: 1, Sidco Industrial Estate, Altius Block, Olympia Tech Park, Guindy, Chennai – 600 032
8	M/s. TAFE Ltd., Huzer Gardens, Sembiam, Chennai – 600 011
9	M/s. Southern Railway , Perambur, Chennai – 600 023
10	M/s. Infosys Ltd., Chennai – 113
11	M/s. Bimetal Bearings Limited, Huzur Gardens, Sembiam, Chennai – 600 011
12	M/s. AVIVA Life Insurance, Nungambakkam, Chennai – 600 034

13	M/s. AVIVA Life Insurance, Anna nagar, Chennai – 600 034
14	M/s. Standard Chartered Global Business, Nungambakam, Chennai – 600 034
15	M/s. Cognizant Technology Solutions India, Alwarpet, Chennai – 600 018
16	M/s. Hindustan Petroleum Corporation Ltd, Cassimode Black Oil Terminal No.: 22, Shaik Maistry Street, Royapuram, Chennai – 600 013
17	M/s. ICF Shell Division, ICF Colony Post, Furnision Division, Chennai
18	M/s. ICF Shell Division, ICF Colony Post, Shell Division, Chennai – 600 038
19	M/s. Sun TV Network Limited, Murasoli Maran Towers, 73, MRC Nagar Main Road, MRC Nagar, Chennai – 600 028
20	M/s. TRIL Infopark Limited, Guindy Taluk, Chennai
21	M/s. TNSTC CBE Ltd. Central Workshop IRTT Campus, Sri Vasavi College (PO), Erode
22	M/s. JSW Steel Ltd., M. Kalipatti Village, Mettur Taluk, Salem District
23	M/s. Mettur Thermal Power Station – I, Chinnakavur, Mettur Dam, Mettur Taluk, Salem District.
24	M/s. Mettur Thermal Power Station – II, P.N. Patti, Mettur – 636406.
25	M/s. Chemplast Sanmar Ltd., Plant – I, Mettur Dam RS PO, Mettur Taluk, Salem
26	M/s. Chemplast Sanmar Ltd, Plant – III, Chlorochemicals Division, Raman Nagar PO, Mettur Dam, Mettur Taluk, Salem District – 636 403.
27	M/s. Steel Authority of India Ltd., Salem Steel Plant, Alagusamudram, Tharamangalam Main Road, Salem – 636 013.
28	M/s. T.V. Sundram Iyengar & Sons Private Limited, Benz Division, No. 211, South Veli Street, Madurai – 625 001
29	M/s. Amarnath Enterprises, 220, South Veli Street, Madurai – 625 001
30	M/s. Tamil Nadu State Transport Corporation Limited (Villupuram Division), Salamedu, Villupuram Town & Taluk, Villupuram District.

E. AUCTIONERS

S. No.	Name and address of the units
1	M/s. BHEL Factory, Trichy
2	M/s. Central Workshop, Trichy
3	M/s. Maruthi Service Master (JJ Impex) Delhi Pvt. Ltd., Plot No.: 9, Thiru. Vi. Ka. Industrial Estate, Guindy, Chennai – 600 032
4	M/s. Chennai Port Trust, Chennai – 600 001

F. RECYCLERS

S. No.	Name and address of the units
1	M/s. Trichy Metals and Alloys 536/2A, Thathamangalam Village, Manachanallur Taluk, Trichy District
2	M/s. Power Tech Industries, S.F. No.: 40, Plot No.: 1-D/2, SIPCOT Industrial Complex, Nathampennai, Pudukkottai District
3	M/s. Prakash Alloys Industries, S.F. No.: 77/5A, 5C, Vadugapatti Village, Illuppur Taluk, Pudukkottai District
4	M/s. K.M.R. Metal Mart, 1/266-B Pollachi Main Road, Near SIDCO Railway Gate, Eachanari PO, Coimbatore – 641 021.

5	M/s. Emaar Lead Company Pvt. Ltd., S.F. No.: 47 part, Puliyamarathupala, Selakarachal Village, Sulur Taluk, Coimbatore District – 641 658
6	M/s. POCL Enterprises Ltd., Maraimalai Nagar, Kancheepuram District
7	M/s. Shri Sabahri Smelters Pvt. Ltd., Plot No.: 84-85, SIDCO Industrial Estate, Vichoor, Ponneri Taluk, Tiruvallur District
8	M/s. GMT Alloys, Plot No.: B 25, SIPCOT Industrial Complex, Gummidipoondi, S.F. No.: 354 part, Pappankuppam Village, Gummidipoondi Taluk, Tiruvallur District
9	M/s. Jain Metals Rolling Mills, Plot No.: R1 & R2, SIPCOT Industrial Estate, Gummidipoondi, S.F. No.: 155 Part, Pappankuppam Village, Gummidipoondi Taluk, Tiruvallur District
10	M/s. Prems Gold, R.S. No.: 147-11, Malandur Village, Uthukottai Taluk, Tiruvallur District (Not in Operation).
11	M/s. Southern Power Industries, Plot No.: 3, Electrical Industrial Estate, Kakkalur, Tiruvallur.
12	M/s. EI Tech Power System Private Limited, Shed No.: 135/2, SIDCO Industrial Estate, Tirumaizhisai, Poonamallee Taluk, Tiruvallur District.
13	M/s. Pandy Oxides & Chemical Ltd., Plot No.: G -17-19, G-30-32, SIPCOT Industrial Park, Sriperumbudur PO Road and Taluk, Kancheepuram District
14	M/s. Universal Iron Traders, S.F. No.: 223/1B & 2B, Kuppapalayam Village, Annur Taluk, Coimbatore District
15	M/s. Sri Vari Industries, S.F. No.: 259/1E-1F, Kunnathur Village, Annur Taluk, Coimbatore District
16	M/s. M.R. Metal, Plot No.: 11, SIDCO Industrial Estate, Nanjai Uthukuli Village, Erode Taluk, Erode District
17	M/s. Krishnakumar Metal Refiners, 433/2, Nanjai Uthukuli Village, Erode Taluk, Erode District
18	M/s. Jayachandran Alloys (P) Ltd., Plot No.: P-26, 5th Cross, SIPCOT Industrial Growth Centre, Perundurai, Erode District
19	M/s. Valarmathi Alloys, Shed No.: 9 and 10, SIDCO Industrial Estate, Veerapandi Village, Ariyanur post, Salem – 636 308.
20	M/s. Ayisha Saw Mill, A-64, Madurai Automobiles Industrial Estate, Kappalur, Thirumangalam Taluk, Madurai
21	M/s. Global Lead Alloys, Krishnagiri District (Not in operation)
22	M/s. Bharath Lead Smelters, Krishnagiri District.
23	M/s. Universal Lead Alloys, Vellore – 9.

CHAPTER – 5

TNPCB LABORATORIES

5.1 INTRODUCTION

As per Section 25 and 26 of the Water (Prevention & Control of Pollution) Act, 1974 and as per Section 21 of the Air (Prevention & Control of Pollution) Act, 1981, any industry or person applying for consent has to submit the analysis report regarding discharge of effluent, air quality and stack emission test report obtained from the established / recognized lab.

Further, as per the provision of Section 17 (2) of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution), Act, 1981, the Board may establish or recognize a laboratory or laboratories to enable the State Board to perform its functions efficiently.

In view of the above, the Board has established its first laboratory at Madras during 1984 as per B.P. Ms. No. 35, Dated: 09.08.1984.

Subsequently, due to the needs and requirements of laboratories, the following Regional Laboratories have been established

Madurai	G.O. MS. No.: 25, dated: 04.10.1985
Salem	G.O. MS. No.: 60, dated: 26.08.1986
Vellore and Ambattur	G.O. issued during the year 1990
Hosur, Coimbatore, Trichy and Tirunelveli	G.O. MS. No.: 52, dated: 21.11.1995
Tiruppur	B.P. MS. No.: 40, dated: 17.12.1997
Tuticorin & Dindigul	B.P. MS. No.: 12, dated: 27.01.1999,
Erode	G.O. MS. No.: 23, dated: 17.03.1999
Shifted to Manali, Chennai	B.P. MS. No.: 12, dated: 19.06.2002
Cuddalore	G.O. (3D) No.: 37, dated: 21.06.2010
Maraimalai Nagar	G.O. MS. No.: 209, dated: 17.08.2012
Perundurai	G.O. MS. No.: 38, dated: 21.03.2017

District Environmental Laboratories at Trichy, Vellore and Tirunelveli were upgraded to Advanced Environmental Laboratories (AELs) vide G.O. MS. No.: 42, dated: 28.03.2017 at a cost of Rs.1.5 Crores.

At present, 8 Advanced Environmental Laboratories (AELs) at Chennai, Coimbatore, Cuddalore, Madurai, Salem, Tirunelveli, Trichy and Vellore are functioning and the remaining 8 Laboratories are District Environmental Laboratories functioning at Ambattur, Dindigul, Hosur, Manali, Maraimalai Nagar, Tiruppur, Tuticorin and Perundurai.

Further, Advanced Environmental Laboratories in Chennai, Coimbatore, Cuddalore, Madurai and Salem have obtained NABL (National Accreditation Board for Testing and Calibration Laboratories) as per ISO / IEC 17025:2005 by conducting the pre-assessment of laboratory activities and policies and final assessment of both policy and technical matters by third party auditors appointed by Central Government Agencies i.e. (NABL). All the above five laboratories have obtained NABL certificates during the year 2015 and the laboratories have renewed their certificates up to the year 2020.

During the year 2018-19, 25428 samples of water, sewage and trade effluents were collected and analysed and stack monitoring and ambient air quality survey was conducted in 1219 units.

5.2 FUNCTIONS OF THE LABORATORIES

- Testing of environmental samples such as water and air.
- Verification of compliance of environmental standards as stipulated by the pollution control authorities.
- Performance evaluation of pollution control systems.
- Analysis of trade effluents / water / sewage samples collected by the O/o. District Environmental Engineers (DEEs).
- Monitoring, sampling and analysis of Ambient Air Quality / Stack Monitoring in the industrial areas as per the list provided by the DEEs.
- Monitoring, sampling and analysis of Ambient Air Quality / Stack Monitoring based on the complaints received from DEEs / JCEEs.
- Conducting noise level monitoring.
- Conducting special air / noise surveys during festivals like Diwali, Bhogi etc.
- Special campaign along with Transport Department for vehicle emission monitoring.
- Joint inspections of private vehicle emission monitoring stations along with the officials of the Transport Department.

The performance of laboratories for the period April 2018 – March 2019 is enclosed in Annexure – 5

5.3 FACILITIES AVAILABLE IN TNPCB LAB:

S. No.	Name and address of the Laboratory	Jurisdiction covered	Details on facilities available for having storage of samples, instruments / equipment for analysis, target fixed per scientist etc.,
1	AEL – Chennai Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai – 600 032.	Chennai, Ambattur, Sriperumbudur and Tiruvallur	AOX Analyzer, Atomic Absorption Spectrophotometer, Bacteriological Incubator, BOD Incubator, CO Analyser, COD Digester, Conductivity Meter, Dissolved Oxygen Meter, Flame Photometer, FTIR, Gas Chromatograph, Mercury Analyzer, Muffle Furnace, Ozone Analyzer, pH meter, PM _{2.5} Sampler, Roto Evaporator, Sound Level Meter, Stack Monitoring Kit, TKN Analyzer, Turbidity Meter, UV Visible Spectrophotometer, VOC Analyzer, Wind Monitoring Kit, Vacuum Pump with three piece filter assembly
2	AEL - Coimbatore 3rd & 4th Floor, No.: 5 Ramasamy Nagar, Near Fire Service Station, Kaduvam Palayam, Coimbatore – 641 030.	Coimbatore (North), Coimbatore (South) & Nilgris	Ambient Ozone Analyser, Analytical Balance, Atomic Absorption Spectrometer with Graphite Furnace, Automatic Weather Station, BOD Incubator, CAAQM Station, CO Analyser, COD Digester, Conductivity Meter, Fine Particulate Sampler PM _{2.5} , Fine Particulate Sampler APM 550 EL, Fine Particulate Sampler APM 550, Flame Photometer, Handy Sampler, Micro Balance, pH Meter, RDS Sampler, 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, Micro Balance, pH Meter, RDS Sampler, Sound Level Meter, Stack Monitoring Kit, TKN Analyser, UV Visible Spectrophotometer, Humidity Chamber
4	AEL – Madurai, SIIDCO Industrial Estate, Kappalur, Thirumangalam Taluk, Madurai – 625 008.	Madurai, Sivangai, Viruthunagar, 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), Safety Shower Cum Eye Washer, Semi-Micro Balance, Sound Level Meter, Stack Monitoring Kit, Top Pan Balance, Turbidity Meter, UV 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, Sound Level Meter, Stack Sampler, TKN Digester, Turbidity Meter, UV Visible Spectrophotometer, VOC Monitor

6	AEL – Vellore, Auxilium College 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 Digestor
7	AEL – Trichy, 25, Developed Plots, Thuvakkudi, Trichy – 15.	Trichy, Pudukottai, Nagapattinam, Thanjavur, Ariyalur	Atomic Absorption Spectrophotometer with Graphite Furnace, Bacteriological Incubator, BOD Incubator, CO Gas Detector, COD Digester, Conductivity Meter, Dissolved Oxygen Meter, Fine Particulate High Volume Samplers RSPM (PM _{2.5}), Fine Particulate Sampler APM 550, Flame Photometer, Flue Gas Analyser, Gas Chromatograph, Micro Balance, pH Meter, Research Centrifuge, Respirable Dust Sampler, 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, Autoclave, Bacteriological Incubator, BOD Incubator, Centrifuge, COD Digester, Conductivity Meter, Dissolved Oxygen Meter, Dry Gas Meter, Fine Particulate Sampler, Flame Photometer, Gas Chromatograph, Handy Air Sampler, Micro Balance, Muffle Furnace, pH Meter, Respirable Dust Sampler, Sound Level Meter, Spectrophotometer, Stack Monitoring Kit, Top Pan Balance, Total Kjeldhal Nitrogen Unit, Turbidity Meter
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 Gigester, Conductivity Meter, Dissolved Oxygen Meter, Fine Particulate Sampler APM550, Flame Photometer, High Volume Sampler APM 460 NLS, Muffle Furnace, pH Meter, PM _{2.5} Sampler APM 550, Respirable Dust Sampler APM 460, 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 APM 550, RDS Sampler (PM ₁₀), Sound Level Meter, Spectro Photometer, 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, Flame Photometer, Gas Chromatograph, Handy Sampler, High Volume Sampler, Micro Balance, Microwave Digestor, Muffle Furnace, Orion Analyser, pH Meter, Research Centrifuge, Respirable Dust Sampler, Scanning UV Double Beam

			Spectrophotometer, Sound Level Meter, Stack Monitoring Kit, TKN Digestor, Top Pan Balance, Turbidity Meter, Wind Monitoring System
12	DEL – Manali, 950/1, Poonamallee High Road, Arumbakkam, (O/o. DEL Manali), Chennai – 600 106.	Manali, Ambattur	Analytical Balance, BOD Incubator, COD Digestor, pH Meter, Conductivity Meter, Flame Photometer, Flue Gas Analyser, High Volume Sampler, Kjeldhal Nitrogen Unit, Muffle Furnace, PM _{2.5} Sampler, RDS Sampler, 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, Kanchipuram District, Maraimalai Nagar – 603 209	Maraimalai Nagar	BOD Incubator, COD Digestor, Conductivity Meter, Dissolved Oxygen Meter, Flame Photometer, Micro Balance, Muffle Furnace, Respirable Dust Sampler, Sound Level Meter, Stack Monitoring Kit, Top Pan Balance, Total Kjeldhal Nitrogen Analyser, UV Visible 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, 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, BOD Incubator, pH Meter, Conductivity Meter, Dissolved Oxygen Meter, Flame Photometer, Muffle Furnace, Respirable Dust Sampler, Semi Micro Balance, Sound Level Meter, Spectrophotometer, Stack Monitoring Kit
16	DEL – Perundurai, VRV Complex, 1 st floor, No.: 167, Bhavani Road, Perundurai – 638 052.	Perundurai, Erode and Flying Squad Erode	BOD Incubator, COD Digestor System, Conductivity Meter, Dissolved Oxygen Meter, Fine Particulate PM _{2.5} Sampler, Flame Photometer, Muffle Furnace, pH Meter, Respirable Dust Sampler, Semi Micro Balance, Stack Monitoring Kit, TKN Analyser, Turbidity Meter, UV Double Beam Spectrophotometer, Deep Freezer, Water Bath, Single Distillation DM Plant, Fume Cupboard, Cyanide / Fluoride Distillation Unit, Vacuum Pump, Hot Air Oven, Dessicator, UPS system 5 KVA, Refrigerator, Flue Gas Analyser.

CHAPTER – 6

AIR, WATER, NOISE QUALITY MONITORING PROGRAMMES

6.1 AIR QUALITY MONITORING

With the increased industrial and commercial activities in the vicinity of major cities, the quality of the ambient air is being affected by emissions from the industries and from the ever increasing vehicular population. As per the provisions of the Air (Prevention and Control of Pollution) Act, 1981, the entire State of Tamil Nadu has been declared as an air pollution control area.

6.1.1 AMBIENT AIR QUALITY MONITORING IN CHENNAI

Tamil Nadu Pollution Control Board is operating eight ambient air quality monitoring stations in Chennai under National Air Quality Monitoring Programme (NAMP) funded by Central Pollution Control Board.

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	Commerical area (Traffic intersection)
4	Kathivakkam	Industrial area
5	Manali	Industrial area
6	Nungambakkam	Commerical area (Traffic intersection)
7	Thiruvottiyur	Industrial area
8	T.Nagar	Commerical 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 Respirable Suspended Particulate Matter (RSPM) (RSPM is particulate matter less than 10 microns, less than 2.5 microns) and gaseous pollutants such as Sulphur dioxide (SO₂) and Nitrogen dioxide (NO₂)).

The National Ambient Air Quality Standards prescribed is given below:

Area	Standard annual average concentration of pollutants in µg/m ³		
	SO ₂	NO ₂	RSPM
Industrial, Residential, Rural and other areas	50	40	60

The ambient air quality data collected from the above mentioned air quality monitoring stations (NAMP) indicates that parameters such as sulphur dioxide and nitrogen dioxide are well within the limits in Chennai including the industrial area. The average values of Respirable Suspended Particulate levels exceeded the standards in Chennai at T.Nagar, Nungambakkam and Anna Nagar Monitoring Stations (NAMP).

The exceedance of RSPM levels at few stations in Chennai city namely Anna Nagar, Nungambakkam and T.Nagar are mainly due to the Metro Rail Works, dust contributed by pipe line, telephone / electrical cable laying activities on the road and also due to the re-suspension of traffic dust generated from automobile emissions and heavy vehicular traffic and pedestrian movement. The average values of pollutants recorded at the above monitoring stations under NAMP programme during the period 2018-2019 are in Annexure – 6. Tamil Nadu Pollution Control Board displays the daily monitoring data through electronic display board at the Head Office, Guindy to create awareness to the general public.

6.1.2 AMBIENT AIR QUALITY MONITORING IN OTHER CITIES AND MAJOR TOWNS IN TAMIL NADU

Under NAMP, TNPCB monitors the ambient air quality in other cities and major towns in Tamil Nadu. The location of stations is given below.

S. No.	Station location	Land use zone
Thoothukudi (Since 1988)		
1	Raja Agencies	Industrial zone
2	SIPCOT	Industrial zone
3	A.V.M. Building	Mixed zone
Coimbatore (Since 1991)		
4	District Collector's Office	Mixed zone
5	Ponniyarajapuram	Residential zone
6	SIDCO Building	Industrial zone
Salem (Since 1996)		
7	Sowdeswari College	Mixed zone
Madurai (Since 1996)		
8	Highways Project Building	Residential zone
9	M/s. Susee Cars and Trucks Co. Ltd.	Industrial zone
10	Madurai Corporation Office (SZ)	Mixed zone
Trichy (Since 2012)		
11	Gandhi Market	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 (Since 2013)		
16	Echankadu Village	Residential zone

17	DEE Office	Commercial zone
18	SIPCOT	Industrial zone
Mettur (Since 2013)		
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 NAMP stations are analysed for the RSPM and gaseous pollutants such as sulphur dioxide and nitrogen dioxide. The ambient air quality data recorded during 2018-2019 indicates that parameters sulphur dioxide and nitrogen dioxide are well within the standards at Thoothukudi, Madurai, Coimbatore, Salem, Trichy, Cuddalore and Mettur.

The annual average values of PM₁₀ were found to exceed the standards at M/s. Raja Agencies in Thoothukudi. The exceedance of PM₁₀ at the above monitoring stations may be due to the increase in number of vehicles and the surface dust generated by vehicular movement but also due to the digging and laying activities for pipe lines, electrical and telephone cables and due to heavy commercial and industrial activities. The annual average values of pollutants recorded at the above monitoring stations during the period 2018-2019 is tabulated in Annexure – 6.

6.2 CONTINUOUS AMBIENT AIR QUALITY MONITORING STATIONS

In order to monitor the ambient air quality on a continuous basis, TNPCB has installed 7 Continuous Ambient Air Quality Monitoring (CAAQM) stations. Four stations are installed at Chennai (viz) Koyambedu, Royapuram, Perungudi, Kodungaiyur, one station at SIPCOT Gummidipoondi, one station at SIPCOT Thoothukudi and another one station at SIPCOT Perundurai. The CAAQM stations at Royapuram, Perungudi, Kodungaiyur and SIPCOT Thoothukudi monitors PM₁₀, PM_{2.5}, SO₂, NO₂, NH₃, O₃, CO and BTX, whereas the CAAQM stations at Koyambedu and SIPCOT Gummidipoondi monitors PM₁₀, PM_{2.5}, SO₂, and NO₂ on a continuous basis.

In addition to the above, TNPCB, in collaboration with CPCB is operating one CAAQMS at Manali and one station at Coimbatore on a 50:50 cost sharing basis under the programme of CAAQMS – Network in Critically Polluted Areas. The online data recorded in CAAQM Stations during the year 2018 is given in Annexure – 7.

6.3 MOBILE CONTINUOUS AMBIENT AIR QUALITY MONITORING STATION

Tamil Nadu Pollution Control Board has commissioned one mobile continuous ambient air quality monitoring station to monitor the ambient air quality on real time basis. The mobile station has the facility to monitor the ambient air parameters like sulphur dioxide (SO₂), nitrogen dioxide (NO₂), ammonia (NH₃), ozone (O₃), carbon monoxide (CO), benzene, toluene, ethyl benzene, xylene (BTEX), particulate matter less than 10 micron (PM₁₀) and particulate matter less than 2.5 micron (PM_{2.5}). The station also have a 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 hotspots of Chennai city and other places wherever necessary.

During the period 2018-19, mobile continuous ambient air quality monitoring station has monitored 51 locations including industries, public places, villages and industrial estates located in the State of Tamil Nadu.

6.4 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 impact on nearby water bodies or on ambient air quality. Central Pollution Control Board has developed specific guidelines for monitoring purpose during the festival celebrations. Tamil Nadu Pollution Control Board is monitoring ambient air quality at various locations in the State during Pongal (Bhogi) festival, ambient air quality and noise during Deepavali. During the celebration of Vinayagar Chaturthi, TNPCB monitors water quality of water bodies where the Vinayagar idols are immersed. The Deepavali monitoring results for the 2018 Deepavali are given in Annexure – 8.

6.5 CARE AIR CENTRE (CAC)

In order to monitor both source emissions and ambient air quality on a real time basis of the industries, TNPCB has 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 24 X 7 X 365 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 31.03.2019, 430 stack emission and 115 ambient air quality monitoring stations located in the units are connected to this centre.

6.6 WATER QUALITY MONITORING

Tamil Nadu Pollution Control Board 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 along the four major rivers i.e. Cauvery, Tamiraparani, Palar and Vaigai and eight lakes Udthagamandalam, Kodaikanal, Yercaud, Veeranam, Porur, Poondi, Pulicat and Redhills. Under GEMS and MINARS programmes the River Cauvery is being monitored.

At present 55 stations are being monitored by Tamil Nadu Pollution Control Board. The programmes are funded by the Central Pollution Control Board, Delhi.

Generally the water quality criteria for CPCB – GEMS / MINARS programme of the river is categorized under Class A, B, C, D, E and below E based on its Designated Best Use (DBU)

As per IS 2296-1982 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, Controlled Waste Disposal & Below E refers to the quality of water that is not meeting A, B, C, D and E Criteria.

6.6.1 RIVER CAUVERY AND ITS TRIBUTARIES

The Cauvery River is a major river in the State which drains more than one third of the State. This river has been identified as a major river for studying the impact of pollution caused by various activities of the domestic and industrial sectors. The quality of Cauvery river water is being monitored at Thirty Three (33) places along the river under GEMS (4 stations) and MINARS (29 stations). These places have been selected on the basis of the location of outlets for the discharge of industrial effluents, municipal and domestic wastes.

The physico-chemical and biological parameters are analysed for all the monitoring stations in the Advanced Environmental Laboratory at Salem. Sampling is carried out based on the frequency prescribed by Central Pollution Control Board, Delhi. The mean values of water quality at various sampling stations are enclosed in Annexure – 9A, 9B and 9C. The overall analysis of the data reveals contamination of surface water of the river, due to the unhygienic anthropogenic activities and disposal of either untreated or partially treated municipal and domestic wastes into the river systems directly or indirectly. Generally

1. The water quality of river Cauvery at Mettur, Musiri Borewell, Bathirakaliamman koil, Sirumugai, Bhavani Sagar, Madathukulam, Colerron, Karunthattankudi, Kumbakonam, Mayiladuthurai and Sathyamangalam falls under Class 'B'.
2. Musiri Ferrygate, Pallipalayam, Bhavani, R.N. Pudur, Vairapalayam, P.Velur, Mohanur, Thirumukkudal, Trichy Upstream, Trichy Downstream, Pitchavaram, Kumarapalayam, Urrachikottai, Chirampalayam, Pugalur, Pettaivaithalai, Kalingarayan Canal B5 and B10 falls under Class 'C'
3. Vaigai falls under Class 'D'.
4. Grand Anicut falls under Class 'E'.
5. Thirumanimuthar, Vasista and Sarabanga falls under Below 'E'.

6.6.2 RIVER TAMIRAPARANI

The water quality of the Tamiraparani River is being monitored on a frequency prescribed by Central Pollution Control Board, Delhi at 12 places. The physico-chemical parameters and biological parameters are analysed in the District Environmental Laboratory at Tirunelveli and the details are furnished in the Annexure–10. The analysed data reveals that the water quality falls under class 'A', 'B' and 'D'.

1. The water quality of River Tamiraparani at Ambasamudram and Kallidaikurichi falls under Class 'A'.
2. Thiruidaimarudur falls under Class 'B'.
3. Papanasam, Cheranmadevi, Kokirakulam, Murapanadu, Authoor, Eral, Srivaikuntam, Vellakovil and Sivalaperi falls under Class 'D'.

6.6.3 RIVER PALAR

The water quality of River Palar is being monitored every month with one monitoring station at Vaniyambadi Municipal Head Works. The analysis of water samples is done in the Advanced Environmental Laboratory at Chennai for physico-chemical and biological parameters. The data are not furnished as there is no flow in the Palar River.

6.6.4 RIVER VAIGAI

The water quality of the Vaigai river is being monitored by collecting the samples once in six months from the collection well of Thirubuvanam Head Works and analysed in the Advanced Environmental Laboratory at Madurai for physico-chemical and bacteriological parameters. The water quality of the Vaigai River (collected from infiltration well) falls under Class 'D' and details are furnished in the Annexure – 11.

6.6.5 LAKES

Under MINARS programme, eight (8) important lakes of Tamil Nadu at Udthagamandalam, Kodaikanal, Yercaud, Veeranam, Porur, Poondi, Pulicat and Redhills have been identified and monitored by collecting samples on a monthly basis. The mean value of water quality are furnished in Annexure - 12

1. The water quality of Veeranam falls under Class 'B'.
2. The water quality of Yercaud falls under Class 'C'.
3. The water quality of Ooty, Kodaikanal, Poondi, Redhills and Porur falls under Class 'E'.
4. Pulicat Lake falls under the Class below 'E'.

6.7 CHENNAI CITY WATER WAYS MONITORING PROGRAMME

Tamil Nadu Pollution Control Board is monitoring the water quality of four city water ways in Chennai city (i.e.) Adyar River, Buckingham Canal, Cooum River and Otteri Nallah to assess the pollution level by collecting monthly water samples from April 2003 both in water bodies and sewage / industrial outlets into the said water bodies. Totally, 30 monitoring locations and the same are given as follows:

S. No.	Name of water body	Sampling location in the water body	Sampling location of sewage / Industrial outfall
1	Adyar river	i. Manapakkam Bridge ii. Thiru Vi Ka Bridge iii. Alandur Abraham Bridge	i. Slaughter house ii. Nesapakkam STP outlet iii. Nesapakkam STP outlet Extension
2	Buckingham canal	i. Kathivakkam Bridge ii. Manali Road Bridge iii. Wallaja Road Bridge iv. Lattice Road Bridge	i. Ennore Thermal Power Station ii. CPCL – I outlet iii. CPCL – II outlet iv. MFL outlet v. Kodungaiyur STP outlet – I vi. Kodungaiyur STP outlet – II vii. Kodungaiyur 110 MLD STP outlet
3	Cooum river	i. Thiumangalam cause way ii. Chitra Talkies bridge iii. Napier bridge	i. Koyambedu STP Outlet ii. Koyambedu STP Outlet Extn. iii. Alandur STP Outlet iv. Perungudi STP Outlet
4	Otteri Nallah	i. Block 'L' East Road bridge ii. Asprin Garden Bridge iii. Vyasarpadi Road bridge	i. Slaughter House ii. ICF Shell iii. Villivakkam STP Outlet
	Total Stations	13	17

The Report of analysis of the above stations is given in Annexure – 13A, 13B, 13C and 13D. The report reveals that the BOD, TDS and Chlorides are at high levels.

6.8 WATER QUALITY WATCH CENTRE (CAC)

Tamil Nadu Pollution Control Board has established a Water Quality Watch Centre at the Corporate Office, Chennai. It is functioning since July 2015. This centre monitors the quality of treated effluent at the outlet of the treatment plant on continuous (24x7) basis through online. The 17 category of highly polluting industries, Red-Large industries and Common Effluent Treatment Plants are connected to this centre. As on 31.03.2019, 274 units are connected to this centre, of which 164 units are connected for zero liquid discharge monitoring (CETP - 30 and IETP - 134) and 108 units for treated effluent discharge monitoring and 2 river body monitoring. The online monitors in the river Thamirabarani and Cauvery are connected to this centre. The parameters monitored through this centre include pH, TDS, DO and Flow.

6.9 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.

Tamil Nadu Pollution Control Board in association with CPCB has established 10 Real Time Ambient Noise Monitoring Stations in Chennai City under National Ambient Noise Monitoring Network Programme. The locations are 1) Egmore 2) T.Nagar 3) Perambur 4) Guindy 5) Triplicane 6) Pallikaranai 7) Velachery 8) Washermanpet 9) Anna Nagar and 10) Sowcarpet. The monitoring data reveals that the ambient noise level in Chennai city is exceeding the prescribed standards which may be due to vehicular movement and construction activities. The annual average noise level for the year 2018-2019 is given in Annexure – 14.

6.10 VEHICLE EMISSION MONITORING

In Tamil Nadu, Emission Under Control Certificate (EUCC) is issued to all kind of vehicles by the private emission testing centers authorized by Transport Department under Rule 116(B) of Tamil Nadu Motor Vehicles Rules, 1989. The Board conducts training programmes on operation of emission checking instruments for the persons to be engaged in emission checking centers. The Board also issues working performance certificate for the new emission monitoring instruments to be used in the private emission testing centers.

CHAPTER – 7

ENVIRONMENTAL STANDARDS

7.1 INTRODUCTION

One of the functions of Tamil Nadu Pollution Control Board is to lay down, modify or annul effluent standards with the approval of Government of Tamil Nadu, for the sewage and trade effluents and for the emission of air pollutants into the atmosphere from industrial plants and automobiles or for the discharge of any air pollutant into the atmosphere from any other source. Tamil Nadu Pollution Control Board adopts the standards notified by the Ministry of Environment, Forest and Climate Change under the Environment (Protection) Act, 1986. The Board has also prescribed standards for the discharge of treated sewage / trade effluents depending upon the mode of disposal either into inland surface water, sewer and marine coastal areas or on land. Treated effluent from the industries must satisfy the respective standards before its disposal. Ambient Air Quality Standards and Emission Standards have been fixed for polluting industries. The Board monitors the quality of effluent, stack emission and ambient air quality in the vicinity of industries and ensures that they adhere to the prescribed effluent / emission standards.

7.2 PROHIBITION OF BURNING OF CASHEW NUT SHELLS

The Hon'ble High Court of Madras in W.P. No.: 5523 of 2001 Order dated 23.09.2008 and 28.10.2008 has directed the Government, Tamil Nadu to take a decision to control pollution due to the burning of cashew nut shells in the State. Based on that and based on the recommendations of TNPCB, the Government has notified the guidelines for burning of cashew nut shells. The guidelines can be downloaded from TNPCB website: www.tnpcb.gov.in

7.3 GUIDELINES FOR HOT MIX PLANT

The Hon'ble National Green Tribunal, Southern Zone in its Order dated 07.02.2016 in Application No.: 10 of 2016 has directed TNPCB to frame necessary guidelines stipulating various conditions in respect of hot mix units taking into consideration the environment and other aspects expeditiously, in any event within a period of eight weeks. Accordingly, TNPCB constituted a Committee and evolved guidelines for hot mix plants. It can be downloaded from the TNPCB website: http://www.tnpcb.gov.in/pdf_2016/Guidelines_Hotmixplant29072016.pdf

7.4 GUIDELINES FOR SOLID / HOLLOW BLOCK MANUFACTURING UNITS

The Hon'ble National Green Tribunal, Southern Zone in its Order dated 31.07.2014 in Application No.: 171 of 2013 have directed TNPCB to frame guidelines for solid / hollow block manufacturing units. Accordingly, Tamil Nadu Pollution Control Board constituted a Committee and evolved guidelines for solid / hollow block manufacturing units. It can be downloaded from the TNPCB website: http://www.tnpcb.gov.in/pdf_2016/GuidlintoHalowbloak280913.pdf

CHAPTER – 8

LEGAL ACTIONS

8.1 INTRODUCTION

The Board has been 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 31A of the Air (P&CP) Act, 1981 as amended. Industries those aggrieved of Board's closure direction / any directions under the Water & the Air (P&CP) Acts are filing Writ Petitions / Appeals before the Hon'ble High Court and Appellate Authority / NGT (SZ) / PB respectively.

Further, all the pollution / environmental related cases filed / being filed against TNPCB by the NGOs / public / individuals / 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 respectively are dealt by the Law Section of the Board and the activities are as follows:

1. Scrutinizing and approving Board's counter, written statements on the Interlocutory Applications, Original Petitions and Original Suits etc., filed in the Civil Courts by the third parties / industries.
2. Preparing brief history of the case, parawar remarks on the writ petitions filed in the Hon'ble High Court and furnish the same to the Board's Standing Counsel so as to enable him / her to prepare draft counter affidavit. Scrutinize the draft counter affidavit prepared by the Standing Counsel and put up for approval by Member Secretary and Chairman.
3. Assist Standing Counsel at the time of hearings of Writ Petitions in the High Court so as to conduct the cases more effectively.
4. Prepare and send Brief History of the case and Parawar Remarks, affidavit to the Advocate on record in the Supreme Court of India on Writ Petitions / SLPs filed in the Supreme Court.
5. Process the appeals filed against the decision of the Board before the Hon'ble Appellate Authority with regard to consent under Water & Air Acts and furnish the Brief History and Parawar Remarks on the appeals so as to defend the Board by the Board's Standing Counsel before the Hon'ble Appellate Authority.

6. To scrutinize the draft show cause notices and directions issued under Section 33A of the Water Act, 1974 and under 31A of the Air Act, 1981 which are put up by the Technical Section.
7. To offer legal guidelines whenever files are referred to Law Branch.
8. Monitoring the cases in Lower Courts in Madras City and mofussil, in all the Districts of Tamil Nadu.

8.2 GREEN BENCH

The Hon'ble High Court has constituted a 'Green Bench' during the year 1996 as per the directions of Hon'ble Supreme Court of India dated 28.8.1996 in W.P.(c) No.: 914 / 1991.

8.3 APPELLATE AUTHORITY

Hon'ble Appellate Authority has been constituted under the Chairmanship of a Hon'ble Justice (Retd.), High Court of Madras with two technical members as per the G.O. Ms. No.: 66, Environment and Forests Departments, dated: 07.05.2013. The Authority entertains and disposes off the appeals preferred by the industries against the Order of 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.

8.4 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 / Appellate Authority 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 the Hon'ble NGT within 30 days of the Order issued by the Board / Appellate Authority. Hon'ble National Green Tribunal for Southern Zone was constituted and is functioning at Chennai.

The cases filed, disposed and pending in the Hon'ble Supreme Court, High Court, National Green Tribunal and Appellate Authority during the financial year 2018-19 are as follows:

Court	No. of cases pending as on 31.03.2018	No. of cases filed from 01.04.2018 to 31.03.2019	No. of cases disposed (Including cases filed in previous years)	No. of cases pending as on 31.03.2019
Supreme Court	19	2	4	17
High Court	46	179	169	56
National Green Tribunal – Principal Bench	13	2	4	11
National Green Tribunal – Southern Zone	269	103	50	322
Appellate Authority	11	76	71	16
Total	358	362	298	422

8.5 IMPORTANT JUDGMENTS IN THE HON'BLE NGT (SZ), NGT (PB) & SUPREME COURT OF INDIA.

1. In the case filed by Shailesh Singh against Sheela Hospital & Trauma Centre, Kailash Hospital and Heart Institute & Others, Shri Ganga Charan Hospital (P) Limited, Bareilly & Others and Katiyar Nursing Home, Hardoi & Others in Original Application No.: 710 / 2017, the Hon'ble National Green Tribunal, (PB), New Delhi by its Order dated 15.07.2019.

Right to clean environment being part of right to life, such effective monitoring is a must. Such monitoring must include issues specified in the Order of this Tribunal dated 16.01.2019, O.A No.: 606 / 2018, Para 40 which is as follows:-

- a. Status of compliance of Solid Waste Management Rules, 2016, Plastic Waste Management Rules, 2016 and Bio-Medical Waste Management Rules, 2016 in their respective areas.
- b. Status of functioning of Committees constituted by this Order.
- c. Status of the action plan in compliance with the Order dated 20.09.2018 in the News item published in "The Hindu" authored by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB (Original Application No.: 673 / 2018).
- d. Status of functioning of Committees constituted in News item published in "The Times of India" authored by Shri Vishwa Mohan titled "NCAP with

multiple timelines to clear air in 102 Cities to be released around August 15” dated 08.10.2018.

- e. Status of action plan with regard to identification of polluted industrial clusters in O.A. No.: 1038 / 2018, News item published in “The Asian Age” authored by Sanjay Kaw titled “CPCB to rank industrial units on pollution levels” dated 13.12.2018.
 - f. Status of the work in compliance of the directions passed in O.A. No.: 173 of 2018, Sudarsan Das vs. State of West Bengal & Ors. Order dated 04.09.2018.
 - g. Total amount collected from erring industries on the basis of ‘Polluter Pays Principle’, ‘Precautionary Principle’ and details of utilization of funds collected.
 - h. Status of the identification and development of Model Cities and Towns in the State in the first phase which can be replicated later for other cities and towns of the State.”
2. In the case filed by Paryavaran Suraksha Samiti & Another against Union of India & Others in Original Application No.: 593 / 2017 (arising from W.P. (Civil) No.: 375 / 2012 on the file of the Hon’ble Supreme Court). The Hon’ble National Green Tribunal, (PB), New Delhi by its Order dated 28.08.2019 issued directions as follows:
- i. The environmental compensation regime fixed for industrial units, GRAP, solid waste, sewage and ground water in the report dated 30.05.2019 is accepted and the same may be acted upon as an interim measure.
 - ii. SPCBs / PCCs may ensure remedial action against non compliant CETPs or individual industries in terms of not having ETPs / fully compliant ETPs or operating without consent or in violation of consent conditions. This may be overseen by the CPCB. Central Pollution Control Board may continue to compile information on this subject and furnish quarterly reports to this Tribunal which may also be uploaded on its website.
 - iii. All the Local Bodies and / or the concerned departments of the State Government have to ensure 100% treatment of the generated sewage and in default to pay compensation which is to be recovered by the States / UTs, with effect from 01.04.2020. In default of such collection, the States / UTs are liable to pay such compensation. Central Pollution Control Board is to collect the same and utilize for restoration of the environment.

3. In the case filed by Shri L.G. Sahadevan, against Union of India & Others in Original Application No.: 586 / 2018 (Earlier O.A. No.: 422 / 2013 (SZ) the Hon'ble National Green Tribunal, (PB), New Delhi (Through Video Conferencing) by its Order dated 19.08.2019 issued direction as follows: (Regarding use of alternative fuel).

“The concerned Secretary of the State of Tamil Nadu dealing with transport is directed to prepare an action plan to implement the directions given in **Vardhaman Kaushik** case in Chennai and also detailed in Paragraph 3 of the Order dated 29.05.2019 after making elaborate study on this aspect. The State Government is directed to submit an action plan as directed within a period of 3 months”.

4. In the case filed by Social Action for Forest & Environment (SAFE) against Union of India & Others in Original Application No.: 400 / 2019 (I.A. No.: 403 / 2019, I.A. No.: 611 / 2019 & I.A. No.: 615 / 2019) the Hon'ble NGT (PB), New Delhi by its order dated 19.09.2019 issued directions as follows:

“The issue for consideration is the absence of proper management of End-of-Life Tyres / Waste Tyres (ELTs) in accordance with the Environment (Protection) Act, 1986, Environment (Protection) Rules, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, CPCB Guidelines for Environmentally Sound Management of End of Life Vehicles, 2016 and Standard Operating Procedures (SOP) issued by the MoEF&CC”.

The matter being covered by the Hazardous Waste Management Rules, there is need for restrictions on import and to regulate location of such units in the light of the carrying capacity of the area.

The direction should also deal with the restrictions on import so as to ensure that India does not become a dump yard for highly polluting hazardous wastes material from other countries and also to ensure that health of the workers involved in the process is duly safeguarded.

5. In the case filed by Central Pollution Control Board against State of Andaman & Nicobar & Others in Execution Application No.: 13 / 2019 in Original Application No.: 247 / 2017, the Hon'ble NGT (PB), New Delhi by its Order dated 12.03.2019 has issued direction as follows:

“We direct all the States and Union Territories to ensure that reports in terms of Rule 13 are furnished to CPCB positively within one month or 30th April, 2019, for the period the reports are due as per Rules and not filed so far. Central Pollution Control Board may furnish a status report of compliance of Plastic Waste Management Rules after proper analysis, to this Tribunal within one month thereafter by e-mail at ngt.filing@gmail.com. It is made clear that any failure in this regard will result in the defaulting States being required to pay compensation to be deposited with the CPCB at the rate of Rupees one Crore per month after 01.05.2019. All the States may also prepare their respective action plans for compliance of Rules within one month and furnish the same to the Central Pollution Control Board by 30.04.2019. Central Pollution Control Board may give its comments on the said action plans to this Tribunal within one month thereafter by e-mail at ngt.filing@gmail.com”.

6. In the case in O.A. No.: 681 / 2018 in the News item published in “The Times of India” authored by Shri Vishwa Mohan titled “NCAP with multiple timelines to clean air in 102 cities to be released around August 15”, the National Green Tribunal, Principal Bench, New Delhi by its Order dated 15.03.2019 issued directions as follows:

“The State PCBs may undertake noise level monitoring in conjunction with the Police Department and take remedial action. The Police Departments of all the States / UTs may obtain the noise monitoring devices within a period of three months and specification of such devices may be finalized in consultation with the respective State PCBs / Pollution Control Committees (PCCs). The Police Department of all the States / UTs may also train their staffs regarding the use of such devices and develop a robust protocol for taking appropriate action against the defaulters. Central Pollution Control Board may explore the possibility in consultation with the leading manufacturers of public address systems and other manufacturers of such instruments, to manufacture such equipments wherein the noise meters with data loggers are fitted therein so that as and when the prescribed parameters are violated, the same gets recorded and retrieved by the regulators for fixing the responsibility on the violators. The Chief Secretary may finalize action plans in this regard within three months and submit the same to CPCB. Central Pollution Control Board may give its report by July 15, 2019”.

7. In the case in O.A. No.: 606 / 2018 (Main) in the Compliance of Municipal Solid Waste Management Rules, 2016, the National Green Tribunal, Principal Bench, New Delhi by its Order dated 12.09.2019 issued directions as follows:

It was elaborated during the course of hearing that information is required to be submitted in terms of the following thematic areas viz.

- Compliance to Solid Waste Rules including Legacy Waste.
- Compliance to Bio-medical Waste Rules.
- Compliance to Construction & Demolition Waste.
- Compliance to Hazardous Waste Rules.
- Compliance to E-waste Rules.
- 351 Polluter Stretches in the country.
- 122 Non-attainment cities.
- 100 industrial clusters.
- Status of STPs and re-use of treated water.
- Status of CETPs / ETPs including performance.
- Ground water extraction / contamination and recharge.
- Air pollution including noise pollution.
- Illegal sand mining.
- Rejuvenation of water bodies.

8. In the case of OA No.: 1038 / 2018 on the News item published in "The Asian Age" authored by Sanjay Kaw titled "CPCB to rank industrial units on pollution levels" the National Green Tribunal, Principal Bench, New Delhi has passed Orders as follows:

"No further industrial activities or expansion be allowed with regard to 'Red' and 'Orange' category units till the said areas are brought within the prescribed parameters or till the carrying capacity of area is assessed and new units or expansion is found viable having regard to the carrying capacity of the area and environmental norms. Pending assessment of compensation and interim compensation shall be recovered at the scale adopted by this Tribunal in the case of Vapi industrial area.

CHAPTER – 9

ENVIRONMENTAL TRAINING INSTITUTE

9.1 INTRODUCTION

Tamil Nadu Pollution Control 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 the following aspects:

- (i) Create awareness regarding nature, i.e. Earth, Water, Environment etc.
- (ii) Introduce the basic theories, concepts and methodologies of integrated environmental planning and management aiming a sustainable development
- (iii) Promote public awareness and motivation to preserve and protect the environment through NGOs.
- (iv) Create cross-media awareness in industries, urban sectors and among the public on environmental hazards and adverse impacts on the quality of life.
- (v) Pollution control at source by cleaner technology and improved processes of materials and products. This includes conservation of non-renewable resources, resource recovery, refuse recycling and disposal of minimum waste to the environment.
- (vi) Improve environment management capacity in the sector of industry and urban development.
- (vii) Develop the ability among professionals to communicate effectively.

Environmental Training Institute is guided by a steering committee, chaired by the Chairman, TNPCB and its Members are from Government, TNPCB and CEOs of Industries. An Advisory Council comprising of members from industries, Non Governmental Organizations (NGOs), academic and government institutions, provide technical support to ETI. Environmental Training Institute is working in the 3rd floor of TNPCB Head Office.

Environmental Training Institute has performed the following training programmes during the year 2018-2019:

I. Training Programme conducted by ETI from April 2018 to March 2019

S. No.	Training Programme	Date of Training	Programme attend by
1	Public Service – Tamilnadu Civil Service – Deputy Collectors – Direct recruitment for the year 2011-2013 and 2012-2014 – Completion of District Training – Imparting Half Week training	09.04.2018 to 12.04.2018	Probationary Deputy Collectors Thiruvannamalai and Tiruvarur – 2 Nos.
2	One day training programme on “Environmental Health and Safety appertain to Industrial Air and Noise Pollution, Air Pollution Modelling and Assessment”	03.05.2018	Representatives from Industries – 54 Persons
3	One day training for IAS 2016 Batch	04.05.2018	IAS 2016 Batch – 12 persons
4	Public Service – Tamil Nadu Civil Service – Deputy Collectors – Direct recruitment for the year 2011-2013 and 2012-2014 – Completion of District Training – Imparting Half Week training	23.05.2018 to 26.05.2018	Probationary Deputy Collector Erode – 1 No.
5	Bio-Medical Waste Management Rules, 2016	09.07.2018	CSI Kalyani Nursing Students – 41 Nos.
6	Green Engineering for Sustainable Future	09.07.2018	Board Engineers, Scientists and Representatives from Industries – 50 Nos.
7	Improved performance of ETP by effective operation of RO System and Evaporators	16.08.2018	TNPCB Engineers and Representatives from Industries – 100 Nos.
8	TDS under GST	01.11.2018	TNPCB officials – 90 Nos.
9	TDS under GST	12.11.2018	TNPCB officials – 90 Nos.
10	Tamil Nadu Civil Service – Deputy Collectors – Direct recruitment for the year 2011-2013 and 2012-2014 – Completion of District Training – Imparting Half Week training	13.11.2018 to 15.11.2018	Deputy Collectors, Direct recruitment – 13 Nos.
11	Public Service – Tamil Nadu Civil Service – Pro Deputy Collectors – Direct recruitment for the year 2012 – 2014 and 2014-2015 – Completion of District Training – Imparting Half Week training.	13.12.18 to 15.12.18	Deputy Collectors, Direct recruitment – 3 Nos.
12	Training programme for Under Secretary / Section Officers of Secretariat.	17.12.2018	Under Secretary / Section Officers of Secretariat – 31 Nos.
13	Training Programme for Tamilnadu Civil Service – Pro Deputy Collector 2014-2015	18.1.2019, 21.01.2019 and 22.01.2019	Pro Deputy Collector – 1 No.
14	One day programme to students of Annamalai University visit to TNPCB, Organisation activities and AEL.	01.3.2019	Annamalai University Students – 39 Nos.

II. Training Programme attended by the TNPCB Officials – conducted by the Technical Expert Institutions in India during the year 2018-19

S. No.	Training Programme	Conducted by	Date of Training	No. of Officers attended
1	Training on 4S Project Consortium – One Day National Event on Small Scale Sewage Treatment Plants	Indian Institute of Technology Madras, Chennai.	05.04.2018	1

2	Developing of Best Available Techniques (BAT) Reference Document for Textile Sector in India	CPCB organized programme at India Habitat Centre, New Delhi	05.04.2018	1
3	Training on Brainstorming Sessions	Anna Institute of Management, Chennai	18.04. 2018	1
4	National Conference on "Safety Health and Environmental Legislations"	CES, Anna University, Chennai	28.04.2018	1
5	Pre-retirement counseling training	Anna Institute of Management, Chennai	26.06.2018 & 27.06.2018	26
6	Laboratory Quality Management and Internal Audit (As per ISO 17025:2017 version & NABL, Requirements	Engineering Staff College of India, Hyderabad	23.07.2018 to 26.07.2018	2
7	Effective Management of Hazardous Waste including E-Waste Co-Processing and Co-incineration Hazardous Waste Rules & Field Visit	International Institute Waste Management at Bengaluru	24.07.2018 to 26.07.2018	2
8	One day Conference on "Carrying Capacity Approaches"	CSIR-NEERI, New Delhi	29.10.2018	1
9	Workshop on "Road Map for Brick Kiln Sector" in Tamil Nadu	CSE Organizing Programme at Madurai	10.11.2018	2
10	Workshop on "Waste Management Rules 2016" Southern Region Workshop on Waste Management Rules, 2016	Conducted by Ministry of Environment and Forest and Climate Change at Xavier Institute of Management and Entrepreneurship (XIME), Bengaluru.	12.11.2018 to 13.11.2018	3
11	Residential Training Programme on "Design, Organize and Management of Water Quality Monitoring"	CPCB Sponsored Program conducted at Bengaluru	14.11.2018 to 16.11.2018	1
12	Training of Trainers Programme on Integrating Climate Change Adaptation in Development	Conducted by Centre for Climate Change & Adaptation Research, Anna University, Chennai at Mahabalipuram	29.11.2018 to 04.12.2018	1
13	Workshop on "Minamata Covention and Inventorisation of Mercury in India"	Organized by NEERI at IIT Madras, Chennai	04.12.2018 to 05-12-2018	3
14	Implementation of ban on one time use and throw away plastics irrespective of thickness.	Central Institute of Plastics Engineering & Technology	05.12.2018	30
15	Implementation of ban on one time use and throw away plastics irrespective of thickness.	Central Institute of Plastics Engineering & Technology	06.12.2018	30
16	Implementation of ban on one time use and throw away plastics irrespective of thickness.	Central Institute of Plastics Engineering & Technology	07.12.2018	30
17	Implementation of ban on one time use and throw away plastics irrespective of thickness.	Central Institute of Plastics Engineering & Technology	10.12.2018	30

18	Implementation of ban on one time use and throw away plastics irrespective of thickness.	Central Institute of Plastics Engineering & Technology	11.12.2018	30
19	Implementation of ban on one time use and throw away plastics irrespective of thickness.	Central Institute of Plastics Engineering & Technology	13.12.2018	28
20	Litigation Management	Anna Institute of Management, Chennai	10.12.2018 to 12.12.2018	1
21	Planning, Designing, Monitoring and Inspection of Waste Water Treatment Plants and APC Measures	NPC, Ambattur Industrial Estate, Ambattur	12.12.2018 To 14.12.2018	2
22	Air Pollution, Climate Change and Human Health in India	Sri Ramachandra Institute of Higher Education and Research, Porur, Chennai	08.01.2019 to 10.01.2019	2
23	National Conference on Sustainable and Environment friendly Industrial Production Climate Change	MoEF&CC, GOI, New Delhi	15.2.2019	2
24	Urban Air Management Strategies	Centre for Science and Environment (CSE), New Delhi at Anil Agarwal Environment Training Institute (AAETI), Nemili, (Near Alwar), Rajasthan	12.03.2019 to 15.03.2019	2
25	Regional Conference on Safety Management in Industries & Ports; Hazardous Waste Management; Safe Storage, Transportation and Warehousing of Hazchem"	IWMA, Chennai	28.2.2019 to 01.3.2019	2

CHAPTER – 10

ENVIRONMENTAL AWARENESS AND PUBLIC PARTICIPATION

10.1 INTRODUCTION

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. Tamil Nadu Pollution Control Board conducts various types of environmental awareness programmes every year on the following occasions. During the year 2018-2019, the following programmes were conducted.

10.2 WORLD ENVIRONMENT DAY

World Environment Day was established by the United Nations General Assembly in 1972 on the first day of the Stockholm Conference on the Human Environment resulting from discussions on the integration of human interactions and the environment. It has grown to become a global platform for public outreach, with participation from around 143 countries annually. Above all, World Environment Day is the “People’s Day” for doing something to take care of the Earth in Environment.

Each World Environment Day is organized around a theme that focuses attention on a particularly pressing environmental concern. The theme for 2018 is “Beat Plastic Pollution” as announced by the United Nations.

Tamil Nadu Pollution Control Board conducted World Environment Day meeting on 5th June 2018 at Periyar Science and Technology Centre, Kotturpuram under the Chairmanship of the Hon’ble Minister for Environment, Government of Tamil Nadu, in which Member Secretary and other officials from Tamil Nadu Pollution Control Board, Director of Environment and other Senior Officials attended the meeting. A tree plantation programme and a student’s rally involving 200 Nos. of school children on the theme “Avoid throw-away or single-use plastics” from Periyar Science and Technology Centre, Kotturpuram to Children’s Park, Guindy has been conducted. Apart from this all the District Offices of TNPCB celebrated World

Environment Day by conducting awareness programmes and / or campaigns, planting tree saplings in and around the industry premises, schools and colleges by employees, teachers and students etc.

The Hon'ble Chief Minister of Tamil Nadu, on the floor of Assembly has announced on 5th June 2018 that manufacture, storage, sale and use of certain use and throw plastics is banned in the State of Tamil Nadu starting from 1st January 2019. Following the announcement, G.O has been issued vide G.O. (Ms.) No.: 84 dated 25.06.2018 regarding ban on one time use and throwaway plastics irrespective of thickness with effect from 01.01.2019 under Environmental (Protection) Act, 1986. Further continuous awareness programmes are being conducted to avoid plastic carry bags.

In accordance with Solid Waste Management Rules, 2016, Heads of Local Bodies were called for meeting and advised to provide training to waste (rag) pickers. Also, the Principal Secretary, Environment & Forests Department has written to Commissioner of Municipal Administration, Government of Tamil Nadu that the rag pickers who are operating as informal sectors may be recognized and used by the local bodies in suitable manner.

Nilgiris District has been selected for river cleaning purpose. Moyar stretch at Ooty has been selected for litter free river stretch. There is public access for about 10 kilometers stretch on the banks of River Moyar from Mudhumalai Tiger Reserve Bridge to Gudalor and tourists are not allowed for about 50 kilometers stretch in the Reserve Forests area. All steps have been taken in coordination with the officials and NGOs to make the river litter free.

10.3 VINAYAGAR CHATHURTHI

Awareness programmes are conducted through the Collectors in all the district headquarters and towns, not to use Plaster of Paris and paints to make the Vinayagar idols. The Board also monitors water quality of the identified water bodies before and after immersion of idols in specified locations.

10.4 DEEPAVALI

As a part of the awareness campaign to inform the public about the health effects caused by air and noise pollution, due to bursting of crackers continuously, special awareness and monitoring programmes were conducted by TNPCB during

Deepavali in October 2018 along with monitoring of noise level and air quality in cities and major towns in Tamil Nadu. Awareness programmes were conducted, instructing to burst crackers from 6 AM to 7 AM and from 7 PM to 8 PM on the Deepavali day (totally 2 hours only).

In this connection, a fund of Rs.9.75 lakhs was sanctioned to DEEs for conducting awareness programme during Deepavali 2018 festival (Rs.370000/- to 37 District Offices (Rs.10000 per office) and Rs.330000/- to DEE, Chennai). Further, broadcasting the Deepavali awareness slogan for creating awareness through Hello FM on the eve of Deepavali 2018 from 03.11.2018 to 06.11.2018 in 9 cities of Tamil Nadu (Chennai, Trichy, Coimbatore, Madurai, Tirunelveli, Tuticorin, Vellore, Salem and Erode) was carried out at a cost of Rs.368160/-.

The noise level and the ambient air quality surveys were conducted during pre-Deepavali (for 7 days), Deepavali and post-Deepavali days (for 7 days) in Chennai, Trichy, Coimbatore, Madurai, Tirunelveli, Vellore, Salem, Hosur, Tiruppur, Dindigul and Cuddalore. The results were published in the TNPCB website.

10.5 KARTHIGAI MAHADEEPAM

The Plastic Awareness campaign was conducted in Thiruvannamalai Town during the Karthigai Mahadeepam Festival held in November 2018. 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.116000/- was sanctioned to DEE, Thiruvannamalai for conducting the awareness programme during the Karthigai Mahadeepam Festival 2018.

10.6 BHOGI FESTIVAL

Board conducted awareness programmes during Bhogi Festival on January 2019, as not to burn the waste materials such as waste tyres, tubes, plastic materials, cloths etc. in open places. In this regard, to create awareness among public, awareness programme were conducted by all DEEs of TNPCB during Bhogi Festival 2019. Further, awareness through radio was created to the public of Tamil Nadu by Hello FM on the eve of Bhogi 2019 for two days from 13.01.2019 to

14.01.2019 in 9 cities of Tamil Nadu (Chennai, Trichy, Coimbatore, Madurai, Tirunelveli, Tuticorin, Erode, Salem and Vellore) at a cost of Rs.138066/-. Night patrolling during Bhogi was also conducted by the officials of TNPCB throughout the Chennai city so as to avoid burning of tyres, tubes and plastic materials.

A special ambient air quality survey on pre-bhogi and bhogi days were conducted in Chennai at 15 places viz., Kathivakkam, Manali, Thillai Nagar (Kolathur), Tondiarpet, Royapuram, Thiru. Vi. Ka. Nagar, Ambattur, Anna Nagar, Besant Nagar, Thiyagaraya Nagar, Perungudi, Karambakkam, Meenambakkam, Kodambakkam and Shozinganallur.

10.7 FUNDS PROVIDED TO OTHER DEPARTMENTS FOR ENVIRONMENT AWARENESS AND MANAGEMENT

10.7.1 Preparation of Diagnostic Study and Feasibility Report (DSFR) by TWICL

Tamil Nadu Pollution Control Board resolved to approve the proposal to sanction fund of Rs.55 Lakhs (Rupees Fifty Five Lakhs) (excluding GST) to Tamil Nadu Water Investment Company Limited (TWICL) for preparation of Diagnostic Study & Feasibility Report (DSFR) for abatement of water pollution in River Vaigai (Madurai City), River Bhavani (Mettupalayam) and River Cauvery (Srirangam, Kumarapalayam and Pallipalayam). Work order was issued to TWICL. An amount of Rs.2750000/- (50% of the work order value) (excluding GST) towards mobilization advance payment and inception report was released to TWICL.

CHAPTER – 11

VISITS TO THE BOARD BY EXPERTS, IMPORTANT DELEGATES AND PERSON

11.1 VISITS TO THE BOARD BY EXPERTS, IMPORTANT DELEGATES AND PERSON

During this financial year, Senior Officials from Haryana State Pollution Control Board, Chhattisgarh Pollution Control Board and Maharashtra Pollution Control Board have visited the Care Air Centre and Water Quality Watch Centre in the Tamil Nadu Pollution Control Board, Head Office.

CHAPTER – 12

OTHER IMPORTANT MATTERS DEALT WITH BY THE BOARD

12.1 Important issues:

12.1.1 M/s. Tamilnadu Chromates and Chemicals Limited (TCCL), Ranipet:

Status of action taken for the contaminated site of M/s. Tamil Nadu Chromates and Chemicals Ltd., Ranipet

- M/s. Tamil Nadu Chromates and Chemicals Ltd (M/s. TCCL), Ranipet was in operation between 1975 to 1988 as a joint venture with TIDCO and as a Private Limited Company since 1989 and manufactured Chromium components. The unit was not in operation since 1995. About 2.2 Lakh Tonnes of Chromium bearing solid waste was accumulated and dumped at the backyard of the unit's premises on open land over an area of 2 Hectares to a height of 3 to 5 meters.
- The Ministry of Environment, Forest and Climate Change has informed that the above sludge dumping yard could be remediated by utilizing the National Clean Energy Fund. Towards this initiative, 60% of the project cost shall be met by the State Government and 40% by the Central Government. The Chief Secretary to Government requested the MoEF&CC to bear 60% of the project cost as M/s. TCCL is a defunct unit.
- M/s. Environment Resources Management India Limited was entrusted by the Central Government for preparing the detailed study on options of remediation and specification for execution.
- The Principal Secretary to Government of Tamil Nadu vide letter dated 01.08.2018 has conveyed the commitment of the State Government for sanction and release of 60% cost towards the Government share of total project cost which also includes the remediation of the chrome contaminated site of Tamil Nadu Chromates & Chemicals Ltd., Ranipet, Vellore District and cost of preparation of the Detailed Project Report (DPR) and to release 60% i.e., Rs.17825289/- to CPCB towards the cost for preparation of DPR by M/s. ERM India Pvt. Limited.
- The Board has been requested to bear the DPR share which can be adjusted from the amount due to be collected from the Polluter and Government of Tamil Nadu.

- Tamil Nadu Pollution Control Board has also been instructed to trace out TCCL's erstwhile / present directors and to fix responsibility to collect their share of 30% (in addition to G.O.I. share of 40% and State share of 30%), otherwise Tamil Nadu Pollution Control Board will have to bear this cost.
- Directions have been issued on 26.11.2018 to the erstwhile directors and the present directors of the company and TIDCO has also been addressed in this regard vide letter dated: 26.11.2018 to contribute their proportionate share of remediation costs to be incurred in future for the remediation of the site.
- The matter is also being followed up with the Board's Standing Counsel to take further steps to file a case in the Hon'ble National Green Tribunal (NGT).
- The CPCB vide letter dated: 11.01.2019 has furnished the Detailed Project Report at a cost of Rs.19622651/- which includes technical documents and detailed specifications. In the meeting, the Chairman of the Project Steering Committee has clarified that funding under NCEF is not feasible since the NCEF Scheme is discontinued, however MoEF&CC is seeking financial assistance through a Central Grant and that an in-principle commitment from MoEF&CC, Govt. of India is awaited. In the minutes, it is stated that the scope of remediation as outlined in the DPR is accepted by the Project Steering Committee. With regard to funding for execution of remediation works, CPCB may communicate the funding status once the in-principle commitment of Central Government is communicated by MoEF&CC.
- Meanwhile, the Chairman, CPCB and a team of officials from CPCB and TNPCB inspected the hexavalent chrome contaminated site of M/s. TCCL on 01.03.2019. M/s. Environment Resources Management Ltd. made a power point presentation on the following options for remediation during the post inspection meeting.
 1. Permanent measure involving stabilisation of waste and secure landfill (Option 1)
 2. Interim measure involving capping the existing waste dump area (Option 2)
- However, when the Chief Secretary to Government of Tamil Nadu was appraised about the project, the permanent measure involving stabilisation of waste and secure landfill (Option 1) was preferred over the interim measure involving capping the existing waste dump area (Option 2).

- Option 1 involves excavation of the contaminated soil and waste from the site, treatment (chemical reduction and solidification) using acid for pH reduction reducing the Chromium VI to Chromium III and storing it in an on-site landfill as approved by Technical Expert Committee. The Site Specific Target Level (SSTL) for treating Hexavalent Chromium is 128 mg/kg. The SSTL for treatment of ground water is 0.086 mg/l of Hexavalent Chromium. The total capital expenditure for establishing the system for stabilization of wastes and secure landfill with infrastructure for treatment of ground water is around Rs.234.45 Crores. In addition, the OPEX (Operating Expenditure cost) for pumping and treating ground water is estimated to be between Rs.1-1.5 Crores / month.

12.1.2 M/s. Hindustan Unilever Limited (Thermometer Factory) Kodaikanal, Dindigul District

A clinical glass thermometer (containing mercury) factory was established by M/s. Ponds India Limited at Kodaikanal in 1983 and commenced production in January 1984. In March 2001, complaints were received about the improper disposal of mercury contaminated glass scrap to a scrap dealer at Munjilkal in Kodaikanal. In view of the complaint, TNPCB issued closure order to the unit in March 2001.

Based on directions issued by the Board, the scrap from the scrap yard, Effluent Treatment Plant sludge and unused mercury (totally 290.5 tons as Phase – I activity) were exported to the recycler M/s. Bethlehem Apparatus Company at Pennsylvania, USA. This was done during March to May 2003. Thereafter soil remediation work was taken up at site. However, full scale soil remediation work could not be carried out as planned due to cases filed by the NGOs in the Hon'ble High Court and the Hon'ble National Green Tribunal challenging the Site Specific Target Level of 20 mg/kg. The Ministry of Environment, Forests and Climate Change, Government of India vide Office Memorandum dated 28.12.2015 has informed the Board to adhere to the Site Specific Target Level (SSTL) of 20 mg/kg which has all scientific basis for the remediation procedure.

Based on recommendations made by the Scientific Expert Committee, trial runs for soil remediation were conducted between 04.10.2017 to 18.11.2017. The purpose of the trial is to test the efficacy of the pilot plant installed at the site and test the treatability of the contaminated soil at the site. Based on recommendation of the

Scientific Expert Committee, the unit has been permitted vide TNPCB's letter dated 04.06.2018 to commence the soil remediation work by installing and commissioning the new improved version of soil washing plant and mercury vacuum retort for the soil remediation work and soil remediation associated civil works.

12.1.3 Environmental Quality Study In Critically Polluted Areas (CPA)

Comprehensive Environmental Pollution Index (CEPI)

The concept of CEPI was evolved by CPCB during 2009-10. If the CEPI score is greater than 70, then the area is identified as Critically Polluted Areas (CPAs) and if the score is between 60 and 70, the area is identified as Severely Polluted Areas (SPAs).

Ministry of Environment, Forest and Climate Change (MoEF&CC) has identified 88 industrial clusters in the country, of which 43 industrial clusters were identified as Critically Polluted Areas (CPA) based on the Comprehensive Environmental Pollution Index (CEPI). In Tamil Nadu, 7 industrial clusters were identified namely

S. No.	Area	CEPI
1	Vellore – North Arcot	81.79
2	Cuddalore	77.45
3	Manali	76.32
4	Coimbatore	72.38
5	Tiruppur	68.38
6	Mettur	66.98
7	Erode	58.19

The following polluted industrial areas namely 1) Vellore 2) Cuddalore 3) Manali and 4) Coimbatore are identified as critically polluted areas based on the CEPI score (CEPI > 70). As per moratorium, establishing new industries and expansion of existing industries in the CPA is not permitted.

Action plan for lifting the moratorium by reducing the CEPI was prepared in November 2010 by TNPCB and was submitted to CPCB. Based on the implementation of the action plan, moratorium was lifted vide Office Memorandum dated: 31.03.2011, 17.09.2013 to three CPAs namely 1) Cuddalore 2) Coimbatore and 3) Manali industrial clusters except Vellore – Ranipet, SIPCOT Industrial Complex. In Ranipet, the major concern is the storage of chromium bearing hazardous waste in an unscientific manner by the defunct unit of M/s. Tamilnadu Chromates and Chemicals Limited.

In addition to the existing CPAs, CPCB has identified Tuticorin – SIPCOT Industrial Area also as a Polluted Industrial Area (PIA) in Tamil Nadu for monitoring, sampling and analysis of AAQ, surface water quality and ground water quality. Number of CPAs in Tamil Nadu have thus become 8 and the list is as follows

1. Vellore
2. Cuddalore
3. Manali
4. Coimbatore
5. Tiruppur
6. Mettur
7. Erode
8. Tuticorin - SIPCOT Industrial Area

Central Pollution Control Board vide letter dated 26.04.2016 directed SPCB to undertake environmental quality monitoring in the polluted areas falling under their jurisdiction through an outside third party agency (Laboratory) recognised under Environmental Protection Act, 1986 and accredited under NABL. The frequency of the monitoring shall be twice in a year i.e. post-monsoon and pre-monsoon and the report shall be sent to CPCB in turn to submit to MoEF and the monitoring study includes samplings, analysis of surface and sub surface water and ambient air quality.

Based on the above, TNPCB issued work order to M/s. Chennai Testing Laboratory Private Limited, Chennai vide letter dated: 28.02.2017 for conducting Environmental Quality Monitoring in Critically Polluted Areas subject to certain terms and conditions therein during pre-monsoon and post-monsoon season. The report of analysis of AAQ, surface water and ground water for the sample collected from 1) Vellore – Ranipet, SIPCOT Industrial Complex, 2) Cuddalore - SIPCOT Industrial Complex, Phase I & II, 3) Manali, Manali Industrial area and 4) Coimbatore – SIDCO – Kurichi industrial cluster was also uploaded in the TNPCB's website on 21.12.2017 and the same was intimated to CPCB.

The O/o. JCEE (M), Vellore has evaluated the CEPI score for SIPCOT Industrial Complex, Ranipet during pre-monsoon and post-monsoon period 2017. The CEPI Score has been estimated as 65.37 for pre-monsoon period and as 49.70 for post-monsoon period for SIPCOT Industrial Complex, Ranipet, which is found to be less than 70. Hence, TNPCB addressed CPCB to examine the evaluation done

by O/o. JCEE (M), Vellore and to consider, lifting the moratorium for Ranipet, SIPCOT Complex.

Central Pollution Control Board has carried out sampling and analysis of AAQ, surface water quality and ground water quality separately and has determined the CEPI for Polluted Industrial Areas (PIA) in Tamil Nadu. Central Pollution Control Board has been requested to share the data so that TNPCB could prepare the action plan for the PIAs based on CPCB's report for the year 2018-2019.

Meanwhile, as per the Hon'ble National Green Tribunal Order dated 13.12.2018, in the matter of O.A. No.: 1038 / 2018, action plan report is to be submitted for 8 Polluted Industrial Areas of Manali, Cuddalore, Coimbatore, Vellore, Salem, Tiruppur, Erode and Thoothukudi within a month from the date of Order. Now in Hon'ble National Green Tribunal Order dated 23.04.2019 in the matter of OA No.: 606 / 2018 (O.A. No.: 1038 / 2018 included in OA No.: 606 / 2018) has directed that, "A quarterly report on the progress of management of Solid Wastes, Plastic Wastes, Bio-Medical Wastes, Polluted River stretches, Air Quality Management, ETP, CETP, STPs and including industrial clusters be furnished by the Chief Secretary, every three months and the first such report shall be furnished by July 25, 2019".

12.2 ANNOUNCEMENT DETAILS 2018-2019

Status of the announcements made by the Hon'ble Minister for Environment, during the month of June 2018 on the floor of Assembly is as follows

1. Construction of two new office buildings to the District Offices of TNPCB (Tiruppur South and Gummidipoondi) at a cost of Rs.4 crores.

Tiruppur (South)

Land (25 cents) identified. Government Order issued vide G.O. (Ms.) No.: 166, dated: 14.06.2019. Land allotted by Revenue and Disaster Management Department. District Collector has requested for transfer of land to TNPCB.

Gummidipoondi

Estimation cost of Rs.192.5 Lakhs approved by Board. Work order issued on 31.07.2018 to PWD. 90% of the amount (i.e. 173 lakhs) released to PWD on 10.08.2018. Boomi Pooja conducted on 09.11.2018. 90% of works completed. Remaining works are under progress. Announcement under progress.

2. Formation of one more new District Environmental Engineer's Office for Chennai District at a cost of Rs.1.30 crores

As per Board Resolution No.: 275-1-17, Board has allowed to withdraw the proposal of formation of two new District Offices in Chennai District. Government in E&F Department has disposed the action taken against the announcement. Announcement disposed off.

3. Formation of TNPCB new Zonal Office for Chennai South under the head of Joint Chief Environmental Engineer at a cost of Rs.90 lakhs

As per Board Resolution No.: 275-1-24, Board has allowed to withdraw the proposal of formation of new Zonal Office for Chennai South. Government in E&F Department has disposed the action taken against the announcement. Announcement disposed off

4. Establishing Video Conferencing facility between TNPCB Head Office and all District Offices to conduct review meetings at a cost of Rs.3.25 Crores

Board has approved the proposal in Board meeting held on 25.07.2018 and the Board Proceeding No.: 22, dated 30.07.2018 was issued. An amount of Rs.2.56 Crores was released to ELCOT. Installation of video conferencing facility was completed in 38 district offices. Announcement completed

5. Green award to recognized residential welfare associations in Greater Chennai Corporation area at a cost of Rs.5 lakhs

Board has approved the proposal for presenting Green Awards to recognized residential welfare associations and gated communities at a cost of Rs.5 lakhs during the Board meeting held on 25.07.2018. Board Proceeding No.: 25, dated 30.07.2018 was issued. Notification for calling proposal for Green Award 2018 was uploaded in the website on 10.08.2018 with validity up to 31.12.2018. Expert Committee was formed vide Proceeding dated: 05.10.2018. Announcement completed

6. Under Urban Forestry Programme, tree plantation will be done in 10 acres of Government land in Chennai sub-urban area at a cost of Rs 1.75 Crores.

Besides 25000 tree saplings will also be given to the members of the public at free of cost in all the districts at a cost of Rs 0.25 Crores.

Board has approved the proposal in Board meeting held on 25.07.2018. Board Proceeding No.: 23, dated 30.07.2018 was issued. MOU was signed between CMWSSB and TNPCB, regarding creation of urban forestry to an extent of 4 acres at Kilpauk water treatment plant. Financial concurrence and approval of the Board is awaited. Announcement under progress.

7. Providing LCD projector to 200 Government Higher Secondary Schools at a cost of Rs.0.80 Crore

Board has approved the proposal at a total cost of Rs.71.22 Lakhs during the Board meeting held on 25.07.2018. Board Proceeding No.: 22, dated 30.07.2018 was issued. An amount of Rs.71.22 lakhs was released to ELCOT. LCD projectors were delivered and installed in 200 Government Higher Secondary Schools. Announcement completed

8. Health check up for TNPCB employees of above 45 years of age annually and below 45 years of age once in 2 years at a cost of Rs.15 lakhs every year

Board has approved the proposal at a cost of Rs.15 Lakhs per year. Board Proceeding No.: 28, dated 30.07.2018 was issued. Circular memo dated 31.07.2018 was issued to all the districts. Announcement completed

12.3 GREEN AWARDS

As per the announcement made in the Legislative Assembly during the year 2011-12, Tamil Nadu Pollution Control Board issues Green Awards to District Collectors and Industries every year, since 2011, for their contribution in the field of environment and awareness creation. During the year 2017-18, it was planned by the Honourable Chief Minister of Tamil Nadu, to give Green Awards to educational institutions also besides giving to District Collectors and industries and during this financial year 2018-19, it has been planned by the Honourable Chief Minister of Tamil Nadu to give Green Awards to Residential Welfare Associations and to issue Special Awards to the Regional Coordinators and District Collectors for effective implementation of plastic ban in Tamil Nadu.

Awards were issued to the following District Collectors, Industries, Educational Institutions, Residential Welfare Associations and to the Regional Coordinators and District Collectos for future implementation of Plastic ban in Tamil Nadu by the Hon'ble Chief Minister of Tamil Nadu on 13.06.2019.

District Collectors

1	Tmt. J. Innocent Divya, I.A.S, District Collector, The Nilgiris.
2	Thiru. K. Veera Raghava Rao, I.A.S, District Collector, Madurai. (Presently District Collector, Ramanathapuram)
3	Thiru. Sandeep Nanduri, I.A.S, District Collector, Tirunelveli. (Presently District Collector, Thoothukudi)

Industries

1	M/s. Adani Marine Infrastructure Developer Private Limited, Nungambakkam, Chennai
2	M/s. Jeyavishnu Tex Processors Private Limited, Tiruppur District
3	M/s. Ramco Cements Limited, Virudhunagar District

Educational Institutions

1	Sri Venkateswara College of Engineering, Sriperumbudur Taluk
2	MEPCO Schlenk Engineering College, Virudhunagar District
3	Ramco Vidyalaya, Virudhunagar District

Residential Welfare Association

1	The Central Park South, ELCOT Avenue, Sholinganallur.
2	Sabari Terrace Apartment Owners Association, OMR, Chennai
3	Ceebros Boulevard, 3/381 Rajiv Gandhi Salai, Mettukuppam, OMR, Chennai – 600097.
4	Ramaniyam Eden, 46/1, Velachery Main Road, Velachery, Chennai – 600042.
5	TAKSRA Association, Mandaiveli, Chennai – 28

Special Awards to Regional Coordinators and District Collectos for future implementation of Plastic ban in Tamil Nadu

1	Tmt. P. Amudha, I.A.S., Principal Secretary / Commissioner of Food Safety & Drug Administration
2	Dr. Santhosh Babu, I.A.S., Principal Secretary to Government, Information Technology Department
3	Thiru. Rajendra Ratnoo, I.A.S., Commissioner, Disaster Management
4	Tmt. Shilpa Prabhakar Satish, I.A.S., District Collector, Tirunelveli

12.4 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, Government of India or SEIAA. During the period April 2018 to March 2019, public hearings were conducted for 34 projects.

S. No.	Name and address of the project	Project Details	Date
1	Coastal Zone Management (CZM) Plan under CRZ Notification, 2011 with map / sheet nos.: 9 to 13 with respect to Tirunelveli District.	The CZM Plan under CRZ Notification 2011 with map / sheet nos.: 9 to 13 with respect to Tirunelveli District.	12.04.2018
2	Coastal Zone Management Plan under CRZ Notification, 2011 with map / sheet nos. 79 to 88 with respect to Cuddalore District.	The CZM Plan under CRZ Notification, 2011 with map / sheet nos.: 79 to 88 with respect to Cuddalore District.	18.04.2018
3	Coastal Zone Management Plan under CRZ Notification, 2011 with map / sheet nos.: 26 to 54 with respect to Ramanathapuram District.	The CZM Plan under CRZ Notification, 2011 with map / sheet nos.: 26 to 54 with respect to Ramanathapuram District.	19.04.2018
4	M/s. Chennai Port Trust, Tondiarpet & Purasaivakkam Taluk, Chennai District.	Development / Improvement of 7 infrastructure facilities in Chennai Port's premises comprising of the following 1) Improvement to the existing Jawahar Dock (East) Berth for handling bulk cargoes – Modernization 2) Improvement to the existing Bharathi Dock – II berth for handling bulk cargoes – Modernization 3) Relocation of existing Sand Trap and Captial Dredging – change in location 4) Development of multilevel car parking facility (5000 cars) – New 5) Development of Coastel Terminal (1 MTPA) at northen sheltering arm east of Bharathi dock turning circle – New 6) Development of Dry Dock facility in the Boat Basin / timer pond area – New 7) Development of storage sheds and tank farms as per the land use plan of Chennai port – New.	24.04.2018
5	M/s. Chennai Airport (Phase – II), Pammal, Pozhichalur, Pazhavanthangal, Nandambakkam, Meenambakkam Villages, Alandur Taluk, Kanchipuram District.	Proposed modernization of Chennai Airport (Phase – II), Pammal, Pozhichalur, Pazhavanthangal, Nandambakkam, Meenambakkam Villages, Alandur Taluk, Kanchipuram District.	25.04.2018
6	Coastal Zone Management Plan under CRZ Notification, 2011 with map / sheet nos.: 93, 95 to 103 with respect to Kanchipuram District.	The CZM Plan under CRZ Notification, 2011 with map / sheet nos.: 93, 95 to 103 with respect to Kanchipuram District.	28.04.2018
7	Coastal Zone Management Plan under CRZ Notification, 2011 with map / sheet nos.: 66 to 80 and 82 with respect to Nagapattinam District.	The CZM Plan under CRZ Notification, 2011 with map / sheet nos.: 66 to 80 and 82 with respect to Nagapattinam District.	27.04.2018

8	Coastal Zone Management (CZM) Plan under CRZ Notification, 2011 with map / sheet nos.: 52 to 60 with respect to Pudukottai District.	The CZM Plan under CRZ Notification, 2011 with map / sheet nos.: 52 to 60 with respect to Pudukottai District.	25.04.2018
9	Coastal Zone Management Plan under CRZ Notification, 2011 with map / sheet nos.: 59 to 64 with respect to Thanjavur District.	The CZM Plan under CRZ Notification, 2011 with map / sheet nos.: 59 to 64 with respect to Thanjavur District.	25.04.2018
10	Coastal Zone Management Plan under CRZ Notification, 2011 with map / sheet nos.: TN 089 to TN 096 with respect to Villupuram District.	The CZM Plan under CRZ Notification, 2011 with map / sheet nos.: TN 089 to TN 096 with respect to Villupuram District.	26.04.2018
11	M/s. National Highways Authority of India (NHA), Srirangam Taluk, Trichy District.	Proposed realignment of Trichy – Karur Bye-pass starting from NH45B (Trichy – Madurai Road) Junction from 0+000 km and ends at 7+941 km near Thayanur Village by NHA under NHDP Phase III.	26.04.2018
12	Coastal Zone Management Plan under CRZ Notification, 2011 with map / sheet nos.: 108 to 115 with respect to Tiruvallur District.	The CZM Plan under CRZ Notification, 2011 with map / sheet nos.: 108 to 115 with respect to Tiruvallur District.	27.04.2018
13	Coastal Zone Management Plan under CRZ Notification, 2011 with map / sheet nos.: 102 to 109 with respect to Chennai District.	The CZM Plan under CRZ Notification, 2011 with map / sheet nos.: 102 to 109 with respect to Chennai District.	27.04.2018
14	Coastal Zone Management Plan under CRZ Notification, 2011 with map / sheet nos.: TN 001 to TN 009 with respect to Kanyakumari District.	The CZM Plan under CRZ Notification, 2011 with map / sheet nos.: TN 001 to TN 009 with respect to Kanyakumari District.	27.04.2018
15	Coastal Zone Management Plan under CRZ Notification, 2011 with map / sheet nos.: 13 to 27 with respect to Thoothukudi District.	The CZM Plan under CRZ Notification, 2011 with map / sheet nos.: 13 to 27 with respect to Thoothukudi District.	28.04.2018
16	Coastal Zone Management Plan under CRZ Notification, 2011 with map / sheet nos.: 62 to 66, 70 and 71 with respect to Thiruvarur District.	The CZM Plan under CRZ Notification, 2011 with map / sheet nos.: 62 to 66, 70 and 71 with respect to Thiruvarur District.	30.04.2018
17	M/s. SIPCOT Integrated Textile, Manakudi Village, Thiruvadanai Taluk, Ramanathapuram District.	Proposed Integrated Textile, Manakudi Village, Thiruvadanai Taluk, Ramanathapuram District.	05.06.2018
18	M/s. The India Cements Limited, Kallurani, Muthuramalingapuram and Narttampatti Village, Aruppukottai Taluk, Virudhunagar District.	Fresh mining proposal for quarrying of Limekankar & Clay (others) over an extent of 479.195 Ha. of patta lands.	26.06.2018
19	The Divisional Engineer, Highways Department, Construction & Maintenance, 2A, Periyar Nagar, Chengalpattu – 603 001	Forming of Chennai Peripheral road connecting Pooneri junction in Mahabalipuram to Ennore Port (Via) Singaperumalkoil – Sriperumbudur – Thiruvallur – Tamaraiykkam – Periyapalayam – Puduvoyal and Kattupalli by Highways Department, Govt. of Tamil Nadu.	10.07.2018
20	Forming of Chennai Peripheral road connecting Pooneri junction in Mahabalipuram to Ennore Port (Via) Singaperumalkoil-Sriperumbudur – Thiruvallur – Tamaraiykkam – Periyapalayam – Puduvoyal and Kattupalli by Highways Department, Government of Tamil Nadu (for the stretches falling in Tiruvallur District).	Forming of Chennai Peripheral road connecting Pooneri junction in Mahabalipuram to Ennore Port (Via) Singaperumalkoil – Sriperumbudur – Thiruvallur – Tamaraiykkam – Periyapalayam – Puduvoyal and Kattupalli by Highways Department, Government of Tamil Nadu (for the Stretches falling in Tiruvallur District).	12.07.2018

21	M/s. New Integrated Terminal Building and Apron within the existing Trichy Airport, K.Sathanoor and Kottapattu villages of Trichy East Taluk and Kilakurichy Village of Thiruverumbur Taluk, Trichy District.	M/s. New Integrated Terminal Building and Apron within in the existing Trichy Airport, K.Sathanoor and Kottapattu villages of Trichy East Taluk and Kilakurichy Village of Thiruverumbur Taluk, Trichy District.	25.07.2018
22	M/s. Chettinad Cement Corporation Private Limited for the proposed Periyathirukonam Limestone Mine over an extent of 32.295 Hectares with 0.5004 MTPA of limestone production at S.F. No.: 153/16, 153/17, 153/18 etc. of Periyathirukonam Village, Ariyalur Taluk, Ariyalur District – 621 701.	M/s. Chettinad Cement Corporation Private Limited for the proposed Periyathirukonam Limestone Mine over an extent of 32.295 Hectares with 0.5004 MTPA of limestone production at S.F. No.: 153/16, 153/17, 153/18 etc., of Periyathirukonam Village, Ariyalur Taluk, Ariyalur District – 621 701.	31.08.2018
23	M/s. Tamil Nadu Newsprint and Papers Limited, Unit – II, Proposed expansion project – Printing and Writing paper machine along with a new chemical hard wood pulp mill, chemical recovery, power plant and utilities at Mondipatti Village, Manapparai Taluk, Tiruchirappalli District.	M/s. Tamil Nadu Newsprint and Papers Limited, Unit – II, Proposed expansion project – Printing and Writing paper machine along with a new chemical hard wood pulp mill, chemical recovery, power plant and utilities at Mondipatti Village, Manapparai Taluk, Trichy District.	06.09.2018
24	M/s. Dindigul Steel Rolling Mills Private Limited, Kulathur Village, Vedasandur Taluk, Dindigul District.	Proposed expansion to produce 74,100 TPA of MS Billets and modernization of existing Steel Rolling Mill. Products: 1. MS Billets – 74100 Tons Per Annum 2. TMT bars – 48000 Tons Per Annum	28.09.2018
25	M/s. Sree Bhavani Dyeing Cluster Development Limited, R.S. No.: 14/9, 11/1, 13/5, 13/2, 14/7. 13/3, 13/4, 14/8 of Andikulam Village, Bhavani Taluk, Erode District.	M/s. Sree Bhavani Dyeing Cluster Development Limited, R.S. No.: 14/9, 11/1, 13/5, 13/2, 14/7, 13/3, 13/4 and 14/8 of Andikulam Village, Bhavani Taluk, Erode District.	03.10.2018
26	M/s. NLC India Limited, Mine – III, Opencast Lignite Mine project (11.50 MTPA)	Mine – III Open cast Lignite Mine project (11.50 MTPA) project site at U-Kulappakkam, Arasakuzhi, Ko-Adhanur, Peruvapuram, Perundurai, Ottimedu, Kottumulai Siruvapur, Ka.Puthur, Sathappadi, Dharmanallur, Vilakkapadi, U-Agaram, U-Adhanur, Gopalapuram, Kammapuram, Su-Keeenanur, Kumarapalayam Villages, Virudhachalam Taluk and Chinna Nerkunam, Valayamadevi Kilpathy, Agaraalambadi, B-Adhanur, Periyankunam, Erumbur, Valayamadevi Melpathy, Veera-mudaiyanatham Villages, Bhuvanagiri Taluk, Cuddalore Dist.	11.12.2018

27	M/s. Indian Oil Corporation Limited, (Indane Bottling Plant) Establishment of bulk LPG Storage & Bottling facility at Plot No.: B37/pt to B43/pt, B50/pt, B51/pt, C30 to C41, C42pt, C27pt, SIPCOT Industrial Growth Centre, Gangaikondan Village, Tirunelveli Taluk, Tirunelveli District.	Establishment of bulk LPG Storage & Bottling facility at Plot No.: B37/pt to B43/pt, B50/pt, B51/pt, C30 to C41, C42pt, C27pt, SIPCOT Industrial Growth Centre, Gangaikondan Village, Tirunelveli Taluk, Tirunelveli District.	14.12.2018
28	M/s. Bharat Petroleum Coporation Limited, LPG Bottling Plant located at Meelavittan Village, Thoothukudi Taluk, Thoothukudi District.	Proposed expansion of LPG Bottling Plant located at Meelavittan Village by another three numbers of 300 MT capacities mounted LPG Storage Bullets.	18.12.2018
29	M/s. Indian Oil Corporation Ltd, Mattaparai Village, Kalladipatti Post, Nilakottai Taluk, Dindigul District.	Proposed expansion to increase the Bottling capacity of LPG upto 22500 MT / M. Increase the storage capacity: 1) LPG Bottling – upto 22500 MT / M.	22.01.2019
30	M/s. Black Granite Mining Project of M/s. Kodakkal Black Granite Quarry – by TAMIN, S.F. No.: 1193/1 (part), Kodakkal Village, Walajah Taluk, Vellore.	Proposed Black Granite Quarry of 24.30.00 Hectares.	23.01.2019
31	M/s. V.V. Cements Private Limited, S.F. No.: 411/9, 411/10, etc. Vayalur village, Krishnarayapuram Taluk, Karur	Proposed to establish a 600 TPD Pyro process Cement plant.	29.01.2019
32	M/s. Tamil Nadu Minerals Ltd. (TAMIN) - Thandrapattu Black Granite Quarry, S.F. No.: 4/2 & 4/37 of Thandrapattu Village, Thandrapattu Taluk, Tiruvannamalai District.	Black Granite Mining	24.01.2019
33	M/s. Tamil Nadu Minerals Limited (TAMIN), Black Granite Quarry, S.F. No.: 883 (Part) of Ajjanahalli Village, Pennagaram Taluk, Dharmapuri District – 636 810	Black Granite Quarry (Mining)	20.02.2019
34	M/s. Tamil Nadu Minerals Ltd. (Arasiramani Colour Granite Quarry), S.F. No.: 516/1, 518/4 & 534, Arasiramani village, Sankagiri Taluk, Salem District.	Proposed mining of saleable quantity of colour granite – 18162 m ³ over an extent of 16.12 Ha.	21.02.2019

12.5 COMPLAINT CELL

12.5.1 General online complaints

Due to increased environmental awareness and awareness on pollution control legislation, several complaints are being received from various individuals / organizations / NGOs etc. regarding water, air and noise pollution. To take appropriate action against these complaints, an active 'Complaint Cell' is functioning in TNPCB, Head Office, Chennai on all working days. 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 calling reports along with the recommendations from the field officers of the Board. Required action is taken then and there based on the reports. As a part of e-governance, TNPCB has introduced online grievance petition redressal system (www.pcbolgprs.in) from 1st March 2016 onwards. Complaints on

environmental pollution due to industries can be registered online. The complaint status can be tracked online.

During the period, April 2018 to March 2019, 3103 complaints were received online by TNPCB. These complaints were investigated and disposed off.

12.5.2 CM Cell and Amma Call Centre Petitions

Tamil Nadu Pollution Control Board has established a separate section in its Head Office to take immediate action on petitions received through CM Cell and Amma Call Centre. CM Cell Petitions are disposed off within 15 days and Amma Call Centre petitions are disposed off within 7 days. From 1st April 2018 to 31st March 2019, 339 CM Cell petitions and 410 Amma Call Centre petitions were received and disposed off.

12.6 Construction Wing

Tamil Nadu Pollution Control Board is having a construction wing at its Head Office which is coordinating with new building construction works, maintenance work to the existing buildings, installation of air conditions, D.G sets etc., to the TNPCB's own buildings located all over Tamil Nadu.

Tamil Nadu Pollution Control Board has 38 District Offices in the State and one Head Office at Chennai. Tamil Nadu Pollution Control Board's Head Office is functioning in its own building. Among the 38 District Offices, the Board has its own building for 23 offices. Offices of the JCEEs (M) and the laboratories are housed in the respective district office buildings.

The Status of 38 District Office buildings are as follows:

Functioning in the Own buildings (23 locations)	Ambattur, Chennai, Coimbatore (North), Cuddalore, Dindigul, Erode, Hosur, Maraimalai Nagar, Madurai, Namakkal, Perundurai, Pudukottai, Sivagangai, Sriperumbudur, Thanjavur, Trichy, Thoothukudi, Tirunelveli, Vaniyambadi, Vellore, Villupuram, Virudhunagar and Coimbatore (South).
Building under construction (5 locations)	Tiruvallur, Nagapattinam, Tiruvannamalai, Salem and Gummdipoondi
Building Plan / Estimate under preparation (3 locations)	Ariyalur, Tiruppur (North) and Dharmapuri
Land Identification / Procurement under process (7 locations)	Theni, Ramanathapuram, Tiruppur South, Ooty, Nagarcoil, Karur and Kumarapalayam

12.7 GRIEVANCE REDRESSAL CENTRE

Tamil Nadu Pollution Control Board has established a Grievance Redressal Centre in its 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. It is functioning from 08.02.2018 onwards and can be contacted on the phone number 044-2235 3154.

12.8 RIGHT TO INFORMATION ACT

The Parliament passed the Right to Information Act, 2005 to enable all citizens to use their fundamental right to access information from public bodies. Tamil Nadu Pollution Control Board is having a separate cell to deal with RTI, Act applications. In pursuance to the directions of Government of Tamil Nadu, TNPCB designated the Additional Chief Environmental Engineer as State Information Officer (Appellate Authority) and the Joint Chief Environmental Engineer in the Corporate Office and 38 District Officers are designated as Public Information Officers to provide information to the person requesting information under the Right to Information Act, 2005. During the year 2018-2019, Board has received 1836 applications seeking information and provided the information.

12.9 LIBRARY

Tamil Nadu Pollution Control Board's library was established on November 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, Municipal 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 used to refer the library. Readers are not only from Chennai but also from all over Tamil Nadu and from neighboring States visit the library. During the year 2018-2019, 672 numbers of research scholars and public have visited the library.

12.10 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. Tamil Nadu Pollution Control Board receives Environmental Statements from the 17 category of highly polluting industries, assesses their water and energy consumption and their efforts in reducing the pollution levels.

12.11 GOVERNMENT EXHIBITIONS

Tamil Nadu Pollution Control Board actively participates in the Government exhibition conducted every year at Island Grounds in Chennai by providing stalls and exhibits models on Effluent Treatment Plants, Air Pollution Control Measures, Solid Waste Management and other information on Environmental Protection.

In the year 2018-19, TNPCB participated in the Government exhibitions held in Tirunelveli, Madurai, Coimbatore, Salem, Cuddalore, Sivagangai, Vellore,

Sriperumbudur, Erode and Trichy. Large number of students and people visited the stalls and were benefited.

12.12 FUNDS TO INDIAN INSTITUTE OF TECHNOLOGY, MADRAS

The Theme six of the Tamil Nadu Vision 2023 (Volume I) targets that Tamil Nadu will be known as the innovation hub and knowledge capital of India, on the strength of world class institutions in various fields and the best human talent. The key enablers that facilitate innovation and knowledge creation are:

- Availability of a dynamic information architecture
- Skilled workforce
- Knowledge ecosystem comprising of research organizations, universities, think tanks and business organizations that focus on converting information into knowledge and create new knowledge.

The Tamil Nadu Vision 2023 envisages the establishment of Centers of Excellence (CoEs) in the following areas to foster innovation and knowledge creation:

1. Automotive technologies
2. Non-Communicable diseases
3. Agricultural practices
4. Water resources management
5. Nano technology
6. Solar and clean energy technologies
7. Biotechnology
8. Basic Sciences
9. Social Sciences
10. Construction Engineering
11. Aerospace

Under this initiative, the Government will take the lead in establishing Centre of Excellence for each of the sectors identified by upgrading existing centers of research and higher learning (where such a centre exists) and by establishing new centres. The CoEs 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. It is also envisaged that the CoEs will be developed on a Public–Private–Partnership (PPP) model, with funding and participation by the industries concerned.

Tamil Nadu Infrastructure Development Board took an initiative in coordinating with the academicians and the stakeholders and the Government in Finance (Infrastructure) Department has issued G.O. Ms. No.: 79, dated 30.3.2017 for Establishment of Centre for Urbanization, Buildings and Environment (CUBE) at Indian Institute of Technology – Madras, Chennai with funding support from the implementing agencies. Tamil Nadu Pollution Control Board is one of the implementing agencies and has shared an amount of Rs.3.00 Crores as approved in B.P. No.: 47, dated: 22.08.2017

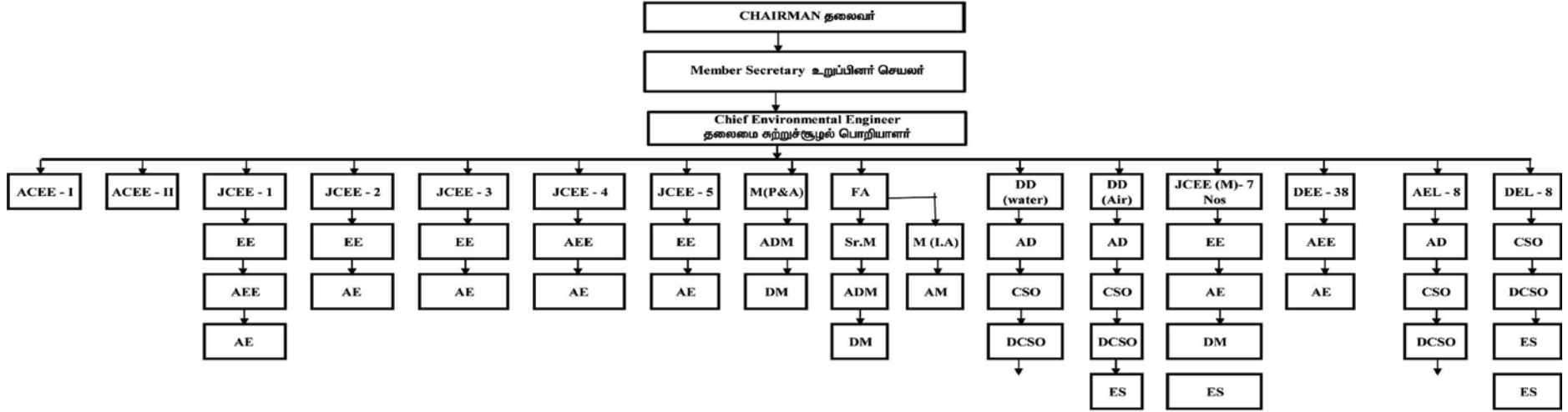
12.13 SUSTAINABLE DEVELOPMENT GOALS

The Sustainable Development Goals (SDGs) are an inter-governmentally agreed set of targets relating to international development to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. SDGs cover 17 goals and 169 targets resolved in the UN Summit held in September 2015. India is a signatory of the 2030 Agenda, committed to achieve SDGs.

Under Target 12.4, TNPCB proposes to increase the ambient air quality monitoring stations from 38 stations to 63 stations by adding 25 New CAAQMS in the year 2019-20, covering the State. Under water quality monitoring programme, TNPCB proposes to increase the number of stations from 63 to 79 by adding 16 new stations in the year 2019-20, to monitor the water quality of water bodies in the State.

Annexures

ANNEXURE - 1A இணைப்பு 1அ
ORGANISATION CHART நிறுவன அமைப்பு



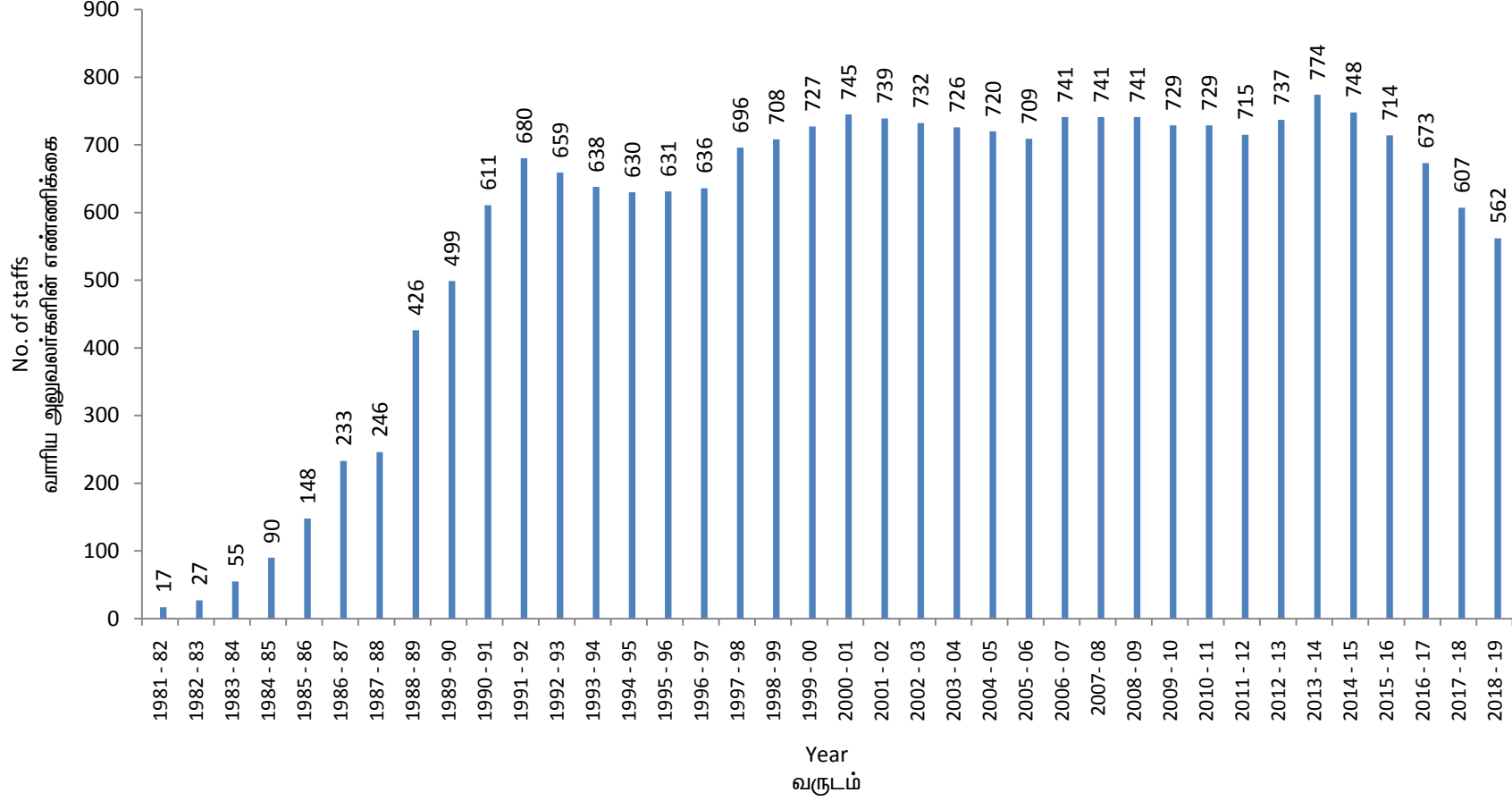
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|----------|---|---|------|---|--|
| ACEE | - | Additional Chief Environmental Engineer, கூடுதல் தலைமை சுற்றுச்சூழல் பொறியாளர் | DD | - | Deputy Director இணை இயக்குனர் |
| JCEE | - | Joint Chief Environmental Engineer இணை தலைமை சுற்றுச்சூழல் பொறியாளர் | AD | - | Assistant Director உதவி இயக்குனர் |
| JCEE (M) | - | Joint Chief Environmental Engineer (Monitoring) இணை தலைமை சுற்றுச்சூழல் பொறியாளர் | CSO | - | Chief Scientific Officer தலைமை விஞ்ஞான அலுவலர் |
| EE | - | Environmental Engineer சுற்றுச்சூழல் பொறியாளர் | DSCO | - | Deputy Chief Scientific Officer தலைமை விஞ்ஞான அலுவலர் |
| DEE | - | District Environmental Engineer மாவட்ட சுற்றுச்சூழல் பொறியாளர் | ES | - | Environmental Scientist சுற்றுச்சூழல் விஞ்ஞானி |
| AEE | - | Assistant Environmental Engineer உதவி சுற்றுச்சூழல் பொறியாளர் | AEL | - | Advanced Environmental Laboratory மேம்படுத்தப்பட்ட சுற்றுச்சூழல் ஆய்வகம் |
| AE | - | Assistant Engineer உதவி பொறியாளர் | DEL | - | District Environmental Laboratory மாவட்ட சுற்றுச்சூழல் ஆய்வகம் |
| FA | - | Financial Advisor நிதி ஆலோசகர் | | | |
| Sr.M | - | Senior Manager முழுநிலை மேலாளர் | | | |
| M(P&A) | - | Manager (Personnel & Administration) மேலாளர் (பணி மற்றும் நிர்வாகம்) | | | |
| M (I.A) | - | Manager (Internal Audit) மேலாளர் (உள் தணிக்கை) | | | |
| DM | - | Deputy Manager துணை மேலாளர் | | | |
| ADM | - | Additional Manager கூடுதல் மேலாளர் | | | |

ANNEXURE - 1B

இணைப்பு - 1ஆ

STAFF STRENGTH OF TNPCB - YEAR WISE

வாரிய அலுவலகங்களின் எண்ணிக்கை - வருட வாரியாக

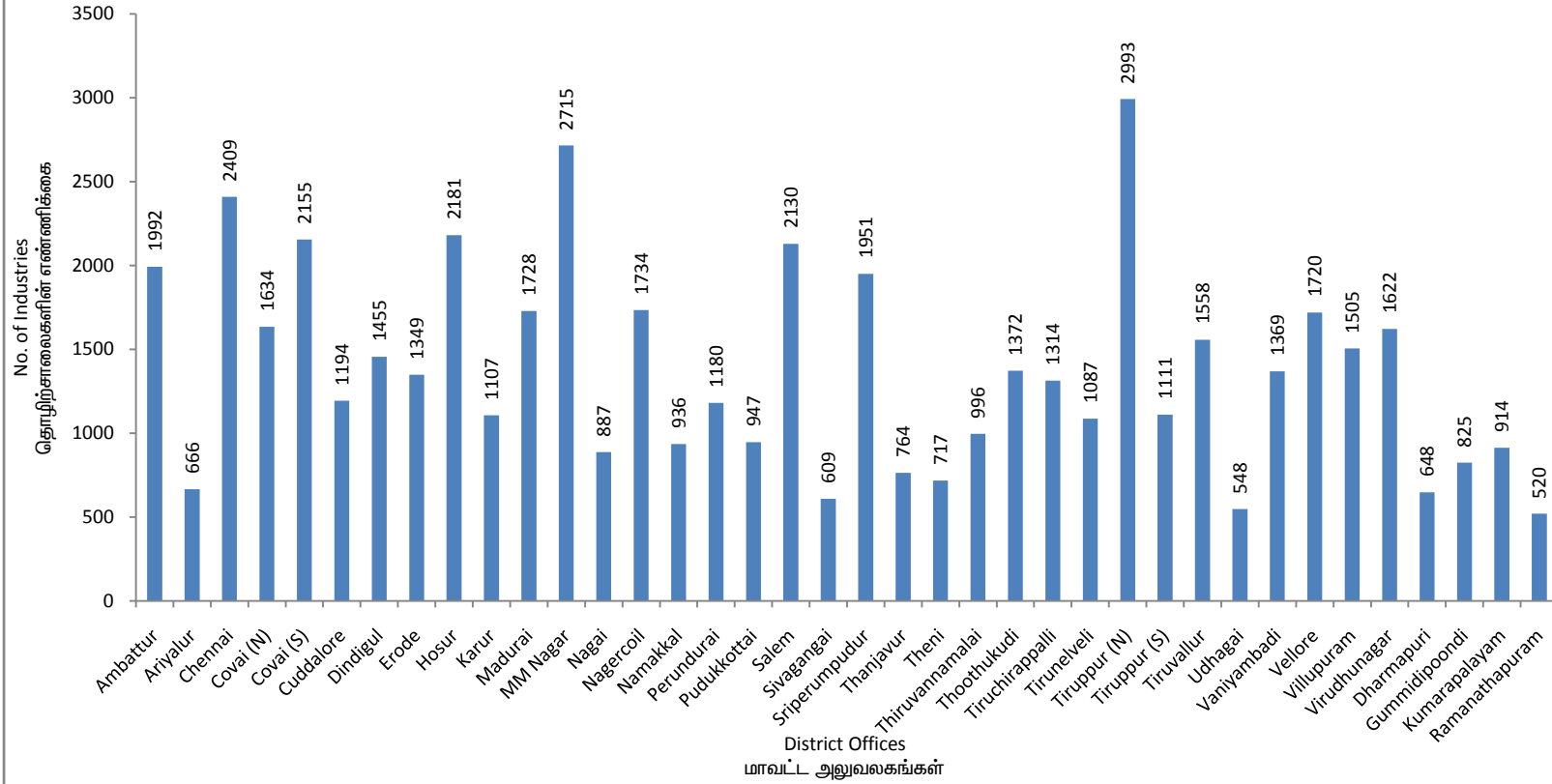


ANNEXURE - 2

இணைப்பு - 2

NUMBER OF INDUSTRIES UNDER THE PURVIEW OF TNPCB - DISTRICT OFFICE WISE

வாரிய ஆளுகையின் கீழ் உள்ள தொழிற்சாலைகளின் எண்ணிக்கை - மாவட்ட அலுவலகம் வாரியாக

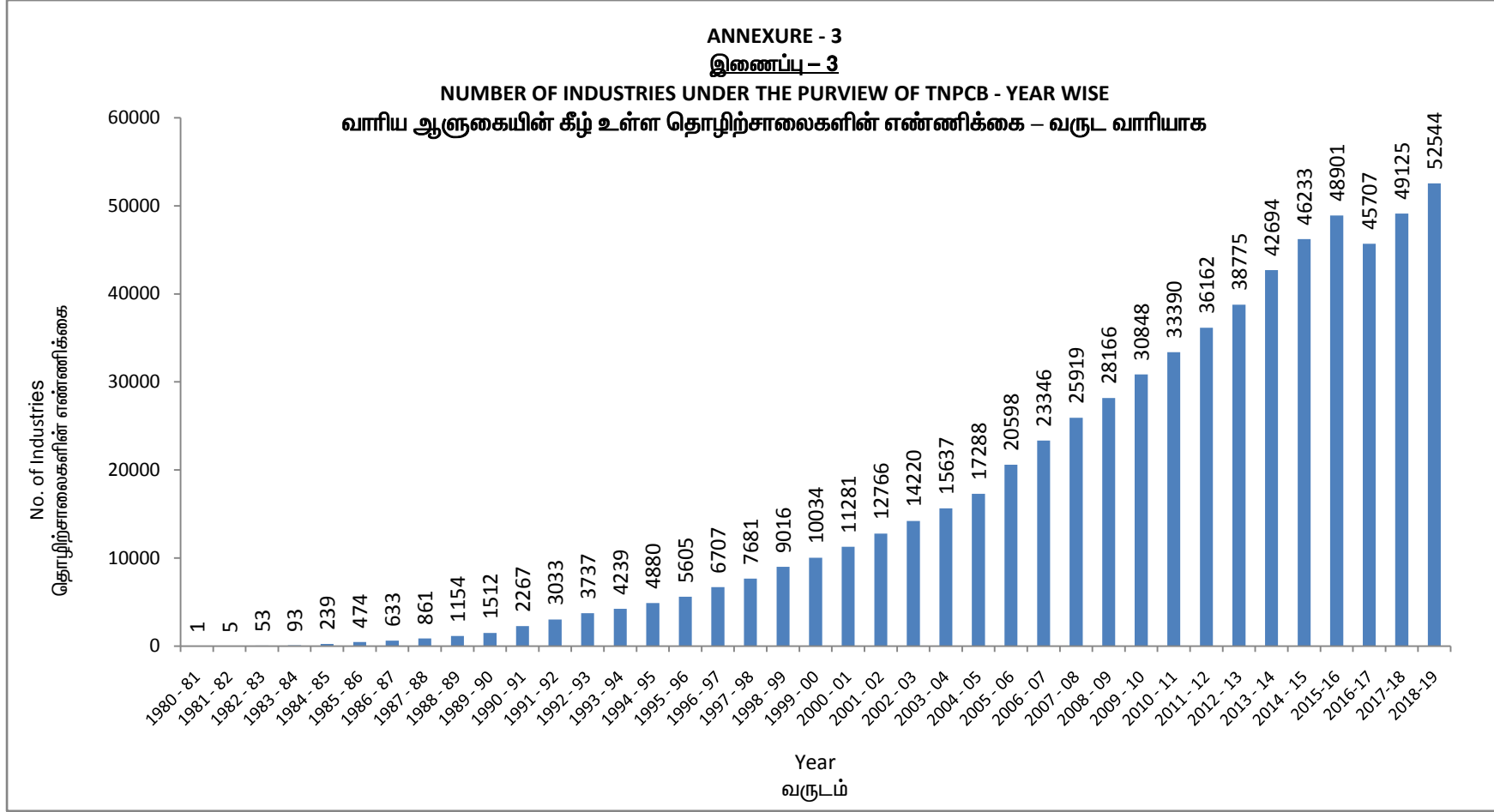


ANNEXURE - 3

இணைப்பு - 3

NUMBER OF INDUSTRIES UNDER THE PURVIEW OF TNPCB - YEAR WISE

வாரிய ஆளுகையின் கீழ் உள்ள தொழிற்சாலைகளின் எண்ணிக்கை - வருட வாரியாக



As per the revised categorization by CPCB in March 2016 - No necessity to obtain Consent to Operate by the White category industries. Hence there is a decline in the number of industries during the period 2016-2017.

மார்ச் 2016-யில் மத்திய மாசு கட்டுப்பாடு வாரியத்தால், தொழிற்சாலைகள் திருத்தி வகைப்படுத்தப்பட்டு வெள்ளை வகை நிறுவனங்கள் இசைவாணை பெற அவசியம் இல்லை என அறிவிக்கை செய்ததன் விளைவாக 2016-2017 ஆம் ஆண்டில், தொழிற்சாலைகளின் எண்ணிக்கை சற்று குறைந்துள்ளது.

Annexure – 4

இணைப்பு – 4

S. No. வ. எண்	Name of the post பதவியின் பெயர்	Sanctioned post அனுமதிக்கப்பட்ட பதவி	Present strength தற்போதைய நிலை	Vacant காலியிடம்
<u>DETAILS OF ENGINEERING STAFF</u> <u>பொறியியல் பணியமைப்பு</u>				
1	Chief Environment Engineer தலைமை சுற்றுச்சூழல் பொறியாளர்	1	1	-
2	Additional Chief Environmental Engineer கூடுதல் தலைமை சுற்றுச்சூழல் பொறியாளர்	2	2	-
3	Joint Chief Environmental Engineer இணை தலைமை சுற்றுச்சூழல் பொறியாளர்	12	10	2
4	Environmental Engineer சுற்றுச்சூழல் பொறியாளர்	52	51	1
5	Assistant Environmental Engineer உதவி சுற்றுச்சூழல் பொறியாளர்	48	46	2
6	Assistant Engineer உதவி பொறியாளர்	149	76	73
4	Assistant Engineer (Auto) உதவி பொறியாளர் (ஆட்டோ)	1	1	-
Total		265	187	78
<u>DETAILS OF ENGINEERING SUBORDINATE STAFF</u> <u>பொறியியல் சார்புநிலை பணியமைப்பு</u>				
1	Junior Engineer (Electrical) இளநிலை பொறியாளர்	1	-	1
2	Junior Engineer (Civil) இளநிலை பொறியாளர் (சிவில்)	1	1	-
3	Assistant Draughtsman உதவி வரைவாளர்	3	-	3
4	Electrician மின் வினைஞர்	6	4	2
5	Technical Assistant தொழில்நுட்ப உதவியாளர்	1	1	-
Total		12	6	6
<u>DETAILS OF SCIENTIFIC SERVICE</u> <u>விஞ்ஞானப் பணியமைப்பு</u>				
1	Deputy Director (Lab) துணை இயக்குனர் (ஆய்வகம்)	2	2	-
2	Assistant Director (Lab) உதவி இயக்குனர் (ஆய்வகம்)	10	8	2
3	Chief Scientific Officer தலைமை விஞ்ஞான அலுவலர்	6	3	3
4	Deputy Chief Scientific Officer துணை தலைமை விஞ்ஞான அலுவலர்	28	28	-
5	Environmental Scientist சுற்றுச்சூழல் விஞ்ஞானி	77	15	62
6	Senior Meteorologist முதுநிலை வானவியலாளர்	1	-	1
7	Meteorologist வானவியலாளர்	2	-	2
Total		126	56	70

DETAILS OF SCIENTIFIC SUBORDINATE SERVICE				
விஞ்ஞான சார்புநிலை பணியமைப்பு				
1	Jr. Environmental Scientist இளநிலை சுற்றுச்சூழல் விஞ்ஞானி	6	5	1
2	Field Assistant களப்பணியாளர்	56	37	19
3	Lab Assistant ஆய்வக உதவியாளர்	28	21	7
Total		90	63	27
DETAILS OF GENERAL SERVICE				
பொது பணியமைப்பு				
1	Senior Manager (F & A) முதுநிலை மேலாளர் (நிதி மற்றும் கணக்கு)	1	-	1
2	Manager மேலாளர்	2	2	-
3	Manager (Law) மேலாளர் (சட்டம்)	1	1	-
4	Law Officer சட்ட அலுவலர்	1	-	1
5	Additional Manager கூடுதல் மேலாளர்	6	-	6
6	Court Master நிதிமன்ற அதிகாரி	1	-	1
7	Deputy Manager துணை மேலாளர்	21	18	3
Total		33	21	12
DETAILS OF GENERAL SUBORDINATE SERVICE				
பொது சார்புநிலை பணியமைப்பு				
1.	Assistant Manager உதவி மேலாளர்	63	63	-
2.	General Assistant பொது உதவியாளர்	80	65	15
3	Assistant உதவியாளர்	77	24	53
4	Private Secretary தனி செயலாளர்	3	1	2
5	Steno-Typist (Grade-I) சுருக்கெழுத்து தட்டச்சர் (நிலை - I)	4	4	0
6	Steno-Typist(Grade-II) சுருக்கெழுத்து தட்டச்சர் (நிலை - II)	18	13	5
7	Steno-Typist(Grade-III) சுருக்கெழுத்து தட்டச்சர் (நிலை - III)	4	3	1
8	Typist தட்டச்சர்	57	2	55
9	Driver ஓட்டுநர்	57	26	31
10	Telephone Operator தொலைபேசி இயக்குபவர்	2	-	2
11	Record Clerk பதிவுரு எழுத்தர்	13	1	12
Total		378	202	176

DETAILS OF MISCELLANEOUS SERVICE				
இதர பணியமைப்பு				
1	Statistical Officer புள்ளிவிவர அலுவலர்	1	-	1
2	Assistant Statistical Officer உதவி புள்ளிவிவர அலுவலர்	1	-	1
3	Librarian (Grade-I) நூலகர் (நிலை- I)	1	-	1
4	Librarian (Grade-II) நூலகர் (நிலை- II)	1	-	1
5	Programmer மென்பொருள் திட்டமிடுபவர்	1	-	1
6	Assistant Programmer இளநிலை மென்பொருள் திட்டமிடுபவர்	2	1	1
7	Data Entry Operator தகவல் பதிவு அலுவலர்	4	-	4
Total		11	1	10
DETAILS OF BASIC SERVICE				
அடிப்படை பணியமைப்பு				
1	Office Assistant அலுவலக உதவியாளர்	74	18	56
2	Sweeper துப்புரவாளர்	4	4	-
3	Watchman காவலர்	1	1	-
Total		79	23	56
DETAILS OF DEPUTATION STAFF				
அயற்பணி				
1	Director Labs இயக்குனர் ஆய்வகம்	1	-	1
2	Financial Advisor நிதி ஆலோசகர்	1	1	-
Total		2	1	1
PENSIONERS				
ஓய்வதியதாரர்கள்				
1	Pensioners ஓய்வதியதாரர்கள்	362		
2	Family pensioners குடும்ப ஓய்வதியதாரர்கள்	71		

Annexure – 5 இணைப்பு – 5
PERFORMANCE OF LABORATORIES (2018 - 2019) ஆய்வகங்களின் செயல்பாடு (2018 – 2019)

S.No. வ.எண்	Laboratory ஆய்வகம்	Water Samples நீர் மாதிரிகள்									Sludge திடக்கழிவு	Total மொத்தம்	Air Survey காற்று மாதிரிகள்			NAMP தேசிய காற்று மண்டல தர கண்கா ணிப்பு திட்டம்	Noise ஒலி ஆய்வு			
		Effluent கழிவு நீர்		Projects திட்டங்கள்			River Water ஆற்று நீர் மாதிரிகள்	Others இதர மாதிரிகள்	No. of Industries தொழிற்சாலை எண்ணிக்கை	AAGS Stations காற்றுப்படி நிலையங்கள்			Stack Monitoring Stations புகைப்போக்கி நிலையங்கள்	Regular			Complaints			
		Industrial தொழிற்சாலை	Sewage மனித வழி	GEMS ஜெம்ஸ்	MINARS மினார்ஸ்	CCWW சென்னை மாநகரநீர் வழிகள்								WellWater Samples கிணறு நீர் மாதிரிகள்	No. of Industries தொழிற்சாலை எண்ணிக்கை		No. of Stations நிலையங்கள் எண்ணிக்கை	No. of Industries தொழிற்சாலை எண்ணிக்கை	No. of Stations நிலையங்கள் எண்ணிக்கை	
Advanced Environmental Laboratories மேம்படுத்தப்பட்ட சுற்றுச்சூழல் ஆய்வகம்																				
1	Chennai சென்னை	1623	601	0	48	219	11	0	56	7	2565	90	546	515	7482	90	734	0	0	
2	Coimbatore கோயம்புத்தூர்	1040	855	0	0	0	91	101	60	2	2149	65	364	180	4811	56	425	11	70	
3	Cuddalore கடலூர்	951	261	0	0	0	156	26	40	0	1434	106	462	240	6789	104	597	1	8	
4	Madurai மதுரை	794	342	0	38	0	292	0	57	11	1534	66	418	151	6141	61	502	3	19	
5	Salem சேலம்	927	231	32	364	0	380	189	117	89	2329	79	463	226	4915	79	717	3	24	
6	Tirunelveli திருநெல்வேலி	489	167	0	144	0	0	0	60	0	860	28	150	33	0	28	147	1	10	
7	Trichy திருச்சி	1224	882	0	0	0	119	29	35	10	2299	129	644	261	7606	127	642	7	88	
8	Vellore வேலூர்	1041	259	0	0	0	291	125	4	1	1721	89	454	452	0	85	532	4	27	
District Environmental Laboratories மாவட்ட சுற்றுச்சூழல் ஆய்வகம்																				
9	Ambattur அம்பத்தூர்	1745	593	0	0	0	0	0	34	0	2372	102	505	435	6320	102	505	0	0	
10	Dindigul திண்டுக்கல்	1593	0	0	0	0	0	0	0	0	1593	67	489	153	0	58	399	10	126	
11	Hosur ஓசூர்	706	460	0	0	0	4	69	16	0	1255	101	516	192	0	106	748	0	0	
12	Manali மணலி	934	412	0	0	0	48	0	0	0	1394	70	392	226	0	67	363	1	6	
13	Maraimalai Nagar மறைமலை நகர்	436	573	0	0	0	170	0	0	0	1179	108	537	380	0	108	568	3	15	
14	Perundurai பெருந்தூரை	795	19	0	0	0	286	0	71	0	1171	36	174	57	0	36	179	0	0	
15	Thoothukudi தூத்துக்குடி	682	0	0	0	0	0	0	0	0	682	41	206	87	6327	29	150	0	0	
16	Tiruppur திருப்பூர்	1467	130	0	0	0	305	285	6	0	2193	42	329	58	0	37	191	2	21	
	Total மொத்தம்	16447	5785	32	594	219	2153	824	556	120	26730	1219	6649	3646	49465	1173	7399	46	414	

Annexure – 6 இணைப்பு – 6

STATUS OF AIR QUALITY OF IMPORTANT CITIES/ TOWNS OF TAMILNADU-UNDER NATIONAL AIR QUALITY MONITORING PROGRAMME(NAMP), ANNUAL AVERAGE CONCENTRATIONS OF AIR POLLUTANTS, 2018-2019

துமிழ்நாட்டின் முக்கிய நகரங்களில் காற்றின் தன்மை-தேசிய காற்று மண்டலத் தர கண்காணிப்பு திட்டம் – காற்றுத்தர வருடாந்திர சராசரி அளவுகள், 2018-2019

Annual Average Concentrations of Air Pollutants in µg/m³
காற்று மாசின் வருடாந்திர அளவு மைகி/கனமீ

Sl.No. வ. எண்	City & Location நகரம்/நிலையம் இருக்கும் இடம்	Category செயல்படும் பகுதி	Annual Average Concentrations of Air Pollutants in µg/m ³ காற்று மாசின் வருடாந்திர அளவு மைகி/கனமீ												
			SO ₂ சல்பர் டை ஆக்ஸைடு			NO ₂ நைட்ரஜன் டை ஆக்ஸைடு			PM ₁₀ நுண் துகள்கள் ₁₀			PM _{2.5} நுண் துகள்கள் _{2.5}			
			Max அதிக பட்ச அளவு	Min குறைந்த பட்ச அளவு	Avg சராசரி அளவு	Max அதிக பட்ச அளவு	Min குறைந்த பட்ச அளவு	Avg சராசரி அளவு	Max அதிக பட்ச அளவு	Min குறைந்த பட்ச அளவு	Avg சராசரி அளவு	Max அதிக பட்ச அளவு	Min குறைந்த பட்ச அளவு	Avg சராசரி அளவு	
1	CHENNAI சென்னை														
a)	Kathivakkam கத்திவாக்கம்	Industrial தொழிற்சாலை பகுதி	16	12	14	19	14	17	62	40	53	39	25	32	
b)	Manali மணலி	Industrial தொழிற்சாலை பகுதி	21	12	14	21	15	18	71	37	53	42	24	33	
c)	Thiruvottiyur திருவொற்றியூர்	Industrial தொழிற்சாலை பகுதி	15	11	13	18	14	16	73	45	59	43	26	34	
d)	Anna Nagar அண்ணாநகர்	Residential குடியிருப்பு பகுதி	10	8	9	21	16	19	161	71	114	47	29	37	
e)	Adyar அடையாறு	Residential குடியிருப்பு பகுதி	10	7	8	17	13	16	107	51	75	35	17	25	
f)	Kilpauk கீழ்ப்பாக்கம்	Commercial (Traffic- intersection) வணிக பகுதி	11	9	10	22	17	20	128	62	94	43	25	34	
g)	Thiyagarayanagar தியாகராயநகர்	Commercial (Traffic- intersection) வணிக பகுதி	11	9	10	23	18	20	138	70	103	47	27	37	
h)	Nungambakkam நுங்கம்பாக்கம்	Commercial (Traffic- intersection) வணிக பகுதி	12	9	10	22	18	20	173	71	114	46	30	38	
2	COIMBATORE கோயம்புத்தூர்														
a)	DCO டிசிலூ	Mixed கலப்பு	6	4	5	25	19	22	80	36	57	45	16	31	
b)	Ponaiyarajapuram பொன்னியராஜபுரம்	Residential குடியிருப்பு பகுதி	6	4	5	24	18	21	75	30	48	47	15	27	
c)	SIDCO சிட் கோ	Industrial தொழிற்சாலை பகுதி	8	6	7	29	20	23	87	40	61	58	20	36	
3	THOOTHUKUDI தூத்துக்குடி														
a)	Raja Agencies ராஜா ஏஜென்சீஸ்	Industrial தொழிற்சாலை பகுதி		16	11	14	13	9	11	126	80	106	35	15	25

b)	AVM Buildings ஏவிஎம் பில்டிங்ஸ்	Mixed கலப்பு	14	11	12	12	9	11	112	65	91	38	14	24
c)	SIPCOT சிப்காட்	Industrial தொழிற்சாலை பகுதி	14	9	12	12	7	10	122	59	90	33	12	21
4	MADURAI மதுரை													
a)	M/s.Susee Cars & Trucks (P) Ltd., கசி கார்ஸ் மற்றும் டிரக்ஸ் (பி) லிமிடெட்	Industrial தொழிற்சாலை பகுதி	15	10	12	22	17	19	109	69	89	49	24	34
b)	Madurai Corporation Office(SZ) மதுரை கார்ப்பரேஷன் ஆபிஸ்	Mixed கலப்பு	16	11	13	23	16	19	124	71	92	51	23	36
c)	Highways project Buildings நெடுஞ்சாலை திட்டக் கட்டிடங்கள்	Residential குடியிருப்பு பகுதி	13	9	11	20	15	17	98	53	74	48	22	32
5	SALEM சேலம்													
a)	Sowdeswari college building சௌடேஸ்வரி கல்லூரி கட்டிடம்	Mixed கலப்பு	9	6	8	30	21	25	88	41	58	33	19	29
Prescribed standards(Annual average) for Industrial, Residential, Rural & Other areas நிர்ணயிக்கப்பட்ட வருடாந்திர சராசரி அளவீடு குடியிருப்பு, நகர்ப்புறம் மற்றும் பிறபகுதிகள் (கலப்பு)			50			40			60			40		
Note: SO ₂ : Sulphur di oxide சல்பர் டை ஆக்ஸைடு NO ₂ : Nitrogen di Oxides நைட்ரஜன் டை ஆக்ஸைடு PM ₁₀ : Particulate Matter (less than 10 micron size) நுண் துகள்கள் ₁₀ PM _{2.5} : Particulate Matter (less than 2.5 micron size) நுண் துகள்கள் _{2.5}														

Annexure – 6 Contd.. இணைப்பு – 6 தொடர்ச்சி.

STATUS OF AIR QUALITY OF IMPORTANT CITIES/ TOWNS OF TAMILNADU-UNDER NATIONAL AIR QUALITY MONITORING PROGRAMME(NAMP) ANNUAL AVERAGE CONCENTRATIONS OF AIR POLLUTANTS, 2018-2019

தேசிய காற்று மண்டலத் தர கண்காணிப்பு திட்டம் – காற்றுத்தர வருடாந்திர சராசரி அளவுகள், 2018-2019

Sl.No. வ. எண்	City & Location நகரம்/நிலையம் இருக்கும் இடம்	Category செயல்படும் பகுதி	Annual Average Concentrations of Air Pollutants in $\mu\text{g}/\text{m}^3$ காற்று மாசின் வருடாந்திர அளவு மை.கி/கன.மீ											
			SO ₂ சல்பர் டை ஆக்ஸைடு			NO ₂ நைட்ரஜன் டை ஆக்ஸைடு			PM ₁₀ நுண் துகள்கள் ₁₀			PM _{2.5} நுண் துகள்கள் _{2.5}		
			Max அதிக பட்ச அளவு	Min குறைந்த பட்ச அளவு	Avg சராசரி அளவு	Max அதிக பட்ச அளவு	Min குறைந்த பட்ச அளவு	Avg சராசரி அளவு	Max அதிக பட்ச அளவு	Min குறைந்த பட்ச அளவு	Avg சராசரி அளவு	Max அதிக பட்ச அளவு	Min குறைந்த பட்ச அளவு	Avg சராசரி அளவு
6	TRICHY திருச்சி													
a)	Gandhi Market காந்தி மார்க்கெட்	Commercial வணிக பகுதி	19	14	17	24	19	22	139	85	110	77	43	54
b)	Main Guard Gate மெயின் காட்டு கேட்	Traffic Inter-Section போக்குவரத்து	20	16	18	25	21	23	148	95	122	77	50	65
c)	Bishop Heber College பிஷப் ஹெபர் காலேஜ்	Mixed கலப்பு	15	12	13	21	16	18	118	62	93	47	26	36
d)	Golden Rock கோல்டன் ராக்	Residential தொழிற்சாலை பகுதி	16	12	14	23	18	21	116	70	94	51	33	43
e)	Central Bus Stand சென்ட்ரல் பஸ் ஸ்டான்டு	Traffic Inter-Section போக்குவரத்து	20	17	18	27	24	25	157	84	119	71	44	58
7	CUDDALORE கடலூர்													
a)	Eachangadu Village ஈச்சங்காடு கிராமம்	Residential குடியிருப்பு பகுதி	14	10	12	18	17	17	56	45	51	34	29	32
b)	DEE Office மா.க.சூ. அலுவலகம்	Commercial வணிக பகுதி	16	11	13	20	17	18	64	55	60	39	34	37
c)	SIPCOT சிப்காட்	Industrial தொழிற்சாலை பகுதி	14	9	11	18	16	17	49	41	46	29	24	27
8	METTUR மேட்டுர்													
a)	Raman Nagar ராமன் நகர்	Residential குடியிருப்பு பகுதி	8	6	7	26	19	21	69	27	46	34	15	24
b)	SIDCO சி.டீ.கோ	Industrial தொழிற்சாலை பகுதி	8	6	7	27	20	24	97	40	69	48	25	36
Prescribed standards(Annual average) for Industrial, Residential, Rural & Other areas நிர்ணயிக்கப்பட்ட வருடாந்திர சராசரி அளவீடு குடியிருப்பு, நகர்ப்புறம் மற்றும் பிற்பகுதிகள் (கலப்பு)			50			40			60			40		
Note: SO ₂ : Sulphur di oxide சல்பர் டை ஆக்ஸைடு NO ₂ : Nitrogen di Oxides நைட்ரஜன் டை ஆக்ஸைடு PM ₁₀ : Particulate Matter (less than 10 micron size) நுண் துகள்கள் ₁₀ PM _{2.5} : Particulate Matter (less than 2.5 micron size) நுண் துகள்கள் _{2.5}														

Annexure – 7 இணைப்பு – 7
TNPCB - Continuous Ambient Air Quality Monitoring Stations - Year 2018-2019 (Annual Average)
தொடர் சற்றுப்பிற காற்று தர கண்காணிப்பு – 2018 – 2019 (வருட சராசரி புள்ளி விவரங்கள்)

S. No வ. எண்	Station Name ஆய்வு செய்த இடம்	Ambient Air Quality in µg/m3 சற்றுப்பிற காற்று தரம் மை.கி/க.மீ																				
		SO2 சல்பர் டை ஆக்ஸைடு			NO2 நைட்ரஜன் டை ஆக்ஸைடு			PM10 நுண் துகள்கள் ₁₀			PM2.5 நுண் துகள்கள் _{2.5}			O ₃ ஓசோன்			NH ₃ அமோனியா			Benzene பென்சீன்		
		Min குறைந்த பட்ச அளவு	Max அதிக பட்ச அளவு	Avg சராசரி அளவு	Min குறைந்த பட்ச அளவு	Max அதிக பட்ச அளவு	Avg சராசரி அளவு	Min குறைந்த பட்ச அளவு	Max அதிக பட்ச அளவு	Avg சராசரி அளவு	Min குறைந்த பட்ச அளவு	Max அதிக பட்ச அளவு	Avg சராசரி அளவு	Min குறைந்த பட்ச அளவு	Max அதிக பட்ச அளவு	Avg சராசரி அளவு	Min குறைந்த பட்ச அளவு	Max அதிக பட்ச அளவு	Avg சராசரி அளவு	Min குறைந்த பட்ச அளவு	Max அதிக பட்ச அளவு	Avg சராசரி அளவு
1	Koyambedu கோயம்பேடு	1.9	23.8	9.0	12.2	25.2	18.9	48	119	77	15	72	34	-	-	-	2.4	12.4	5.4	-	-	-
2	Royapuram ராயபுரம்	3.4	21.3	11.1	11.9	18.3	14.9	40	98	68	11	60	28	8.1	66.9	26.5	9.6	17.7	13.7	1.1	3.1	2.0
3	Perungudi பெருங்குடி	2.8	9.2	5.9	10.2	28.0	19.6	43	107	67	10	60	27	20.3	94.3	51.1	10.6	46.0	27.0	0.2	0.5	0.4
4	Kodungaiyur கொடுங்கையூர்	4.8	12.2	6.9	5.6	13.9	9.5	51	115	71	11	35	22	12.9	42.5	25.3	6.1	22.0	10.5	0.7	1.9	1.3
5	Gumidipoondi SIPCOT கும்மிடிப்பூண்டி சிப்காட்	7.2	18.8	13.0	5.6	18.3	14.3	75	130	98	29	81	50	-	-	-	7.6	14.0	11.3	-	-	-
6	Thoothukudi SIPCOT தூத்துக்குடி சிப்காட்	4.1	14.4	7.54	3.7	11.2	7.5	48	78	59.5	-	-	-	18.8	51.3	31.03	-	-	-	0.4	1.8	0.83
Standard (Annual Average) தர அளவு		50 µg/m3 50 மை.கி/க.மீ			40 µg/m3 40 மை.கி/க.மீ			60 µg/m3 60 மை.கி/க.மீ			40 µg/m3 40 மை.கி/க.மீ			100 µg/m3 100 மை.கி/க.மீ			100 µg/m3 100 மை.கி/க.மீ			5 µg/m3 5 மை.கி/க.மீ		

Annexure – 8 இணைப்பு – 8
Ambient Air Quality of Tamil Nadu during Deepavali Festival 2018
தீபாவளி 2018 – அன்று சென்னை மாநகரின் சுற்றுப்புற காற்று மற்றும் சுற்றுப்புற ஒலி அளவு

Sl. No. வ. எண்	Station Location ஆய்வு செய்த இடம்	Ambient Air Quality (24 hrs average) µg/m ³ சுற்றுப்புற காற்று தரம் (24 சராசரி) மை.கி/க.மீ											
		Pre-Deepavali (31.10.18-05.11.18) தீபாவளிக்கு முன்				Deepavali (06.11.2018) தீபாவளி அன்று				Post-Deepavali (07.11.18-13.11.18) தீபாவளிக்கு பின்			
		PM ₁₀ நுண் துகள்க ள் ₁₀	PM _{2.5} நுண் துகள்க ள் _{2.5}	SO ₂ சல்பர் டை ஆக்சைடு	NO ₂ நைட்ஜன் டை ஆக்சைடு	PM ₁₀ நுண் துகள்கள் ₁₀	PM _{2.5} நுண் துகள்க ள் _{2.5}	SO ₂ சல்பர் டை ஆக்சைடு	NO ₂ நைட்ஜன் டை ஆக்சைடு	PM ₁₀ நுண் துகள்கள் ₁₀	PM _{2.5} நுண் துகள்க ள் _{2.5}	SO ₂ சல்பர் டை ஆக்சைடு	NO ₂ நைட்ஜன் டை ஆக்சைடு
I	CHENNAI சென்னை												
1	Triplicane (R) திருவல்லிக்கேணி (கு)	60.8	25	12.5	17.8	70	25	15	20	90.5	35	10	17
2	Besant Nagar (R) பெசன்ட் நகர் (கு)	51	20	10.8	15.6	75	29	8	16	84.8	24.4	9.2	6.2
3	Nungambakkam (R) நுங்கம்பாக்கம் (கு)	62.5	28	12.5	20	48	21	13	19	83	32	11	21
4	Sowcarpet (M) செளகார்பேட்டை (க)	77	33	12	18	114	42	12	22	153	45	10	18
5	T.Nagar (C) தி. நகர் (வ)	80	36	11	19	97	38	10	19	106	38	10	20
II	COIMBATORE கோயம்புத்தூர்												
1	District Collector Office (C) மாவட்ட ஆட்சியர் அலுவலகம் (வ)	61	54	6	22	266	329	11	23	74	63	5	24
2	Kovundampalayam (R) கவுண்டம்பாளையம் (கு)	61	25	6	20	204	136	10	20	61	24	5	23
III	CUDDALORE கடலூர்												
1	Imperial Road (M) இம்பெரியல் சாலை (க)	67	40	16	24	72	45	18	27	66	38	16	24
2	Pudupalayam (R) புதுபாளையம் (கு)	45	37	13	17	59	43	23	25	45	37	13	18
IV	MADURAI மதுரை												
1	Thirunagar (R) திருநகர் (கு)	76	30	16	21	137	21	25	22	72	22	11	17
2	Madurai Corporation Office (South) (M) மதுரை கார்ப்பரேஷன் அலுவலகம் (தெற்கு) (க)	126	39	15	20	149	12	22	24	106	31	17	22
V	SALEM சேலம்												
1	Sarada Balamandir Boys Higher Secondary School (R) சாரதா பாலமந்திர ஆண்கள் மேல்நிலை பள்ளி (கு)	50	22	6	21	154	61	15	44	53	22	7	23
2	Sowdeeswari College (M) செளடேஸ்வரி கல்லூரி (க)	61	20	8	31	127	42	14	40	62	21	8	28

VI	TRICHY	திருச்சி												
1	Gandhi Market (M)	காந்தி மார்க்கெட் (க)	91	37	18	22	106	63	21	26	94	50	17	20
2	Ramalinga Nagar (R)	ராமலிங்கா நகர் (கு)	59	18	14	18	113	70	23	30	54	26	12	15
VII	TIRUNELVELI	திருநெல்வேலி												
1	Pettai (M)	பேட்டை (க)	42	39	14	33	44	70	16	38	48	67	9	16
2	Tirunelveli Town (R)	திருநெல்வேலி டவுன் (கு)	25	28	13	32	126	133	13	46	35	56	7	13
VIII	VELLORE	வேலூர்												
1	Gandhi Nagar (R)	காந்தி நகர் (கு)	69	24	6	38	148	56	11	48	90	28	6	37
2	Thirunagar (C)	திருநகர் (வ)	68	22	6	38	151	55	10	48	94	26	6	38
IX	HOSUR	ஓசூர்												
1	Intel Transit Home (R)	இண்டெல் டிரான்சிட் ஹோம் (கு)	42	17	14	21	142	51	25	46	37	18	13	21
2	ESI Hospital (S)	ஈஎஸ்ஐ மருத்துவமனை (சி)	37	14	13	22	97	44	24	43	31	14	11	20
X	THOOTHUKUDI	தூத்துக்குடி												
1	Raju Nagar,	ராஜீ நகர்	97	29	12	12	242	108	14	14	36	18	10	9
2	Selsini Colony	செல்சினி காலனி	77	25	12	12	175	109	16	15	39	19	10	10
XI	DINDIGUL	திண்டுக்கல்												
1	Rajagopal Iyengar Petrol Bunk (M)	ராஜகோபால் ஐயங்கார் பெட்ரோல் பங்க் (க)	84	48	17	25	188	90	26	39	94	44	12	21
2	Nagalpudur (R)	நாகல்புதூர் (கு)	72	40	15	21	148	78	24	35	69	31	11	19
XII	TIRUPPUR	திருப்பூர்												
1	Kumaran Complex (M)	குமரன் காம்பளக்ஸ் (க)	117	47	17	14	170	42	20	16	121	49	15	16
2	Rayapuram (R)	ராயபுரம் (கு)	78	60	17	14	323	24	19	15	101	52	14	16
Standard			PM ₁₀ நுண் துகள்கள் ₁₀ : 100 µg/m ³ , SO ₂ சல்பர் டை ஆக்சைடு: 80 µg/m ³ , NO ₂ நைட்ரஜன் டை ஆக்சைடு : 80 µg/m ³ . R- Residential, C - Commercial, M - Mixed Residential, S – Special Zone கு – குடியிருப்பு, வ – வணிகம், க – கலப்பு குடியிருப்பு, சி – சிறப்பு மண்டலம்											

Annexure – 9A இணைப்பு – 9அ
CAUVERY RIVER WATER QUALITY(UNDER GEMS PROGRAMME) 2018 - 2019 காவிரி நதி நீரின் தரம் (புவி சுற்றுச்சூழல் கண்காணிப்பு திட்டத்தின் கீழ்) 2018-2019

S.NO வ. எண்	Stations நிலையங்கள்	Dissolved Oxygen mg/L கரைந்துள்ள ஆக்ஸிஜன் மி.கி/லி	pH அமில காரத்தன்மை	Conductivity μmhos/cm மின் கடத்தும் திறன்	EC mg/L உயிர் வேதியியல் பிராண வாயுத் தேவை மி.கி/லி	Nitrate mg/L நைட்ரேட் மி.கி/லி	Nitrite mg/L நைட்ரைட் மி.கி/லி	Fecal coliform MPN/100 ml காபீகல் கோலிபாக்டீரியம் எம்.பி.என்/100 மி.லி	Total coliform MPN/100 ml மொத்த கோலிபாக்டீரியம் எம்.பி.என்/100 மி.லி	Turbidity NTU கலங்கல் தன்மை	Phenolphthaleim Alkalinity mg/L பிளாப்தலின் காரத்தன்மை மி.கி/லி	Total Alkalinity mg/L மொத்த காரத்தன்மை மி.கி/லி	Chloride mg/L குளோரைடு மி.கி/லி	COD mg/L வேதியியல் பிராண வாயு தேவை மி.கி/லி	Total Kjeldahl Nitrogen mg/L மொத்த கெல்டால் நைட்ரஜன் மி.கி/லி	Ammonia-N as N mg/L அமோனியா நைட்ரஜன் மி.கி/லி	Hardness as CaCO3 mg/L கடினத்தன்மை மி.கி/லி	Calcium as Ca++ mg/L கால்சியம் மி.கி/லி	Magnesium as Mg++ mg/L மக்னீசியம் மி.கி/லி	Suphate mg/L சல்பேட் மி.கி/லி	Sodium mg/L சோடியம் மி.கி/லி	Total Dissolved Solids mg/L மொத்த கரைந்துள்ள துகள்கள் மி.கி/லி	Total Fixed Solids mg/ மொத்த நிலைமக்கப்பட்ட துகள்கள் மி.கி/லி	Total Suspended Solids mg/L மொத்த மிதக்கும் துகள்கள் மி.கி/லி	Phosphate mg/L பாஸ்பேட் மி.கி/லி	Boron mg/L போரான் மி.கி/லி	Potassium mg/L பொட்டாசியம் மி.கி/லி	Fluoride mg/L ஃப்ளூரைடு மி.கி/லி	DBU Class நீர்த்தரம் பிரிவுகள் குறிக்கப்பட்ட சிறந்த பயன் பிரிவு
1	Mettur மேட்டுர்	6.64	7.75	376	2	0.140	0.240	87	254	8	10	123	37	17	3	1	160	31	20	13	30	280	252	15	0.14	<0.002	4	0.35	B
2	Pallipalayam பள்ளிப்பாளையம்	6.21	7.60	572	3	0.510	0.530	367	1071	19	12	159	80	23	5	2	193	40	23	25	61	410	378	24	0.26	<0.002	7	0.62	C
3	Musiri borewell முசிரி போர்வெல்	6.35	8.02	800	1	0.079	0.012	170	430	40	16	220	140	26	2	1	274	42	41	17	58	536	504	32	0.12	<0.002	12	0.43	B
4	Musiri ferrygate முசிரி பேரிக்கேட்	6.10	8.03	477	2	0.35	0.047	225	693	18	16	118	65	17	3	1	175	39	19	18	44	344	319	27	0.20	<0.002	6	0.53	C

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

DBU Class-Designated Best Use

mg/L-milligram per liter

MPN-Most Probable Number

A - Drinking Water Source without conventional treatment but after disinfection குடிநீர் ஆதாரம் வழக்கமான சுத்திகரிப்பின்றி ஆனால் நோய்கிருமி நீக்கியப்பின்

B - Outdoor bathing (organised) வெளிப்புறக்குளியல் (எற்படுத்தப்பட்ட)

C - Drinking water source after conventional treatment and disinfection குடிநீர் ஆதாரம் வழக்கமான சுத்திகரிப்புடன் மற்றும் நோய்கிருமி நீக்கம்

D-Propagation of wild life and fisheries வன மற்றும் மீன்வள அபிவிருத்திக்கு உகந்தது.

E -Irrigation, Industrial cooling,controlled waste disposal பாசனம், தொழிற்சாலை குளிரூட்டும்வாற்கும், கட்டுப்பாடுடன் கழிவுநீர் வெளியேற்றத்துடன் உகந்தவை

Below E Not meeting A,B,C,D & E Criteria இ-க்கும் கீழ்-பேற்படி பிரிவுகளில் உட்படாதது.

Annexure – 9B இணைப்பு – 9ஆ

CAUVERY RIVER WATER QUALITY (UNDER MINARS PROGRAMME) 2018 - 2019 காவிரி நதி நீரின் தரம் இந்திய தேசிய நிர்வக ஆதாரங்கள் கண்காணிப்பு திட்டத்தின் கீழ் 2018-2019

S.NO	வ. எண்	Stations நிலையங்கள்	Dissolved Oxygen mg/L கரைந்த இரை ஆக்ஸிஜன் மி.கி/லி	pH அமில காரத்தன்மை	Conductivity μmhos/cm மின் கடத்தும் திறன்	உயிர் வேதியியல் பிராண வாயுத் தேவை	Nitrate mg/L நைட்ரேட் மி.கி/லி	Nitrite mg/L நைட்ரைட் மி.கி/லி	Fecal coliform MPN/100 ml ஃபீகல் கோலிபாக்டீரியம் எம்.பி.என்/100	Total coliform MPN/100 ml மொத்த கோலிபாக்டீரியம் எம்.பி.என்/100	Turbidity NTU கலங்கல் தன்மை	Phenophthaline Alkalinity mg/L பிளாப்தலின் காரத்தன்மை மி.கி/லி	Total Alkalinity mg/L மொத்த காரத்தன்மை மி.கி/லி	Chloride mg/L குளோரைடு மி.கி/லி	COD mg/L கேதிபிபிசு பிராண வாயு தேவை மி.கி/லி	Total Kjeldahl Nitrogen mg/L மொத்த ஜெல்பால் நைட்ரஜன் மி.கி/லி	Ammonia-Nas N mg/L அமோனியா நைட்ரஜன் மி.கி/லி	Hardness as CaCO3 mg/L கடினத்தன்மை மி.கி/லி	Calcium as Ca++ mg/L கால்சியம் மி.கி/லி	Magnesium as Mg++ mg/L மக்னீசியம் மி.கி/லி	Sulphate mg/L சல்பேட் மி.கி/லி	Sodium mg/L சோடியம் மி.கி/லி	Total Dissolved Solids mg/L மொத்த கரைந்த இரை துகள்கள் மி.கி/லி	Total Fixed Solids mg/L மொத்த நிர்ணயிக்கப்பட்ட துகள்கள் மி.கி/லி	Total Suspended Solids mg/L மொத்த மிதக்கும் துகள்கள் மி.கி/லி	Phosphate mg/L பாஸ்பேட் மி.கி/லி	Boron mg/L போரன் மி.கி/லி	Potassium mg/L பொட்டாசியம் மி.கி/லி	Fluoride mg/L ஃபுளூரைடு மி.கி/லி	நிர்வக ஆதாரங்கள் குறிக்கப்பட்ட சிறந்த
1		Bathira kalamman koil பத்திரகாளரியம் மன் போயில்	7.36	6.80	173.0	1	0.15	0.03	90.9	280.0	27.1	<1	54.0	20.5	14.0	1.8	0.8	62.0	13.1	7.2	6.3	11.7	136.5	119.7	12.3	0.1	<0.00 2	2.4	0.5	B
2		Sirumugai சிறுமுளை	7.24	6.97	177.6	1	0.34	0.09	98.4	305.8	12.9	<1	69.1	17.3	14.7	2.1	0.8	65.3	15.1	6.9	6.8	14.6	144.5	120.3	11.0	0.1	<0.00 2	3.1	0.5	B
3		Bhavani sagar பவானி சாகர்	7.01	6.98	157.5	2	0.09	0.20	96.8	287.3	15.1	<1	54.3	17.3	15.3	2.4	1.1	70.3	16.9	6.9	2.8	10.3	128.3	110.2	14.0	0.3	<0.00 2	2.6	0.3	B
4		Bhavani பவானி	6.62	7.30	443.8	1	0.19	0.11	226.1	589.2	32.6	11.2	130.0	57.9	18.0	2.9	1.4	175.2	38.9	18.9	18.2	41.8	332.3	304.3	17.0	0.3	<0.00 2	4.7	0.6	C
5		R.N. Pudur ஆர். என். புதுர்	6.49	7.61	429.2	2	0.15	0.14	270.0	785.8	9.4	10.4	134.0	50.7	18.7	3.6	1.7	169.3	34.8	17.7	14.8	37.2	325.0	289.5	18.3	0.2	<0.00 2	4.8	0.5	C
6		Vairapalayam ஐவரபாளையம்	6.30	7.60	452.9	2	0.24	0.20	270.0	727.5	10.5	8.0	134.3	51.1	18.7	3.5	1.8	166.8	35.4	18.0	14.4	42.1	335.7	302.0	17.3	0.3	<0.00 2	5.0	0.6	C
7		P. Velur பி. வேலூர்	7.19	8.24	688.3	3	0.21	0.13	431.1	997.5	12.5	15.5	158.7	105.7	22.0	3.9	1.9	192.8	41.3	22.8	40.2	76.7	484.2	442.8	18.0	0.5	<0.00 2	7.7	0.8	C
8		Mohanur மோகனூர்	7.40	8.04	695.3	2	0.24	10.00	389.9	840.8	13.3	15.4	164.0	106.2	18.7	3.8	1.9	191.3	37.3	23.8	48.9	75.9	486.0	446.3	16.0	0.5	<0.00 2	7.6	0.9	C
9		Madathukula m மடத்துருளம்	7.80	7.19	211.6	1	0.05	0.02	67.9	220.1	21.6	<1	62.5	15.6	15.0	1.5	0.8	78.8	16.5	9.2	3.8	10.5	154.5	133.5	18.0	0.1	<0.00 2	2.8	0.1	B
10		Thirumukkudal திருமுக்கூடல்	7.07	7.95	711.2	2	0.41	0.03	331.0	900.0	6.0	10.6	158.8	112.2	19.2	3.3	1.6	226.8	52.3	27.4	58.4	78.3	531.2	494.0	14.8	0.5	<0.00 2	6.6	0.8	C
11		Trichy U/S திருச்சி	7.23	8.14	452.7	2	0.42	0.11	300.0	827.1	9.8	14.0	126.3	56.6	20.6	3.4	1.5	157.4	34.1	17.5	18.2	41.6	336.6	310.3	20.6	0.3	<0.00 2	5.3	0.6	C
12		Trichy D/S திருச்சி	5.69	7.80	541.0	3	0.53	0.15	472.9	1320.0	18.1	28.0	144.6	73.0	26.3	4.6	2.3	188.3	43.9	19.1	24.2	53.6	386.9	357.1	21.7	0.3	<0.00 2	7.1	0.8	C
13		Grand Anaicut கிராண்ட் ஆணைகூட்	5.89	7.83	501.4	5	0.44	0.20	360.0	1084.0	15.9	10.7	140.0	67.7	26.3	4.4	1.9	170.9	38.7	17.8	18.6	48.1	361.7	329.1	20.6	0.3	<0.00 2	6.6	0.7	E
14		Coleroon கோலூர்	6.65	7.95	5150.8	1	0.76	0.16	89.0	300.0	17.2	9.0	189.8	1655.0	67.0	5.2	2.5	701.8	81.0	121.0	67.6	811.0	3419.0	3316.0	19.5	0.4	<0.00 2	34.2	0.5	B

15	Pitchavaram பிச்சவரம்	6.60	7.50	755.0	2	0.60	0.10	177.7	507.1	15.4	8.0	158.9	123.6	18.3	3.7	1.5	217.0	44.8	25.4	29.4	106.7	522.3	490.9	19.4	0.4	<0.00 2	7.9	0.8	C
16	Karunthattan kudi கருந்துட்டன் குடி	7.30	8.08	440.5	2	0.24	0.11	159.0	426.0	22.9	10.0	140.0	51.8	18.0	3.1	1.4	183.0	77.0	16.5	16.6	44.0	333.0	303.0	29.0	0.3	<0.00 2	4.8	0.4	B
*CPCB-GEMS / MINARS Water quality criteria																													
DBU Class-Designated Best Use										mg/L-milligram per liter										MPN-Most Probable Number									
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																													
Below E Not meeting A,B,C,D & E Criteria																													

Annexure – 9C இணைப்பு – 9இ

CAUVERY RIVER WATER QUALITY (UNDER MINARS PROGRAMME) 2018 - 2019 காவிரி நதி நீரின் தரம் (இந்திய தேசிய நிர்வக ஆதாரங்கள் கண்காணிப்பு திட்டத்தின் கீழ்) 2018-2019

S.NO	வ. எண்	Stations நிலையங்கள்	Dissolved Oxygen mg/L கரைந்துள்ள ஆக்ஸிஜன் மி.கி/லி	pH அமில காரத்தன்மை	Conductivity μmhos/cm மின் கடத்தும் திறன்	உயிர் வேதியியல் பிராண வாயுத் தேவை மி.கி/லி	Nitrate mg/L நைட்ரேட் மி.கி/லி	Nitrite mg/L நைட்ரைட் மி.கி/லி	Fecal coliform MPN/100 ml ஃகோல் கோலிபாக்டீரியம் எம்.பி.என்/100 மி.லி	Total coliform MPN/100 ml மொத்த கோலிபாக்டீரியம் எம்.பி.என்/100 மி.லி	Turbidity NTU கவங்கல் தன்மை	Phenolphthaleine Alkalinity mg/L பீனாப்தலின் காரத்தன்மை மி.கி/லி	Total Alkalinity mg/L மொத்த காரத்தன்மை மி.கி/லி	Chloride mg/L குளோரைடு மி.கி/லி	COD mg/L வேதியியல் பிராண வாயு தேவை மி.கி/லி	Total Kjeidahl Nitrogen mg/L மொத்த கெஜ்டால் நைட்ரஜன் மி.கி/லி	Ammonia-N as N mg/L அமோனியா நைட்ரஜன் மி.கி/லி	Hardness as CaCO3 mg/L கடினத்தன்மை மி.கி/லி	Calcium as Ca++ mg/L கால்சியம் மி.கி/லி	Magnesium as Mg++ mg/L மக்னீசியம் மி.கி/லி	Sulphate mg/L சல்பேட் மி.கி/லி	Sodium mg/L சோடியம் மி.கி/லி	Total Dissolved Solids mg/L மொத்த கரைந்துள்ள துகள்கள் மி.கி/லி	Total Fixed Solids mg/L மொத்த நிரைமிக்கப்பட்ட துகள்கள் மி.கி/லி	Total Suspended Solids mg/L மொத்த மிகக்குப் துகள்கள் மி.கி/லி	Phosphate mg/L பாஸ்பேட் மி.கி/லி	Boron mg/L போரான் மி.கி/லி	Potassium mg/L பொட்டாசியம் மி.கி/லி	Fluoride mg/L ஃப்ளூரைடு மி.கி/லி	DBU Class நீர்த்தரம்பிரிவுகள் குறிக்கப்பட்ட சிறந்த பயன் பிரிவு
1		Komarapalayam கொமராபாளையம்	6.38	7.50	508	3	0.45	0.79	240	683	14	15	145	64	25	4	2	167	34	20	20	55	380	346	16	0.22	<0.002	6	0.59	C
2		Urrachikottai உரச்சிகோட்டை	7.11	7.93	365	2	0.16	0.09	241	593	12	8	129	37	17	3	1	150	33	17	14	30	280	256	14	0.30	<0.002	4	0.46	C
3		Chirampalayam சிராம்பாளையம்	6.88	7.74	429	2	0.23	0.64	186	539	30	14	136	52	18	4	2	163	34	19	16	40	321	289	19	0.18	<0.002	5	0.52	C
4		Pugalur புகலூர்	7.48	8.04	595	2	0.40	0.07	297	800	7	13	157	87	20	3	1	215	46	27	33	66	440	408	13	0.40	<0.002	7	0.72	C
5		Pettavaithalai பேட்டவைதலை	6.95	8.15	511	1	0.39	0.04	197	576	15	16	143	62	17	3	2	175	40	18	23	43	359	333	20	0.20	<0.002	6	0.49	C
6		Kumbakonam கும்பகோணம்	7.16	7.88	484	2	0.17	0.10	129	350	20	24	133	66	25	3	1	164	38	17	18	49	351	327	28	0.29	<0.002	5	0.47	B
7		Mayiladuthurai மயிலாடுதுறை	5.00	7.64	399	3	0.05	0.03	63	210	23	8	112	35	16	3	1	116	26	13	5	25	260	235	28	0.16	<0.002	4	0.31	B
8		Sathiyamanagal am சத்தியமங்கலம்	7.10	7.08	209	1	0.11	0.04	91	230	10	<1	70	25	16	2	1	103	23	11	6	15	169	149	12	0.31	<0.002	3	0.33	B
9		Kalingalrayan Canal (B5) காளிங்கராயம் கால்வாய் (பி5)	6.58	7.83	436	1	0.18	0.03	225	588	11	10	146	40	17	4	2	195	44	20	20	29	320	294	21	0.29	<0.002	5	0.57	C
10		Kalingalrayan Canal (B10) காளிங்கராயம் கால்வாய் (பி10)	6.78	7.99	437	1	0.23	0.04	225	611	13	9	142	44	17	3	2	195	45	20	20	31	322	296	19	0.31	<0.002	5	0.57	C
11		Thirumanimuthar திருமணிமுத்தாறு	Nil	7.58	2267	42	1.13	3.11	446892	830100	26	40	585	385	151	16	10	594	89	113	47	269	1532	1389	53	3.81	<0.002	31	1.54	Below E
12		Vasista வசிஸ்டர்	Nil	7.12	2141	415	3.89	5.11	386275	769250	2447	30	716	395	646	32	12	572	139	82	50	212	1641	1519	238	12.76	2	110	9.05	Below E
13		Sarabanga சாரங்கா	2.01	7.50	2158	49	1.22	2.90	73067	158475	20	14	458	402	179	14	9	433	94	48	37	279	1424	1286	47	2.84	<0.002	41	1.51	Below E
*CPCB-GEMS / MINARS Water quality criteria																														
DBU Class-Designated Best Use																														
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																														
Below E Not meeting A,B,C,D & E Criteria																														

Annexure – 10 இணைப்பு – 10

TAMIRAPARANI RIVER WATER QUALITY-(UNDER MINARS PROGRAMME) 2018 - 2019 தாமிரபரணி நதி நீர் தரம் (இந்திய தேசி நீர்வள ஆதாரங்கள் கண்காணிப்பு திட்டத்தின்கீழ் 2018-2019

S.NO	வ. எண்	Stations நிலையங்கள்	Dissolved Oxygen mg/L தரைநீரின் ஆக்ஸிஜன் மி.கி/லி	pH அமில காரத்தன்மை	Conductivity μmhos/cm மின் கடத்தும் திறன்	BOD mg/L உயிர் வேதியியல் பிராண வாயுத் தேவை மி.கி/லி	Nitrate mg/L நைட்ரேட் மி.கி/லி	Nitrite mg/L நைட்ரைட் மி.கி/லி	Fecal coliform MPN/100 ml ஃபீகல் கோலிபாக்டீரியம் எம்.பி.என்/100 மி.லி	Total coliform MPN/100 ml மொத்த கோலிபாக்டீரியம் எம்.பி.என்/100 மி.லி	Turbidity NTU கலங்கல் தன்மை	Phenophthaline Alkalinity mg/L பிளாப்தலின் காரத்தன்மை மி.கி/லி	Total Alkalinity mg/L மொத்த காரத்தன்மை மி.கி/லி	Chloride mg/L குளோரைடு மி.கி/லி	COD mg/L வேதியியல் பிராண வாயு தேவை மி.கி/லி	Total suspended solids mg/L மொத்த நொய்டால் நைட்ரஜன் மி.கி/லி	Ammonia-N as N mg/L அமோனியா நைட்ரஜன் மி.கி/லி	Hardness as CaCO3 mg/L கடினத்தன்மை மி.கி/லி	Calcium as Ca++ mg/L கால்சியம் மி.கி/லி	Magnesium as Mg++ mg/L மக்னீசியம் மி.கி/லி	Sulphate mg/L சல்பேட் மி.கி/லி	Sodium mg/L சோடியம் மி.கி/லி	Total Dissolved Solids mg/L மொத்த கரைந்துள்ள துகள்கள் மி.கி/லி	Total Fixed Solids mg/L மொத்த நிர்ணயிக்கப்பட்ட துகள்கள் மி.கி/லி	Total suspended solids mg/L மொத்த மிதக்கும் துகள்கள் மி.கி/லி	Phosphate mg/L பாஸ்பேட் மி.கி/லி	Boron mg/L போரான் மி.கி/லி	Chloride mg/L மொட்டாசியம் மி.கி/லி	Fluoride mg/L ஃபுளோரைடு மி.கி/லி	DBU Class
1		Papanasam பப்பநாசம்	7.28	7.17	64	4	0.08	0.13	9	27	17	<1	7	11	21	1	1	16	5	1	4	3	44	39	4	<0.15	<0.002	1	<0.01	D
2		Cheranmadevi சேர்ன்மாடேவி	6.85	7.04	117	4	0.19	0.46	25	72	7	2	16	22	31	1	1	34	9	3	8	4	81	74	7	<0.15	<0.002	2	<0.01	D
3		Kokirakulam கோகிரகூலம்	6.46	7.05	145	4	0.22	0.54	27	88	4	2	21	25	35	2	1	44	11	3	11	6	99	92	7	<0.15	<0.002	2	<0.01	D
4		Murapanadu முரப்பநாடு	6.85	7.50	178	4	0.17	0.22	32	85	4	<1	27	33	36	3	1	66	19	3	11	10	123	114	6	<0.15	<0.002	2	<0.01	D
5		Thiruvaidamarudur திருவிடைமருதூர்	6.70	6.67	77	3	0.15	0.15	17	52	4	<1	12	17	29	1	1	25	7	2	5	3	58	52	6	<0.15	<0.002	1	<0.01	B
6		Ambasamudram அம்பாசமுத்திரம்	7.28	7.08	67	3	0.09	0.13	10	29	4	<1	9	11	27	1	1	18	5	2	3	3	45	40	4	<0.15	<0.002	1	<0.01	A
7		Athoor ஆத்தூர்	6.96	7.55	622	4	0.20	0.26	35	95	3	6	119	78	52	7	1	201	67	7	25	56	427	418	7	<0.15	<0.002	7	<0.01	D
8		Eral ஏரல்	6.60	7.55	349	4	0.17	0.21	36	92	2	4	65	47	45	4	1	111	35	6	16	21	239	230	6	<0.15	<0.002	3	<0.01	D
9		Kallidai Kurichi கள்ளிடை குறிஞ்சி	7.19	7.09	72	3	0.12	0.14	15	48	4	<1	10	12	27	1	1	21	6	2	4	3	49	43	5	<0.15	<0.002	1	<0.01	A
10		Srivakuntam சூரீவைகுண்டம்	6.59	7.50	204	4	0.17	0.21	31	87	3	5	37	37	41	4	1	77	22	4	12	10	141	133	6	<0.15	<0.002	2	<0.01	D
11		Vellakovil வெள்ளக்கோயில்	6.35	7.10	165	4	0.24	0.61	32	102	3	2	25	29	43	2	1	45	13	5	10	7	113	104	7	<0.15	<0.002	2	<0.01	D
12		Sivalaperi சிவலபேரி	6.28	7.15	168	4	0.25	0.70	38	132	3	2	24	31	41	2	1	51	14	3	12	7	114	105	8	<0.15	<0.002	2	<0.01	D

*CPCB-GEMS / MINARS Water quality criteria

DBU Class-Designated Best Use

mg/L-milligram per liter

MPN-Most Probable Number

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

Below E Not meeting A,B,C,D & E Criteria

Annexure- 11 இணைப்பு – 11
PALAR & VAIGAI RIVER WATER QUALITY(UNDER MINARS PROGRAMME)2018-2019
பாலாறு மற்றும் வைகை நதிகளின் நீர் தன்மை (மினார்ஸ்) 201–2018

S.NO	வ. எண்	Stations நிலையங்கள்	Dissolved Oxygen mg/L கரைந்துள்ள ஆக்ஸிஜன் மி.கி/லி	pH அமில காரத்தன்மை	Conductivity umhos/cm மின் கடத்தும் திறன்	BOD mg/L உயிர் வேதியியல் பிராண வாயுத் தேவை மி.கி/லி	Nitrate mg/L நைட்ரேட் மி.கி/லி	Nitrite mg/L நைட்ரைட் மி.கி/லி	Fecal coliform MPN/100 ml ஃபேகல் கோலிபாக்டீரியம் எம்.பி.என்/100 மி.லி	Total coliform MPN/100 ml மொத்த கோலிபாக்டீரியம் எம்.பி.என்/100 மி.லி	Turbidity NTU கலங்கல் தன்மை	Phenolphthalein Alkalinity mg/L பிளாப்தலின் காரத்தன்மை மி.கி/லி	Total Alkalinity mg/L மொத்த காரத்தன்மை மி.கி/லி	Chloride mg/L குளோரைடு மி.கி/லி	COD mg/L வேதியியல் பிராண வாயு தேவை மி.கி/லி	Total Kjeldahl Nitrogen mg/L மொத்த கஜெடால் நைட்ரஜன் மி.கி/லி	Ammonia-N as N mg/L அமோனியா நைட்ரஜன் மி.கி/லி	Hardness as CaCO3 mg/L கடினத்தன்மை மி.கி/லி	Calcium as Ca++ mg/L கால்சியம் மி.கி/லி	Magnesium as Mg++ mg/L மக்னீசியம் மி.கி/லி	Sulphate mg/L சல்பேட் மி.கி/லி	Sodium mg/L சோடியம் மி.கி/லி	Total Dissolved Solids mg/L மொத்த கரைந்துள்ள துகள்கள் மி.கி/லி	Total Fixed Solids mg/L மொத்த நிர்ணயிக்கப்பட்ட துகள்கள் மி.கி/லி	Total Suspended Solids mg/L மொத்த மிதக்கும் துகள்கள் மி.கி/லி	Phosphate mg/L பாஸ்பேட் மி.கி/லி	Boron mg/L போரன் மி.கி/லி	Potassium mg/L பொட்டாசியம் மி.கி/லி	Fluoride mg/L ஃப்ளூரைடு மி.கி/லி	DBU Class நீர்த்தரம்பரிசீலனை குறிக்கப்பட்ட சிறந்த பயன் பிரிவு
1		Vaigai வைகை	5.6 0	7.1 8	1218	6	14	-	2	4	0.3 1	< 1	264	209	80	3	<0.5 6	280	48	39	49	160	862	854	8	2	0.054	15	△0. 01	D
2		Palar பாலாறு	No Flow																											
*CPCB-GEMS / MINARS Water quality criteria																	MPN-Most Probable Number													
DBU Class-Designated Best Use			mg/L-milligram per liter																											
A - Drinking Water Source without conventional treatment but after disinfection			குடிநீர் ஆதாரம் வழக்கமான சுத்திகரிப்பின்றி ஆனால் நோய்கிருமி நீக்கியப்பின்																											
B - Outdoor bathing (organised)			வெளியுறக்குளியல் (எற்படுத்தப்பட்ட)																											
C - Drinking water source after conventional treatment and disinfection			குடிநீர் ஆதாரம் வழக்கமான சுத்திகரிப்புடன் மற்றும் நோய்கிருமி நீக்கம்																											
D-Propagation of wild life and fisheries			வன மற்றும் மீன்வள அபிவிருத்திக்கு உகந்தது.																											
E -Irrigation, Industrial cooling,controlled waste disposal			பாசனம், தொழிற்சாலை குளிரூட்டும்வாற்கும், கட்டுப்பாடுடன் கழிவுநீர் வெளியேற்றத்துடன் உகந்தவை																											
Below E Not meeting A,B,C,D & E Criteria			இ-க்கும் கீழ்-மேற்படி பிரிவுகளில் உட்படாதது.																											

Annexure - 12 இணைப்பு - 12
LAKE WATER QUALITY(UNDER MINARS PROGRAMME) 2018-2019
ஏரிகளின் நீர் தன்மை (மினார்ஸ்) 2018-2019

S.NO	வ.எண்	Stations நிலையங்கள்	Dissolved Oxygen mg/L கரைந்துள்ள ஆக்ஸிஜன் மிகிளி	pH அமில சாரத்தன்மை	Conductivity umhos/cm மின் கடத்துவ திறன்	BOD mg/L உயர் சூழலியல் பிராண வாயு தேவை மிகிளி	Nitrate mg/L நைட்ரேட் மிகிளி	Nitrite mg/L நைட்ரைட் மிகிளி	Fecal coliform MPN/100 ml ஃபேகல் கோலிபார்ம்ஸ் எம்பிசன்/100 மி.லி	Total coliform MPN/100 ml மொத்த கோலிபார்ம்ஸ் எம்பிசன்/100 மி.லி	Turbidity NTU கலங்கல் தன்மை	Phenophthaline Alkalinity mg/L பிளாப்தலின் சாரத்தன்மை மிகிளி	Total Alkalinity mg/L மொத்த சாரத்தன்மை மிகிளி	Chloride mg/L குளோரைடு மிகிளி	COD mg/L சூழலியல் பிராண வாயு தேவை மிகிளி	Total Kjeldahl Nitrogen mg/L மொத்த ஜேட்கால் நைட்ரஜன் மிகிளி	Ammonia-N as N mg/L அமோனியா நைட்ரஜன் மிகிளி	Hardness as CaCO3 mg/L ஷாசுத்தன்மை மிகிளி	Calcium as Ca++ mg/L கால்சியம் மிகிளி	Magnesium as Mg++ mg/L மக்னீசியம் மிகிளி	Sulphate mg/L சல்பேட் மிகிளி	Sodium mg/L சோடியம் மிகிளி	Total Dissolved Solids mg/L மொத்த கரைந்துள்ள துகள்கள் மிகிளி	Total Fixed Solids mg/L மொத்த நிலைமிகப்பட்ட துகள்கள் மிகிளி	Total Suspended Solids mg/L மொத்த மிதக்கும் துகள்கள் மிகிளி	Phosphate mg/L பாஸ்பேட் மிகிளி	Boron mg/L போரன் மிகிளி	Potassium mg/L பொட்டாசியம் மிகிளி	Fluoride mg/L ஃப்ளூரைடு மிகிளி	DBU Class நீர்தரம் பிரிவுகள் குறிக்கப்பட்ட சிறந்த யுகர் பிரிவு
1		Udhagamandalam உதகமண்டலம்	5.40	7.00	425	6	0.60	2.30	762	1934	17	<1	104	53	40	6	3	130	37	9	17	30	309	267	30	0.70	<0.00 2	11.95	0.60	E
2		Kodaikanal கொடைக்கானல்	6.90	6.79	205	4	5.12	1.98	49	70	1	<1	38	20	41	5	4	34	9	3	3	5	68	61	7	0.52	0.03	0.20	0.17	E
3		Yercaud ஏற்காடு	6.90	7.40	368	3	0.40	0.14	413	1002	18	4	106	51	29	5	3	134	39	9	8	32	281	250	30	0.40	<0.00 2	10.40	0.40	C
4		Veeranam வீரானம்	7.08	7.91	396	1	0.38	0.43	51	169	10	7	124	42	17	3	1	154	34	17	14	37	291	266	16	0.27	<0.00 2	4.64	0.41	B
5		Poondi பூண்டி	5.48	8.19	800	8	0.49	0.12	177	1339	17	15	100	80	42	8	4	145	34	15	51	72	367	304	15	<0.5	<0.00 1	5.08	0.44	E
6		Red Hills ரெட்ஹில்ஸ்	5.40	8.40	514	5	<1	0.20	94	983	20	16	90	76	34	9	5	115	25	12	33	51	299	229	14	<0.5	<0.00 1	5.10	0.20	E
7		Porur போரூர்	5.60	8.13	693	8	<1	0.14	90	625	21	16	84	141	48	10	5	135	29	15	42	73	424	332	14	<0.5	<0.00 1	12.27	0.30	E
8		Pulicat புலிகட்	6.90	6.79	205	4	5.12	1.98	49	70	1	<1	38	20	41	5	4	34	9	3	3	5	68	61	7	0.52	0.03	0.20	0.17	E
		*CPCB-GEMS / MINARS Water quality criteria																	mg/L-milligram per liter											
		DBU Class-Designated Best Use										mg/L-milligram per liter							MPN-Most Probable Number											
		A - Drinking Water Source without conventional treatment but after disinfection குடிநீர் ஆதாரம் வழக்கமான சுத்திகரிப்பின்றி ஆனால் நோய்கிருமி நீக்கப்பின்பின்																												
		B - Outdoor bathing (organised) வெளியூக்குளியல் (எற்படுத்தப்பட்ட)																												
		C - Drinking water source after conventional treatment and disinfection குடிநீர் ஆதாரம் வழக்கமான சுத்திகரிப்புடன் மற்றும் நோய்கிருமி நீக்கம்																												
		D-Propagation of wild life and fisheries வன மற்றும் மீன்வள அபிவிருத்திக்கு உகந்தது																												
		E -Irrigation, Industrial cooling,controlled waste disposal பாசனம், தொழிற்சாலை குளிரூட்டும்வார்ப்பும், கட்டுப்பாடுடன் கழிவுநீர் வெளியேற்றத்தின் உகந்தவை																												
		Below E Not meeting A,B,C,D & E Criteria இ-க்கும் கீழ்-மேற்படி பிரிவுகளில் உட்படாதது.																												
		* No COD Values																												

Annexure - 13A இணைப்பு - 13 அ									
ADYAR RIVER WATER QUALITY (UNDER CHENNAI CITY WATER WAYS PROGRAMME) 2018-2019									
2018-2019 - ஆம் ஆண்டின் அடையாறு ஆற்றநீரின் தன்மை (சென்னை நீர்வழிகள் தர கண்காணிப்பு திட்டம்)									
S. No. வ.எண்	Collecting Place சேகரிக்கும் இடம்	pH அமில / காரத்தன்மை	Conductivity µmhos/cm மின்கடத்தும் திறன்- மைக்ரோம்ஸ்/செ.மீ	TSS mg/L மொத்த மிதக்கும் திடப்பொருள் மி.கி/லி	TDS mg/L மொத்த கரைந்துள்ள திடப்பொருள் மி.கி/லி	Chlorides mg/L குளோரைடு மி.கி/லி	Ammonical Nitrogen mg/L அம்மோனியா நைட்ரஜன் மி.கி/லி	BOD mg/L உயிர் வேதியியல் பிராண வாயுத் தேவை மி.கி/லி	COD mg/L வேதியியல் பிராண வாயுத் தேவை மி.கி/லி
Sample Taken from River நதியில் எடுக்கப்பட்ட மாதிரி									
1	Manapakkam Bridge மணப்பாக்கம் பாலம்	-	-	-	-	-	-	-	-
2	Alandur Abraham Bridge ஆலந்தூர் ஆப்காம் பாலம்	7.79	2090	33	990	315	21	24	96
3	Thiru Vi Ka Bridge திரு.வி.க பாலம்	8.01	9041	51	5519	3207	24	27	223
Sample Taken from Industrial Outfalls தொழிற்சாலை வெளியேற்றத்தில் எடுக்கப்பட்ட மாதிரி									
4	Nesapakkam STP Outlet நெசபாக்கம் மனித வழி கழிவுநீர் சுத்திகரிப்பு நிலைய வெளியேற்றம்	8.24	1713	22	841	281	9	9	58
5	Nesapakkam STP Outlet Extn நெசபாக்கம் மனித வழி கழிவுநீர் சுத்திகரிப்பு நிலைய வெளியேற்ற விரிவாக்கம்	8.69	2036	21	1082	378	18	6	53
6	Nesapakkam STP Outlet Extn II நெசபாக்கம் மனித வழி கழிவுநீர் சுத்திகரிப்பு நிலைய வெளியேற்றம் விரிவாக்கம் II	8.61	2200	29	1151	425	14	9	60

Annexure- 13B இணைப்பு -13 ஆ									
BUCKINGHAM CANAL WATER QUALITY (UNDER CHENNAI CITY WATER WAYS PROGRAMME) 2018-2019									
2018-2019 ஆம் ஆண்டின் பக்கிள்காம் கால்வாய் நீரின் தன்மை (சென்னை நீர்வழிகள் தர கண்காணிப்பு திட்டம்)									
S. No. வ.எண்	Collecting Place சேகரிக்கும் இடம்	pH அமில / காரத்தன்மை	Conductivity µmhos/cm மின்கடத்தும் திறன்- மைக்ரோம்ஸ்/செ.மீ	TSS mg/L மொத்த மிதக்கும் திட்பொருள் மி.கி/லி	TDS mg/L மொத்த கரைந்துள்ள திட்பொருள் மி.கி/லி	Chlorides mg/L குளோரைடு மி.கி/லி	Ammonical Nitrogen mg/L அம்மோனியா நைட்ரஜன் மி.கி/லி	BOD mg/L உயிர் வேதியியல் பிராண வாயுத் தேவை மி.கி/லி	COD mg/L வேதியியல் பிராண வாயுத் தேவை மி.கி/லி
Sample Taken from River நதியில் எடுக்கப்பட்ட மாதிரி									
1	Kathivakkam Bridge கத்திவாக்கம் பாலம்	-	-	-	-	-	-	-	-
2	Manali Road Bridge மணலி சாலை பாலம்	-	-	-	-	-	-	-	-
3	Wallaja Road Bridge வாலாஜா சாலை பாலம்	7.59	3526	92	1732	605	42	51	269
4	Lattice Road Bridge லட்டீஸ் சாலை பாலம்	7.81	2629	22	1239	505	20	28	109
Sample Taken from Industrial Outfalls தொழிற்சாலை வெளியேற்றத்தில் எடுக்கப்பட்ட மாதிரி									
5	ETPS – Outlet எடிபிஎஸ் – வெளியேற்றம்	-	-	-	-	-	-	-	-
6	MRL - I Outlet எம் ஆர் எல் – I வெளியேற்றம்	-	-	-	-	-	-	-	-
7	MRL -II Outlet எம் ஆர் எல் – II வெளியேற்றம்	-	-	-	-	-	-	-	-
8	MFL Outlet எம் எப் எல் வெளியேற்றம்	-	-	-	-	-	-	-	-
9	Kodungaiyur STP Outlet-I கொடுங்கையூர் மனித வழி கழிவுநீர் சுத்திகரிப்பு நிலைய வெளியேற்றம் – I	7.85	2994	21	1429	521	32	12	79
10	Kodungaiyur STP Outlet-II கொடுங்கையூர் மனித வழி கழிவுநீர் சுத்திகரிப்பு நிலைய வெளியேற்றம் – II	7.87	2815	22	1369	520	23	13	72
11	Kodungaiyur 110 MLD STP Outlet கொடுங்கையூர் 110 எம் எல் டி மனித வழி கழிவுநீர் சுத்திகரிப்பு நிலைய வெளியேற்றம்	7.84	1945	18	980	249	16	10	66

Annexure- 13D இணைப்பு – 13 ஈ

OTTERI NALLAH RIVER WATER QUALITY (UNDER CHENNAI CITY WATER WAYS PROGRAMME) 2018 - 2019

2018-2019 ஆம் ஆண்டின் ஓட்டேரி கால்வாய் நீரின் தன்மை (சென்னை நீர்வழிகள் தர கண்காணிப்பு திட்டம்)

S. No. வ.எண்	Collecting Place சேகரிக்கும் இடம்	pH அமில / காரத்தன்மை	Conductivity µmhos/cm மின்கடத்தும் திறன்- மைக்ரோம்ஸ்/செ.மீ	TSS mg/L மொத்த மிதக்கும் திடப்பொருள் மி.கி/லி	TDS mg/L மொத்த கரைந்துள்ள திடப்பொருள் மி.கி/லி	Chlorides mg/L குளோரைடு மி.கி/லி	Ammonical Nitrogen mg/L அம்மோனியா நைட்ரஜன் மி.கி/லி	BOD mg/L உயிர் வேதியியல் பிராண வாயுத் தேவை மி.கி/லி	COD mg/L வேதியியல் பிராண வாயுத் தேவை மி.கி/லி
Sample Taken from River நதியில் எடுக்கப்பட்ட மாதிரி									
1	Block 'L' East Road Bridge தொகுதி 'எல்' கிழக்கு சாலை பாலம்	7.41	2128	40	1011	386	29	35	173
2	Asprin Garden Bridge ஆஸ்பிரின் தோட்ட பாலம்	7.72	2190	40	1035	394	31	40	154
3	Vyasarjadi Road Bridge வியாசாசாபாடி சாலை பாலம்	7.7	2110	51	989	376	34	40	140
Sample Taken from Industrial Outfalls தொழிற்சாலை வெளியேற்றத்தில் எடுக்கப்பட்ட மாதிரி									
4	ICF Shell ஐசிஎப் ஷேல்	-	-	-	-	-	-	-	-
5	Villivakkam STP Outlet வில்லிவாக்கம் மனித வழி கழிவுநீர் சுத்திகரிப்பு நிலைய வெளியேற்றம்	8.5	2492	50	1306	622	14	31	201

Annexure - 14 இணைப்பு - 14
Chennai Corporation in Ambient Noise Level for the YEAR April 2018 to March 2019 சென்னை மாநகரின் சுற்றுப்புற சராசரி ஒலி அளவு ஆண்டு சராசரி 2018 - 2019

Place இடம்	Standard Limit In Leq dB(A) வரையறுக்கப்பட்ட ஒலி அளவு		April ஏப்ரல்		May மே		June ஜூன்		July ஜூலை		August ஆகஸ்ட்		September செப்டம்பர்		October அக்டோபர்		November நவம்பர்		December டிசம்பர்		January ஜனவரி		February பிப்ரவரி		March மார்ச்	
	Day பகல்	Night இரவு	Day பகல்	Night இரவு	Day பகல்	Night இரவு	Day பகல்	Night இரவு	Day பகல்	Night இரவு	Day பகல்	Night இரவு	Day பகல்	Night இரவு	Day பகல்	Night இரவு	Day பகல்	Night இரவு	Day பகல்	Night இரவு	Day பகல்	Night இரவு	Day பகல்	Night இரவு	Day பகல்	Night இரவு
Eye Hosp. (S) கண் மருத்துவமனை(சி)	50	40	66	53	66	53	65	56	55	50	56	49	51	46	52	46	55	50	59	50	57	56	59	50	57	49
T. Nagar (C) தி. நகர்(வ)	65	55	75	73	73	71	75	72	74	73	73	72	71	70	71	69	72	70	72	69	71	70	72	69	72	70
Perambur (C) பெரம்பூர்(வ)	65	55	63	60	63	61	64	62	63	61	63	60	63	60	63	61	63	61	63	60	61	59	69	60	64	61
Guindy (I) கிண்டி(தொ)	75	70	76	75	76	75	78	73	75	71	75	70	75	73	75	71	75	72	75	72	75	70	75	73	76	74
Triplicane (R) திருவல்லிக்கேணி (கு)	55	45	73	65	70	66	72	68	73	66	64	50	60	56	66	58	65	59	50	46	58	50	54	50	52	49
Pallikaranai (C) பள்ளிக்கரணை (வ)	65	55	72	70	71	66	68	61	72	65	72	65	70	60	70	61	68	60	72	66	73	64	72	63	63	59
Velachery (R) வேளச்சேரி (கு)	55	45	81	65	81	76	63	60	59	53	58	50	58	50	56	51	80	73	58	51	64	56	66	60	66	61
Washermanpet (C) வண்ணாரப்பேட்டை(வ)	65	55	75	70	69	63	74	68	75	69	72	66	68	61	68	61	71	66	70	64	67	60	68	60	67	59
Anna Nagar (C) அண்ணா நகர்(வ)	65	55	65	63	64	59	65	60	65	59	63	58	62	56	62	55	63	54	64	56	61	55	62	54	63	55
Sowcarpet (R) செளகார்பேட்டை (கு)	55	45	65	64	65	56	66	56	65	58	64	55	65	56	63	53	63	53	62	51	61	50	59	46	54	45

Accounts

**AUDITOR'S REPORT TO THE MEMBERS OF THE
TAMILNADU POLLUTION CONTROL BOARD
FOR THE YEAR ENDED 31st MARCH 2019**

We have audited the attached Balance Sheet of Tamil Nadu Pollution Control Board as at March 31, 2019 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 said accounts read with the schedules thereto and the notes thereon attached hereto are subject to the following:

- a. *Refer point no II(e) of the notes to accounts with respect to Land advance of Rs.3.38 crores which is outstanding for a long time.*
- b. *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.33.23 crores requires adjustment in the books of accounts.*
- c. *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 to be remitted to the Ministry of Environment Forest, Government of India.*
- d. *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 of this organization. The Internal Audit wing has not furnished the report for the year under audit.*
- e. *Refer point No.III-Others 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 and Cess Re-Imbursement. However Consent Fees received in advance for Rs156.44 crores as on 31-03-2019 received during the year 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 31, 2019,
- b) In the case of the Receipts and Payments account, of the total receipts and payments of the Board for the year ended 31st March 2019 and
- c) In the case of the Income and Expenditure account, of the excess of Income over Expenditure for the year ended 31st March 2019.

For V.Vasudevan & Co.
Chartered Accountants [FR.NO: 04571 S]

Date: 25/10/2019
Place: Chennai
Partner [M.No. 021515]

S.d/-
V.Vasudevan,

TAMIL NADU POLLUTION CONTROL BOARD, CHENNAI - 600 032
Receipts and Payments for the year ended 31 March 2019
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.
		A. OPENING BALANCE							A. CAPITAL EXPENDITURE				
446744038.31	-	a. Bank	330876957.75	-			77872607.00		a. Assets - Land and Building	34330077.00			
583320848.00		b. Cash	-		939266275.75		13866619.00		b. Laboratory Equipment	30611142.00			
		Bank (Court Deposit)	608389318.00				-		c. Vehicles	-			
							415035.00		d. Furniture	1568453.00			
		B. GRANTS RECEIVED					7699301.00		e. Office Appliance	4066520.00			
-		a. From Government	-				184670.00		f. Library Books	-			
-		b. From other Agencies	-				-		g. Electrical Installation	902299.00			
-		c. Schemes	-				229321.00		h. Computer	-			
							2898571.00		i. Software	253700.00		71732191.00	
		C. FEES							B. REVENUE EXPENDITURE				
		a. Consultant Registration Fees	-				462967415.00		A. ADMINISTRATIVE				
6530.00		b. Cost of Application	-				171294117.00		a. Salaries	524249427.00			
1011649205.95		c. Consent Fees	1796413207.80				13550175.00		b. Pension&Gratuity Contributio	207882238.00			
63792075.00		d. Cess Collection	3030762.00				905500.00		c. Surrender Leave Salary	16329970.00			
-		e. Fees for handling H. Waste	-		1799443969.80		2599079.50		d. Bonus	796378.00			
									e. Medical Expenses	2983329.00		752241342.00	
		D. Services & Rental Charges							B. BOARD LABORATORY				
138612303.00		(Lab Analysis Charges Sch - A)					517070.00		a. Running Expenses of Lab.	2014549.00			
							1856788.00		b. Lab. Chemicals etc.,	2729886.00		4744435.00	
411683148.28		E. INTEREST ON INVESTMENT							C. RUNNING & MAINTENANCE				
									OF VEHICLE				
		F. MISCELLANEOUS							D. SCHEME				
5992822.44		a. Others (Schedule-B)	4067321.00				20640548.76					22410194.53	
44624954.00		b. Cess Re-imburement	-		4067321.00							-	
2706425924.98		C/o			3217935741.55		777496817.26		C/o			851128162.53	

TAMIL NADU POLLUTION CONTROL BOARD, CHENNAI - 600 032
Receipts and Payments for the year ended 31 March 2019
 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.
2706425924.98	G. DEPOSITS & ADVANCES		3217935741.55	777496817.26	E. MAINTENANCE & REPAIRS		851128162.53
16307499.00	a. Earnest Money Deposit	2742611.00		13853847.00	a. Buildings	9190382.00	
15899240.00	b. Security Deposit	1236250.00		55960.00	b. Furniture & Fixture	259939.00	
518928.00	c. Advance to Staff (Sch. - C)	84900.00		5120433.00	c. Scientific instruments	5633679.00	
7223418096.00	d. Short Term Deposit	6717889499.00	6721953260.00	1873322.50	d. Office Appliance	1776515.00	
				1213535.00	e. Electrical Installation	995401.00	
				323825.00	f. Insurance of Assets	401358.00	
				270980.50	g. Other Assets	1500191.00	19757465.00
740187394.00	H. OTHERS (Schedule - D)		1097884331.00	4685895.00	F. LAW CHARGES		94284941.00
				-	G. AUDIT FEES		-
				481707609.97	H. MISCELLANEOUS (Schedule-E)		358510719.74
				86723460.00	C. CESS REMITTANCE		3618416.00
				5755664.00	D. ADVANCE (Schedule - F)		7517103.00
				8303710006.00	E. DEPOSITS		
				80699451.00	a. Short Term Deposits	8052267808.00	
					b. Others (Schedule - G)	662111299.00	8714379107.00
				330876957.75	F. CLOSING BALANCE		
				608389318.00	a. Bank	485445055.28	
				-	b. Canara Bank(court Deposit)	503132363.00	
				-	c. Cash	-	988577418.28
10702757081.98	Total		11037773332.55	10702757081.98	Total		11037773332.55

Chennai - 600 032
 Date: 25/10/2019

Subject to our report of even date & Schedules + Notes attached
For V.Vasudevan &Co (FR.No :04571 S)
Chartered Accountants

S.d/-
K.L.Preetha M.Sc M.Ed M.Phil B.G.L
 Financial Adviser

S.d/-
Er D.Sekar M.Tech.,(Env.Engg)
 Member Secretary

S.d/-
A.V.Venkatachalam I.F.S
 Chairman

S.d/-
V.Vasudevan F.C.A., I.S.A
 Partner (M. No .021515)

ANNUAL STATEMENT OF ACCOUNT
Income and Expenditure Account for the year ended 31st March 2019.
See Rules 36 of Tamil Nadu Water (Prevention and control of Pollution) rules 1983.

PREVIOUS YEAR	EXPENDITURE	TOTAL OF SUB HEAD		TOTAL OF MAJOR HEADS	
		Rs.	Ps.	Rs.	Ps.
	A. Administrative				
222265874.00	a. Pay of officers and Pay of Establishment	400043279.00			
254981175.50	b. Allowance & Honoraria (Schedule-H)	132785361.00			
411632976.00	c. Contribution to Gratuity & Provision for Pension	492959867.00			
52468375.00	d. Surrender Leave Salary	19847917.00		1045636424.00	
4680066.80	B. Running Expenses of Labs.			4283247.42	
21730421.14	C. Running and Maintenance of Vehicle (Schedule-I)			23399806.15	
	D. Maintenance and Repairs				
127241.00	a. Furniture & Fixtures	327689.00			
5327157.00	b. Lab. Equipments & Instruments	7212656.00			
2902983.00	c. Office Appliance & Others	3961285.00			
1349507.00	d. Electrical Installation	1032676.00			
13328741.00	e. Building	8288592.00		20822898.00	
345303.00	E. Fees to Consultants and Specialists			599099.00	
5292110.00	F. Law Charges			107689081.00	
125000.00	G. Fees for Audit			175000.00	
466235117.39	H. Miscellaneous (Schedule-J)			358115272.04	
63782747.00	I. Depreciation			69354462.00	
19394681.58	J. Prior Period Adj.Account			6943328.85	
836587762.58	K. Excess of income over Exp.trf to B/S			1857975026.83	
2382557238.99	Total			3494993645.29	

PREVIOUS YEAR	INCOME	TOTAL OF SUB HEAD		TOTAL OF MAJOR HEADS	
		Rs.	Ps.	Rs.	Ps.
	A. Grants received				
-	a. From Government	-			
-	b. From other Agencies	-			
-	Less: Amount utilised for Capital Expenditure	-			
-	Net Grant available for Revenue Expenditure	-			
1512004919.27	B. Fees (Schedule-K)			2420248165.29	
140831794.00	C. Services & Rental Charges (Schedule-L)			145688022.00	
	D. Miscellaneous Receipts				
6652724.44	a. Others (Schedule-M)	5418256.00			
44624954.00	b. Cess Reimbursement			5418256.00	
678442847.28	E. Interest on Investment			923639202.00	
-	F. Prior Period Adj.Account			-	
2382557238.99	Total			3494993645.29	

Chennai - 600 032
Date: 25/10/2019

Subject to our report of even date & Schedules + Notes attached
for **V. Vasudevan & Co., (FR.NO:04571 S)**
Chartered Accountants

S.d/-
K.L.Preetha M.Sc, M.Ed,M.Phil,B.G.L.
Financial Adviser

S.d/-
Er.D.Sekar, M.Tech.,(Env.Engg)
Member Secretary

S.d/-
A.V. Venkatachalam IFS.,
Chairman

S.d/-
V.Vasudevan F.C.A., I.S.A.,
Partner [M.No.021515]

ANNUAL STATEMENT OF ACCOUNT
Balance Sheet as on 31st March 2019.
See Rules 36 of Tamil Nadu Water (Prevention and control of Pollution) rules 1983.

PREVIOUS YEAR		LIABILITIES		TOTAL OF SUB HEAD		TOTAL OF MAJOR HEADS		PREVIOUS YEAR		ASSETS		TOTAL OF SUB HEAD		TOTAL OF MAJOR HEADS				
Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.			
		A. CAPITAL FUND								A. FIXED ASSETS								
		a. Grants								a. Land Development								
		i. Grants received from Govt. for capital exp. upto the yr.2004-05.								b. Buildings Under Construction								
54526922.18				54526922.18										33100254.65	171407288.65			
		ii. Grants received from Govt. for capital exp. During the current year and utilised.								B. OTHER ASSETS								
-				-						a. As per Form XV						351603427.17	358858688.17	
		iii. Grants received towards specific schemes from other agencies								b. Stock in hand								
-				-						i. Lab Chemicals						1646953.19	1213709.06	
		iv. Less: Amount transferred to Depreciation Fund								ii. Misc. Stores						1139559.27	195866.19	
				-						iii. Glassware						202556.20	1059486.51	
				-				54526922.18		iv. Filter Paper						1558899.85	2369010.33	
		b. Excess of Income over Expenditure									C. SUNDRY DEBTORS							
		i. As at 01.04.18									a. Cess Receivable							
7715500992.91				8470508700.49						i. From Industries						6999397364.90	6995835276.90	
836587762.58		ii. Add: Surplus during the year								ii. From Local Bodies						1544958780.80	1543456431.80	
				10328483727.32						Less: Cess unrecoverable						-	8539291708.70	
		iii. Less: Amount transferred to Depreciation Fund									b. Receivable-Project study& others						70862630.00	10257621097.32
(81580055.00)				70862630.00						c. Ways and Means Advance Receivable							205607760.00	
		B. EARMARKED FUND									d. Tax Refundable / Receivable							240752715.50
		a. Pension Fund (Schedule-N)									D. ADVANCES & DEPOSITS							
3926285297.00		b. Depreciation Fund (Sch-N)									a. Misc. amounts recoverable (Schedule - R)						2329651.00	1633476342.00
854840260.41		c. E.L. encashment Fund (Sch-N)									b. Advance to Staffs (Schedule - S)						240752715.50	6729731.00
403490505.00		d. CETP Development Fund									c. Deposits (Schedule - T)						244533429.00	2693877.00
3363250.00				3363250.00				5717228601.41		a. Misc. amounts recoverable (Schedule - R)						244533429.00	1633476342.00	
		C. OTHER DEPOSITS									b. Advance to Staffs (Schedule - S)						690312082.15	6729731.00
		a. Deposits for supply & works (Schedule -O)									c. Deposits (Schedule - T)						8805128.00	2693877.00
720523996.68		b. Eco Devlpt. Measure Deposit									a. Misc. amounts recoverable (Schedule - R)						2697923.00	1642899950.00
3729000.00				3729000.00				627302015.68		b. Advance to Staffs (Schedule - S)								
		D. AMOUNT DUE									c. Deposits (Schedule - T)							
		a. Cess Payable									a. Misc. amounts recoverable (Schedule - R)						8550936080.08	8550936080.08
8554554496.08		Less: Cess unrecoverable									b. Other Liability (Schedule -P)						-	197445059.00
-				-				8550936080.08		C/o								
61842442.38				-				197445059.00		C/o								
		C/o									C/o						23053664870.22	25405059775.67
								25405059775.67		C/o						10227278039.68	11415707171.11	

ANNUAL STATEMENT OF ACCOUNT
Balance Sheet as on 31st March 2019.
 See Rules 36 of Tamil Nadu Water (Prevention and control of Pollution) rules 1983.

PREVIOUS YEAR	LIABILITIES	TOTAL OF SUB HEAD		TOTAL OF MAJOR HEADS	
		Rs.	Ps.	Rs.	Ps.
23053664870.22	B/f			25405059775.67	
264956.98	E. ENVIRONMENTAL IMPACT STUDY			264956.98	
1131840447.89	F. INCOME RECEIVED IN ADVANCE <i>(Schedule - Q)</i>			1581957312.40	
21498500.00	G. SUBSIDIES FOR COMMON EFFLUENT TREATMENT PLANTS			21498500.00	
1189893.34	H. ENVIRONMENTAL EDUCATION FUND RESERVE			1189893.34	
500000.00	I. EMERGENCY RESPONSE CENTRE			489400.00	
-	J. C P C B GREEN BELT			-	
1965077.00	K. SCHEMES			1965077.00	
11885550.00	L. SPONSORSHIP FOR SCHEMES			11885550.00	
24222809295.43	Total			27024310465.39	

PREVIOUS YEAR	ASSETS	TOTAL OF SUB HEAD		TOTAL OF MAJOR HEADS	
		Rs.	Ps.	Rs.	Ps.
10227278039.68	B/f			11415707171.11	
3926285297.00	E. INVESTMENTS 1. Pension Fund Investment 2. Depreciation Fund Investment 3. EL Encashment Fund Inv. 4. CETP Develop. Fund Investment 5. Other term deposits			4346714804.00	
854840260.41				976993306.41	
403490505.00				390157241.00	
3363250.00				3363250.00	
7868285667.59				8902797274.59	14620025876.00
330876957.75	F. CASH & BANK BALANCE a. Balance with Banks b. Bank (Court Deposit) c. Cash on hand			485445055.28	
608,389,318.00				503132363.00	
-				-	988577418.28
24222809295.43	Total			27024310465.39	

Chennai - 600 032
 Date: 25/10/2019

Subject to our report of even date & Schedules + Notes attached
 for **V. Vasudevan & Co., (FR.NO:04571 S)**
Chartered Accountants

S.d/-
 K.L.Preetha M.Sc, M.Ed,M.Phil,B.G.L.
 Financial Adviser

S.d/-
 Er.D.Sekar, M.Tech.,(Env.Engg)
 Member Secretary

S.d/-
 A.V. Venkatachalam IFS.,
 Chairman

S.d/-
 V.Vasudevan F.C.A., I.S.A.,
 Partner [M.No.021515]

FORM - XV
ANNUAL STATEMENT OF ACCOUNTS - FIXED ASSETS AS ON 31st MARCH 2019.
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 01/04/2018	Additions and Adjustment during the year	Total	Depreciation	Closing Balance on 31/03/2019	Cumulative Depreciation on 31/03/2019
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs. P.
1	Building	10.00%	229228003.20	-	229228003.20	22922800.00	206305203.20	201924724.60
2	Computer	60.00%	5031588.13	990812.00	6022400.13	2150735.00	3871665.13	67480150.00
3	Electrical Installations	15.00%	2653185.68	1045898.00	3699083.68	554863.00	3144220.68	9429500.11
4	Furniture & Fixture	10.00%	11632856.31	1948070.00	13580926.31	1170079.00	12410847.31	27897679.23
5	Lab Equipment	33.33%	75263327.24	33462908.00	108726235.24	36508072.00	72218163.24	250842319.57
6	Library Books	10.00%	1641396.93	-	1641396.93	164140.00	1477256.93	6666631.03
7	Office Appliance	10.00%	17080601.53	34464680.00	51545281.53	3531279.00	48014002.53	28218944.14
8	Vehicle	33.33%	5854267.15	5951823.00	11806090.15	2550893.00	9255197.15	61288011.43
9	Software Development	60.00%	3218201.00	253700.00	3471901.00	1309769.00	2162132.00	7188830.00
	Total		351603427.17	78117891.00	429721318.17	70862630.00	358858688.17	660936790.11

Chennai - 600 032

Date: 25/10/2019

Subject to our report of even date & Schedules + Notes attached
for V. Vasudevan & Co., (FR.NO:04571 S)
Chartered Accountants

S.d/-
K.L.Preetha M.Sc, M.Ed,M.Phil,B.G.L.
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Member Secretary

S.d/-
A.V. Venkatachalam IFS.,
Chairman

S.d/-
V.Vasudevan F.C.A., I.S.A.,
Partner [M.No.021515]

**SCHEDULE FORMING PART OF RECEIPTS AND PAYMENTS ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2019**

RECEIPTS

**SCHEDULE - A
Services & Rental Charges**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Air Ambient Quality Survey		67038484.00
2	Analysis Charges		58258936.00
3	Bio Medical Management		199150.00
4	Cess Appeal Fees		50.00
5	GEMS / MINARS / NAMP		18224079.00
	TOTAL		143720699.00

**SCHEDULE - B
MISCELLANEOUS RECEIPTS**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Environment Training Institute		0.00
2	Interest on Loans & Advance		737823.00
3	Miscellaneous Income		3270312.00
4	Right to Information Fees		46811.00
5	Sale of legal Books		2375.00
6	Profit /loss on Sale of Assests		0.00
7	Appellate Authority Fees		10000.00
	TOTAL		4067321.00

**SCHEDULE FORMING PART OF RECEIPTS AND PAYMENTS ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2019**

**SCHEDULE - C
ADVANCE TO STAFF (Receipts)**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Motor Vehicle Advance		78200.00
2	Personal Computer Advance		6700.00
	TOTAL		84900.00

**SCHEDULE - D
ADVANCES AND DEPOSITS**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Cess received in advance		887065.00
2	Consent Fees received in advance	1074813478.00	
3	Analysis Fees Advance		1993020.00
4	AAQS Fees Advance		145900.00
5	Miscellaneous Deposit		5318.00
6	Rent Advance		84000.00
7	SEIAA/SEAC		4042837.00
8	Sundries Payable		150000.00
9	Deposit Court - Oil Compensation		7800000.00
10	Environmental Compensation - Cumulative Prod		7962713.00
	TOTAL		1097884331.00

**SCHEDULE FORMING PART OF RECEIPTS AND PAYMENTS ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2019**

PAYMENT

**SCHEDULE - E
MISCELLANEOUS**

SL.NO	DESCRIPTION	Rs.	Ps.
1	AAQS Expenses		3254909.00
2	Advertisement & Publicity		6838820.00
3	Appellate Authority Expenses		1368150.00
4	Bank interest and commission		84424.04
5	Board Meeting Expenses		4508433.00
6	Consultant Fees		585911.00
7	Contract Charges / Wages		55885702.00
8	Conveyance		534138.00
9	Electricity / Water Charges		12424862.00
10	Entertainment		145161.00
11	Environmental Study Expenses		3770800.00
12	Emergency Response centre		10600.00
13	Environment Pavilion Exp		86270.00
14	ETI Expenses		27600.00
15	Land Maintenance Expenses		97366.00
16	Leave Travel Concession		24575.00
17	Miscellaneous Expenses		2055979.00
18	Newspaper & periodicals		390585.00
19	Office Expenses		2437984.50
20	Outstanding Expenses		3266471.00
21	Petty Cash Expenses		306893.00
22	Pollution Awareness Expenses		11374323.00
23	Eco Restoration of lakh		21000000.00
24	Postage / Telegram		2205794.00
25	Printing and Stationery		5155100.50
26	Prior Period Expense		5889544.70
27	Property tax		881101.00
28	TDS-GST		12437.00
29	Public Hearing		290001.00
30	Rent		5537769.00
31	Staff Welfare Expenses		4398522.00
32	Telephone and Telex		2712864.00
33	Trade Fair		1810477.00
34	Training and Seminar		1623760.00
35	Travelling expenses		8235379.00
36	Other Legal Expenses		66534.00
37	Honorium / Sitting Fees		195050.00
38	Turn duty and Overtime Allow.		16430.00
	TOTAL		358510719.74

**SCHEDULE FORMING PART OF RECEIPTS AND PAYMENTS ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2019**

PAYMENT

**SCHEDULE - F
ADVANCE TO STAFF (PAYMENT)**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Festival Advance		1222000
2	Handloom Advance		402120
3	Leave Travel Concession		6875
4	Temporary Advance		5863498
5	Tour Advance		22610
	TOTAL		7517103

**SCHEDULE - G
DEPOSITS AND ADVANCES (PAID) (OTHERS)**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Advance to Suppliers		328464277
2	Earnest Money Deposit		3935685
3	Electricity Deposit		2960
4	Security Deposit		1020315
5	Amount Receivable - Others Pallikaranai		203025000
6	Land Advance		12228410
7	CPCB - Green Belt		0
8	Other Advance (Sun Drs)		0
9	Receivable - Project Study		249400
10	Income Tax Receivable		2000000
11	Others (Court Deposits)		110996854
12	Retention Money Deposit		188398
	TOTAL		662111299

**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH - 2019.**

EXPENDITURE

**SCHEDULE - H
ALLOWANCES AND HONORORIA**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Allowances	76689466.00	
2	Bonus	785878.00	
3	Contributory Pension Scheme / FBF	10300516.00	
4	Health Insurance	143609.00	
5	Leave Travel Concession Expenses	31450.00	
6	Medical Reimbursement	1720123.00	
7	Pay Commission Arrears	34973473.00	
8	Special Provident Fund-Board's Contribution	400000.00	
9	Travelling Expenses	7724416.00	
10	Turn Duty and Overtime Allowances	16430.00	
	TOTAL	132785361.00	

**SCHEDULE - I
RUNNING AND MAINTENANCE OF VEHICLES**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Fuel	7182576.15	
2	Hire Charges	13525980.00	
3	Insurance	751736.00	
4	Repairs	1939514.00	
	TOTAL	23399806.15	

**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2019.**

EXPENDITURE

**SCHEDULE - J
MISCELLANEOUS**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Air Ambient Quality Survey Expenses		805796.00
2	Advertisement & Publicity		6016748.00
3	Appellate Authority Expenses		3190681.00
4	Bank Charges		84323.04
5	Board Meeting / Other meeting Expenses		4709551.00
6	Contract Charges / Wages		56816747.00
7	Conveyance Expenses		459325.00
8	DEE Legal sample		530490.00
9	Electricity & Water Charges		12942767.00
10	Entertainment Expenses		275641.00
11	Environment Study Expenses		3770800.00
12	Environmental Pavilion Expenses		86270.00
13	ETI Expenses		98704.00
14	Financial Assistance to Projects		7121600.00
15	Honorarium / Sitting Fees		202050.00
16	Insurance of Assets		401358.00
17	Land Maintenance Expenses		97366.00
18	Newspaper and Periodicals		410446.00
19	Office Expenses		5882877.50
20	Pollution Awareness Expenses		9223034.00
21	Eco Restoration of Lake		21000000.00
22	Plastic Awareness Expenses		5591319.00
23	Other Legal Expenses		378716.00
24	Postage Expenses		2257644.00
25	Printing & Stationery		5370372.50
26	Property Tax and Rates		895321.00
27	Public hearing Expenses		1442455.00
28	Rent on Buildings		5809363.00
29	Staff Welfare Expenses		4699673.00
30	Sundries		2169809.00
31	Telephone Expenses		2569696.00
32	Trade Fair Expenses		2037092.00
33	Training and Seminar Expenses		1767237.00
	TOTAL		358115272.04

**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2019.**

INCOME

**SCHEDULE - K
FEES**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Consent Fees	2420248165.29	
2	Consent Forms		-
	TOTAL	2420248165.29	

**SCHEDULE - L
SEVICES AND RENTAL CHARGES**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Air Ambient Quality Survey	67229984.00	
2	Analysis Charges	60233959.00	
3	NAAQM / NAMP / GEMS	18224079.00	
	TOTAL	145688022.00	

**SCHEDULE - M
MISCELLANEOUS**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Bio-Medical Waste Authorisation Fees	199150.00	
2	Cess Appeal Fees	50.00	
3	Fees for Right to Information	46811.00	
4	Interest on Loans & Advance	2081730.00	
5	Miscellaneous Income	2129330.00	
6	Sale of Books	2375.00	
7	Appellate Authority Fees	10000.00	
8	Profit on sale of Assets	948810.00	
	TOTAL	5418256.00	

**SCHEDULE FORMING PART OF BALANCE SHEET
AS ON 31st MARCH 2019.**

**SCHEDULE-N
EARMARKED FUND**

PENSION FUND ACCOUNT

SL.NO	DESCRIPTION		AMOUNT
1	Opening balance as on 01-04-18		3926285297.00
	Add: Interest @ 6%		235577118.00
			4161862415.00
	Less: Disbursement from fund		
	a) Pension disbursed by Corp. Office	101948104.00	
	b) Pension disbursed by Units	71832834.00	
			173780938.00
			3988081477.00
	Add: Contribution to the Fund		358633327.00
	Closing balance as on 31-03-19		4346714804.00

EARN LEAVE ENCASHMENT FUND

SL.NO	DESCRIPTION		AMOUNT
2	Opening balance as on 01-04-18		403490505.00
	Add: Interest @ 6%		24209430.00
			427699935.00
	Less: Disbursement from fund		
	a) Disbursement to retirees-Board	21326034.00	
	b) Disbursement to retirees-Units	19751180.00	
			41077214.00
			386622721.00
	Add: Contribution to the Fund		3534520.00
	Closing balance as on 31-03-19		390157241.00

DEPRECIATION FUND ACCOUNT

SL.NO	DESCRIPTION		AMOUNT
3	Opening balance as on 01-04-18		854840260.41
	Add: Interest @ 6%		51290416.00
			906130676.41
	Add: Depreciation		70862630.00
	Closing balance as on 31-03-19		976993306.41

**SCHEDULE FORMING PART OF BALANCE SHEET
AS ON 31st MARCH 2019.**

LIABILITIES

**SCHEDULE - O
OTHER DEPOSITS**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Deposit- Court	595105239.23	
2	Earnest Money Deposit	7266916.00	
3	Miscellaneous Deposits	358394.00	
4	Retention Money Deposits	169007.00	
5	Security Deposits	20673459.45	
	TOTAL	623573015.68	

**SCHEDULE - P
OTHER LIABILITIES**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Outstanding Liability	192542162.00	
2	Pay Roll Liabilities	3239859.00	
3	Staff Claim Payable	197825.00	
4	Tax Deducted at Source (Staffs)	880883.00	
5	Tax Deducted at Source (Others)	3780.00	
6	GST (TDS)	179134.00	
7	GST - Sales	189374.00	
8	Sundry creditors (Others)	212042.00	
	TOTAL	197445059.00	

**SCHEDULE - Q
INCOME RECEIVED IN ADVANCE**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Anylysis charges	4125165.00	
2	Cess Fees	13229995.00	
3	Consent Fees	1564456252.40	
4	AAQS Advance	145900.00	
	TOTAL	1581957312.40	

**SCHEDULE FORMING PART OF BALANCE SHEET
AS ON 31st MARCH 2019.**

ASSETS

**SCHEDULE - R
MISCELLANEOUS ADVANCES**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Advance to Suppliers	333226751.00	
2	Interest Receivable	1258546128.00	
3	Land Advance	38800513.00	
4	NGT - Receivable	1354177.00	
5	Rent Advance	1548773.00	
	TOTAL	1633476342.00	

**SCHEDULE - S
ADVANCES TO STAFF**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Festival Advance	831700.00	
2	Handloom Advance	251120.00	
3	Imprest	15855.00	
4	Motor Vehicle Advance	2413725.00	
5	Personal Computer Advance	682377.00	
6	Temporary Advance	464034.00	
7	Tour Advance	53131.00	
8	House Building Advance	2017789.00	
	TOTAL	6729731.00	

**SCHEDULE - T
DEPOSITS**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Customs Deposit	295552.00	
2	Electricity Deposit	1327992.00	
3	Gas Deposit (Miscellaneous deposit)	43129.00	
4	Telephone Deposit	1027204.00	
	TOTAL	2693877.00	

Notes Forming Part of the Accounts for the year ended 31st March 2019.

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 depreciation is Rs.6,93,54,462/-, this excludes a sum of Rs.15,08,168/- pertaining to prior year in respect of Lab Equipment capitalized during this year. Accordingly, Depreciation Fund has been arrived at as per existing procedure in place.

(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: 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.

c) Earned Leave: 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.

II Notes on Accounts:

a) Consent Fees / Cess

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 has not been quantified.

Cess: Consequent to implementation of The Goods & Service Tax, 2017 wef 01-07-2017, the water cess is subsumed Vide Government of India, MOEF 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. However, the collection made against the pending demand prior to 01-07-2017 is directed to remit 20% of share to Consolidated Fund of India and retain 80% of Collection with Board vide MOEF letter No: Q-17011/01/2017-CPW dated 23-04-2018.

Out of the Cess collected and remitted 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.

b) Interest accrued on deposits has been adopted as worked out by Board.

c) 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 two years, may have to be filled up

d) Fixed Assets:

The fixed assets have been physically verified by independent Officers of the Board.

e) Land Advances:

This represents amount paid towards the land cost to SIPCOT and others amounting to Rs.3,88,00,513/-.

f) Advance to suppliers:

Advance to Suppliers for purchase of assets / Other expenditure and is pending in respect of the following branches :

CIDM : Rs.3,17,13,212

Construction :Rs.1,43,38,796

Laboratory :Rs.28,56,61,643

Administration :Rs. 6,13,100 Total : Rs33,23,26,751/-

g) 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	<u>346.11</u>	696.65
v)	Local bodies (Water Cess)		154.34

h) 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	
Total	184,75,39,214	135,47,36,622	25,65,70,509	

Refund of Rs.12,035/- being TDS deducted during 2017-18 has been initiated for adjustment against pending disputed demand.

Rs.69,44,324/- & Rs.5,49,265 being TDS deducted during 2018-19 by Canara Bank and Power Finance have been accounted for subject to further adjustment against pending disputed demand during assessment.

Rs.8,500/- is deducted as TDS by TANGEDCO by during 2018-19
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.

In view of pending Writ petitions in Hon.ble High Court and appeals in ITAT, No provision has been made.

i) 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

During current year 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, .

j) Pension Fund

The assumptions for valuation are as under:

Date of Valuation	31-03-2018	31-03-2019
Employee Profile		
Age of Retirement	58 / 60 years	58 / 60 years
No. of Employees –Active	410	339
Total monthly Basic Pay + Grade Pay	2,56,54,272/-	2,18,27,109
Total monthly Basic Pay + Grade Pay + DA	2,69,37,003/-	2,44,46,356
No. of pensioners	288	342
Total monthly pension (Basic Pension + DA)	76,01,116/-	97,87,459
No. of family pensioners	56	67
Total monthly family pension (Basic Pension + DA)	10,06,144/-	14,31,512
Average Age of Employees (Actives)	53.8	54.0
Average Past Service of Employees	26.0	26.2
Average Age of Pensioners & Family Pensioners	61.1	61.1
Assumptions as per AS 15R		
Discount rates as per Para 78 of AS15R	7.52%	7.30%
Basic Salary escalation fixed by the Enterprise as per		

Para 83-91 and 120(1) of AS15R	3.00%	3.00%
Pension Escalation Rate (DA Increase)	12.00%	12.00%
Attrition rate fixed by Enterprise	1.00%	1.00%

SUMMARY OF KEY RESULTS

Present value of obligation **3,92,62,85,297/-** **4,34,67,14,804**

Following the consistence in Accounting policy interest @ 6% p.a. on opening balance is credited to the Pension Fund each year and adjusted against Interest on Term Deposit.

k) Earned Leave Encashment Fund:

The assumptions for valuation are as under:

Date of Valuation	31-03-2018	31-03-2019
Employee Profile		
Age of Retirement	58 / 60 years	58 / 60 years
No. of Employees	620	546
Total monthly relevant salary for leave encashment	3,37,56,653/-	3,21,81,668/-
Average Age	49.7	49.7
Average past service	18.9	18.8
No. of leave days (EL)	1,48,800.0	1,31,040.0
No. of Leave days (UEL-PA)	55,800.0	49,140.0
Decrement adjusted /estimated future service	7.7	7.7
Assumptions as per 78 of AS 15R		
Discount rates as per Para 78	7.52%	7.30%
Expected rate of return computed by the Enterprise as per Paras 107-109 of AS 15R	0.00%	0.00%
Salary escalation fixed as per Para 83-91 and 120(1) of AS 15R	9.00%	9.00%
Attrition rate fixed	1.00%	1.00%
Expected Utilization Pattern of Carried Forward: Earned Leave of Proportion of Leave availment.		
Proportion of encashment during service	0.00%	0.00%
Proportion of encashment on separation	90.00%	90.00%
Expected Utilization Pattern of Carried Forward: UnEarned Leave of Proportion of Leave availment		
Proportion of encashment during	0.00%	0.00%

service Proportion of encashment on separation	100.00%	100.00%
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Proportion lapsed on separation	0.00%	0.00%
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Funding Mechanism **Unfunded**

SUMMARY OF KEY RESULTS

Present value of obligation

EARNED LEAVE	29,16,10,266	29,16,10,266
UNEARNED LEAVE		10,82,88,572
	11,18,80,239	

l) Contingent Liability:

1. 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.

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

n) 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. a) Others: Based on the various Government Orders, funds were released for various projects. In this connection, the Completion Certificate / Utilization Certificate may have to be obtained in respect of Eco Restoration Projects in Perundurai Taluk (Rs.4.90 Crores), Erode District (Rs.2.75 Crores), Elampalayam Eri (Rs.11 Crores), Amma Eco Park, (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) etc.,

b) Legal Fees: Based on the Board's approval / Government Orders, a total sum of Rs.10,34,40,000/- has been paid as legal fees towards Sterlite case

S.d/-
Financial Adviser

S.d/-
Member Secretary

S.d/-
Chairman

For V.Vasudevan & Co.
Chartered Accountants [F.R.No: 04571 S]

Date:- 25/10/2019
Place: Chennai

S.d/-
V.Vasudevan, Partner. [M.No.021515]

PHOTOGRAPHS

புகைப்படங்கள்



Green Award 2018 to District Collectors
2018 ஆம் ஆண்டிற்கான பசுமை விருதுகள் மாவட்ட ஆட்சியர்களுக்கு வழங்குதல்



Green Award 2018 to Industries
2018 ஆம் ஆண்டிற்கான பசுமை விருதுகள் தொழிற்சாலைகளுக்கு வழங்குதல்



Green Award 2018 to Educational Institutions
2018 ஆம் ஆண்டிற்கான பசுமை விருதுகள் கல்வி நிறுவனங்களுக்கு வழங்குதல்



Green Award 2018 to Residential Welfare Associations
2018 ஆம் ஆண்டிற்கான பசுமை விருதுகள் குடியிருப்போர் நலச்சங்கங்களுக்கு வழங்குதல்



Inauguration of New Office Building through video conferencing for O/o DEE, TNPCB, Tiruvallur
திருவள்ளூர் மாவட்ட சுற்றுச்சூழல் பொறியாளர் அலுவலகத்திற்கான புதிய கட்டடம் கானொலி காட்சி மூலம் திறந்து வைத்தல்.



Handover of coir bags to the public so as to promote eco friendly products the ban on one time use and throw plastics.
சுற்றுச்சூழலுக்கு உகந்த சணல் பைகள் பொது மக்களுக்கு வழங்குதல்.



Bhogi awareness Campaign meeting on 12.01.2019
போகிப்பண்டிகை விழிப்புணர்வு கூட்டம் 12.01.2019



Bhogi awareness Campaign on 12.01.2019
போகிப்பண்டிகை விழிப்புணர்வு பிரச்சாரம் 12.01.2019



Distribution of Gold and Silver coins to the lucky winners who brought eco friendly carry bags for the Tiruvannamalai Maha Deepam Festival

திருவண்ணாமலை கார்த்திகை மகாதிப திருவிழாவின்போது துணிப்பை, சணல்பை மற்றும் சுற்றுச்சூழலுக்கு உகந்த தூக்கு பைகளை கொண்டுவரும் பொது மக்களுக்கு குலுக்கல் முறையில் தங்கம் மற்றும் வெள்ளி நாணயங்கள் பரிசு வழங்குதல்



Awareness through auto campaign during Deepavali by O/o DEE, Chennai
சென்னை மாவட்ட சுற்றுச்சூழல் பொறியாளர் அலுவலகத்தில் ஆட்டோ மூலம் தீபாவளி விழிப்புணர்வு பிரச்சாரம் துவக்கி வைத்தல்.



Pollution free Deepavali – Awareness in schools
மாசில்லா தீபாவளி – பள்ளிகளில் விழிப்புணர்வு பிரச்சாரம்



Plastic pollution free Tamil Nadu – Awareness campaign
பிளாஸ்டிக் மாசில்லா தமிழ்நாடு – விழிப்புணர்வு பிரச்சாரம்



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பிளாஸ்டிக் மாசில்லா தமிழ்நாடு – விழிப்புணர்வு பிரச்சாரம்



Ozone Day Celebrations in the O/o. DEE TNPCB, Sivagangai
சிவகங்கை மாவட்ட சுற்றுச்சூழல் பொறியாளர் அலுவலகத்தில் உலக ஒசோன் தினப் பிரச்சாரம்



Agitated Thin Film Dryer (ATFD) installed for salt recovery in dyeing units
சாயப்பட்டறைகளின் உப்பினை பிரித்தெடுக்கும் உளர்த்தி



Online water quality monitoring system installed in River Cauvery
காவிரி ஆற்றில் நிறுவப்பட்ட நீர் தர கண்காணிப்பு நிலையம்



Tamil Nadu Pollution Control Board's Stall in Island Grounds
தீவத்திடலில் அமைக்கப்பட்டிருந்த தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் அரங்கம்



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Display of eco friendly natural products to be used as a substitute for one time use and throw plastics
ஒருமுறை பயன்படுத்தப்பட்டு தூக்கி எறியப்படும் நெகிழிப் பொருட்களுக்கு மாற்றான இயற்கை பொருட்களின் காட்சியம்



Display of items in the stall provided by Tamil Nadu Pollution Control Board in the exhibition
தமிழ்நாடு மாசு கட்டுப்பாடு வாரிய அரங்கத்தின் அமைக்கப்பட்டிருந்த பொருட்காட்சியகம்



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தமிழ்நாடு மாசு கட்டுப்பாடு வாரிய அரங்கத்தின் அமைக்கப்பட்டிருந்த பொருட்காட்சியகம்



Exhibition on ban on one time use and throw plastic items in Theni from 06.01.2019 to 10.02.2019

தேனி அரசுப்பொருட்காட்சியில் 06.01.2019 முதல் 10.02.2019 வரை தடை செய்யப்பட்ட நெகிழி பொருட்களுக்கு மாற்றுப்பொருட்கள் கொண்ட அரங்கம் அமைக்கப்பட்டது. இதனை சுமார் 2500 நபர்கள் பார்வையிட்டனர்.



பிளாஸ்டிக் மாசில்லா தமிழ்நாடு

மாண்புமிகு தமிழக முதல்வர் அவர்களின் சீரிய முயற்சியால் 110 விதியின் கீழ் 01.01.2019 முதல் ஒருமுறை பயன்படுத்தி தூக்கி எறியும் பிளாஸ்டிக் பொருட்களுக்கு தடை விதிக்கப்பட்டது. நமது சுற்றுச்சூழலை காப்பது நம்கடமை என்ற உணர்வோடு தடைசெய்யப்பட்ட பிளாஸ்டிக் பொருட்களை தவிர்த்து மாற்றுப் பொருட்களை பயன்படுத்துமாறு தமிழக அரசு, மக்களை அன்போடு கேட்டுக்கொள்கிறது.

தடை X

மாற்று ✓

எங்கு பயன்படுத்தலாம்

	உணவுப்பொருட்களைகட்ட உபயோகித்தபின்மேல் நெகிழித்தால் உறை		வாழை இலைகள், தாமரை இலைகள், அலுமினிய தாள்	★ தங்கும் விடுதிகள் ★ உணவகங்கள் ★ சாலைபேர உணவகங்கள்
	உணவு அருந்தும் மேஜையின் மீது விரிக்கப்படும் பிளாஸ்டிக் / பிளாஸ்டிக் பூசப்பட்ட தாள்		காகித கட்டு	★ கல்யாண மண்டபங்கள் ★ விழா நிகழ்ச்சிகள்
	தெர்மக்கோல் தட்டுகள்		பாக்குமர இலை, உலோக தட்டு, பீங்கான் தட்டு	★ உணவகங்கள் ★ கூட்ட அரங்கங்கள் ★ விழா நிகழ்ச்சிகள்
	பிளாஸ்டிக் பூசப்பட்ட காகித தட்டுகள்		பாக்குமர இலை, சில்வர் தட்டு, பீங்கான் தட்டு	★ பெருங்கூட்டங்கள் ★ கூட்ட அரங்கங்கள் ★ விழா நிகழ்ச்சிகள் ★ பேக்கரிகள் ★ உணவகங்கள் ★ Carவில்கள்
	பிளாஸ்டிக் பூசப்பட்ட காகித குவளைகள்		கண்ணாடி, உலோகம், மண், மற்றும் பீங்கான் குவளைகள்	★ விழா நிகழ்ச்சிகள் ★ பழச்சாறு கடைகள் ★ காரி & தேளிர் கடைகள்
	பிளாஸ்டிக் பூசப்பட்ட தேநீர் குவளைகள்		கண்ணாடி, உலோகம், மற்றும் மண் குவளைகள்	★ விழா நிகழ்ச்சிகள் ★ கூட்ட அரங்கங்கள் ★ பழச்சாறு கடைகள் ★ காரி & தேளிர் கடைகள்
	பிளாஸ்டிக் குவளைகள்		கண்ணாடி, உலோகம், மண், பீங்கான் குவளைகள்	★ பழச்சாறு கடைகள் ★ விழா நிகழ்ச்சிகள் ★ காரி & தேளிர் கடைகள் ★ மது அருந்துமிடம் ★ கூட்ட அரங்கங்கள்
	தெர்மக்கோல் குவளைகள்		கண்ணாடி, உலோகம், மண், மற்றும் பீங்கான் குவளைகள்	★ பழச்சாறு கடைகள் ★ கூட்ட அரங்கங்கள் ★ விழா நிகழ்ச்சிகள் ★ சிற்றுண்டிகள்
	நீர் நிரப்ப பயன்படும் பைகள், பொட்டலங்கள்		கண்ணாடி பாட்டில்கள், உலோக கொள்கலன், மண்பாண்டங்கள்	★ பொதுஇடங்கள் ★ சிற்றுண்டிகள் ★ கூட்ட அரங்கங்கள் ★ மது அருந்துமிடம்
	பிளாஸ்டிக் உறிஞ்சு குழாய்கள்		காகித, மர உறிஞ்சு குழாய்கள்	★ பழச்சாறு கடைகள் ★ இளநீர் கடைகள் ★ உணவு மன்றங்கள் ★ மது அருந்துமிடம்
	பிளாஸ்டிக் பைகள் (எந்த காலிலும், எந்த தரமளவு இடுப்பிறும்)		துணி / காகிதம் / சணல் பைகள்	★ பூ / மரக் கடைகள் ★ பழக்கடைகள் ★ சாப்பாடு கடைகள் ★ விடுபனை வளாகங்கள் ★ துப்பர் மரக்கடைகள் ★ துணிக்கடைகள் ★ மலிவக கடைகள்
	பிளாஸ்டிக் பூசப்பட்ட காகித பைகள்		துணி / காகிதம் / சணல் பைகள்	★ துணிக்கடைகள் ★ பெருங்கடைகள் ★ விடுபனை வளாகங்கள் ★ கைபேசி கடைகள் ★ கடிதகர் கடைகள்
	பிளாஸ்டிக் கொடிகள்		காகித / துணி கொடிகள்	★ தேசிய விழாக்கள் ★ அரசியல் கூட்டங்கள்
	தெய்வாத பிளாஸ்டிக் தூக்கு பைகள்		துணி / காகிதம் / சணல் பைகள்	★ துப்பர் மரக்கடைகள் ★ அம்சுலம்பைகள் ★ பூ / மரக் கடைகள் ★ பழம் / சாப்பாடு கடைகள் ★ துணிக்கடைகள் ★ மருத்துக்கடைகள் ★ விருதியில் துருக்கும் சணல் பைகள்

பிளாஸ்டிக் மாசில்லா தமிழகத்தை உருவாக்குவோம்



தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம்

