4STATUS REPORT ON THE COMPLIANCE BY THE STATE OF TAMILNADU WITH THE DIRECTIONS OF THE HON'BLE NATIONAL GREEN TRIBUNAL PRINCIPAL BENCH, NEW DELHI

IN

ORIGINAL APPLICATION NO. 606 / 2018

&

CONNECTED MATTERS

Submitted by

Chief Secretary, State of Tamil Nadu

September - 2023

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Introduction

Tamil Nadu is a fast growing and the most urbanised State in India. The link between economic development and urbanisation is well established. According to the 2011 Census, Tamil Nadu ranks third in the level of urbanisation (48.45%) in the country among the larger States. The urban population of Tamil Nadu is 34.95 million (Census of India, 2011) out of a total state population of 72.14 million and constitutes 48.45% of the population. While the percentage of urban population in the country increased from 10.85% to 31.16% during 1901-2011, Tamil Nadu registered a much higher percentage increase i.e., from 14.15% to 48.45% during the above period. Extended areas of Urban Agglomerations (UAs) in Tamil Nadu have also been witnessing rapid growth, with nearly 58% of the urban population living in the top 25 UAs.

In Tamil Nadu, Municipal Administration and Water Supply Department has the administrative control over Greater Chennai Corporation, Directorate of Municipal Administration and Commissionerate of Town Panchayat. The Commissioner of Greater Chennai Corporation administers the Greater Chennai Corporation with a population of 6867184. Based on the announcement made by the Hon'ble Minister for Municipal Administration, GoTN on the floor of the Legislative Assembly during the demand for grant of this department for the year 2021-2022, some of the Special Grade Municipality and the adjoining urbanised Local Bodies has been merged and upgraded as Corporations and some of the Town panchayats are upgraded as Municipalities. Now the Directorate of Municipal Administration manages 20 Corporations and 138 Municipalities with a population of 1,87,27,049. Similarly 490 Town Panchayat with a Population of 7655586 are managed by the Director of Town Panchayats.

Administration Division and Urban population Details of State of Tamil Nadu

Total Population in Tamil Nadu	Urban Population			Total Urban Population	Percentage
	Corporations (21)	Municipalities (138 ULBs)	Town Panchayats (490 TPs)		
80885600	17270010	8324223	7655586	35471229	48.45%

Compliance status of thematic areas as listed in the Hon'ble NGT order dated 12.09.2019 and 07.01.2020 in O.A.No.606 of 2018

Thematic Area: 1. Compliance of Solid Waste Management Rules, 2016 including Legacy Waste

SWM Rule 12	Duties of District Magistrate or District Collector or Deputy Commissioner to review performance of local bodies			
Current Status		**Desirable Level**	**Gap**	**Proposal for attending gap**
The District Collectors are conducting regular meetings on action taken report with respect to Compliance of Solid Waste Management Rules 2016. The Chief Secretary to the Government of Tamil Nadu has also conducted a meeting through video conference on regular basis to review the action taken by District Collectors with respect to Compliance of Solid Waste Management Rules 2016.		-	-	**Complied**
SWM Rules 15(a), (e), (ze), (f), (zf), (y), (z) & 16	Notification of Solid Waste Management Policy and Strategy Building Bye law enforcement Frame Bye Laws for Rules, user fee for waste generators, Levy of fines etc. Authorization of Pollution Control Board Duties of State Pollution Control Board or Committee			

Current Compliance Status	Desirable Level	Gap	Proposal for attending gap
• State Policy on Solid Waste Management notified on 24.08.18. • Provision made in section 35 (17) of Tamil Nadu Combined Development & Building Rules 2019. • All ULBs framed & notified the Bye law with provisions for user fee & spot fines • ULB wise Solid Waste Management policy and Action plan prepared for 219 ULBs. Gazette Notification has been done for all the ULBs. • TNPCB has issued authorization under SWM Rules 2016 to all 219 ULBs	Achieved	Nil	Nil

SWM Rules 15 (c), (d), (h), (i), (t), (v), (zd)	Inclusion of Organisation of Waste pickers and informal Facilitate SHG Formation, Provide ID Cards & Integrate in SWM Material Recovery Facilities to be established Domestic hazardous wastes to be collected and disposed safely Ensuring personal safety of waste handlers Self Help Group Activities

Current Compliance status	Desirable Level	Gap	Proposal for attending gap
• Waste pickers operating organizations have been integrated into the SWM system by engaging them through outsourcing agencies. • Day to day functioning of MCCs entrusted mostly with SHGs. • ID cards issued and biometric attendance maintained. • Dry waste is collected on a designated day of the week (every Wednesday) & transported to Resource Recovery Centres (RRCs/MRFs) • Workers are educated to collect the waste in a segregated manner. • Waste generators are encouraged to deposit the domestic Hazardous waste directly at MRFs or RRCs • Domestic hazardous waste such as Napkins, Diapers and Paramedical wastes collected separately on a daily basis and are being incinerated in the MCCs. • Citizens are encouraged to hand over domestic hazardous waste such as Paint drums, Thermometers, expired medicines, Tube lights separately on a weekly basis. The waste is transported to the Domestic hazardous waste deposition centre/MRFs and periodically disposed to the facilitator authorized by TNPCB. • Safety equipments and uniform provided to sanitary workers. • Workers are encouraged to use protection equipments during their routine collection works and processing activities	Achieved	Nil	Complied

SWM Rules 15 (b), (v), (r), (m), (p), (q), (u)	Door to Door Collection & Segregation Preference to Construct, Operate & Maintain Solid Waste Processing Facilities Setting up of Bio Methanation Plants Onsite Composting Centre in Parks and gardens Transportation of non-biodegradable waste Material Recovery Facilities to be established		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
Door to Door collection - 98%	**100 %**	**2%**	The Massive drive – **"Peoples movement for clean cities"** is being conducted in all ULBs in every 2nd and 4th Saturday to make cities clean and to behavioral change among the peoples. Through IEC awareness campaign, 100% D2D collection will be achieved before 31.12.2023.
Source Segregation - 85%	**100 %**	**15 %**	

Processing facilities for wet waste Total Waste Generation in 649 ULBs is 15,240 TPD ✓ Total wet waste generation is 8,196 TPD (54%) ✓ Waste to Compost Processing facilities (Micro Compost Centres) ✓ 1,170 MCC sanctioned to process 4,260 TPD of wet waste in 21 Corporations and 138 Municipalities and 39 Town panchayats. So far, 1033 MCCs with handling capacity of 3750 TPD have been established. ✓ In GCC, 2 Bio CNG plant is functioning to process 200 TPD. 4 Garden waste & tender coconut shells with processing plant of 320 TPD and 2 Windrow composting centers are established with processing capacity of 100 TPD. Service providers are processing at a capacity of 250TPD at their source. ✓ 907 OCCs are established in Corporations & Municipalities with a processing capacity of 350 TPD as waste to compost. ✓ 107 Biomethanation plants are established to process 259 TPD of Wet Waste. 518 Windrows and 27 Vermi Composting plants are functioning with capacity of 1501 TPD. ✓ The Overall Processing percentage of wet waste is 82%.(6730 TPD)	**100 %**	**18%**	✓ Construction of 5 nos of Bio-CNG plant of total design capacity 500 TPD (100 TPD each) are in progress. ✓ The construction activities of processing facilities are being reviewed and probable date of completion of all these works is 31.12.2023. ✓ Further 2 nos of Bio-CNG processing plant with capacity of 500 TPD capacity each is proposed to handle the gap. ✓ Also 2 nos of composting plants of 800 TPD at Kodungaiyur and 500 TPD at Perungudi is proposed to handle the further requirement. ✓ 215 Windrows composting sanctioned with capacity of 411 TPD is under construction. ✓ 39 MCCs with 209 TPD TPD is under construction.

✓ From June 2016 to Sep 2023, 5,62,310 MT of compost is generated in 649 ULBs are sold at marginal cost /given at free of cost to farmers/is used in the parks & gardens maintained by ULBs. ✓ 1,42,220 Tonnes of non-saleable, non-recyclable wastes disposed up to 30.09.2023 ✓ 5,54,974 MT of recyclable waste were sold and Rs.143.50 Crore distributed to sanitary workers for the period from August 2017 to 30.09.2023 ✓ To dispose the dry waste generated in ULBs, 540 nos of Material Recovery Facilities/Resource recovery centres with capacity of 2021 TPD has been constructed and put in use. The ULBs having land constraints have established the RRCs in the MCCs. ✓ 1,42,220 Tonnes Non-recyclable wastes generated are sent to cement plants/ sugar mills/ power plants for usage as fuel. ✓ In GCC, 1 nos of scientific Incinerator of capacity 50TPD, 1 nos of scientific Incinerator of capacity 10TPD is functioning. 1 no of mobile incinerator of capacity 5 TPD and Off take of plastics waste for co-processing to cement factories at a capacity of 300 TPD			**GCC:** ✓ 1 no of 20 TPD Pyrolysis plant work is completed and awaiting for CTO from TNPCB. ✓ The Waste to Energy plant of capacity 1500 MT and 2 nos of Automated MRF of capacity 2400 TPD each is proposed under SBM 2.0. for which DFR is under preparation through the consultant. **DMA:** ✓ Out of 110 Material Recovery Facilities sanctioned, under SBM 2.0, 33 works completed, 77 works are in various stages of construction. ✓ 15 nos. of incinerators in 30 ULBs are awaiting Consent to Establish (CTE) and Consent to Operate (CTO) from TNPCB. **DTP:** Under SBM 2.0, 313 Material Recovery Facilities with capacity of 402 TPD has been sanctioned and 101 works are completed and 186 works are under construction.

SWM Rules 15 (w), (zh), (zi)	Scientific Land fill Desired Objective of Zero Waste Concept

Current Status	Desirable Level	Gap	Proposal for attending gap
✓ All the wet waste are processed and converted as Compost and Bio Gas. Hence there may not be end residue to take to land fill. At present 82% of wet wastes are scientifically disposed without using land fill. The saleable dry wastes generated are disposed through local vendors and non saleable wastes are disposed to cement industries periodically. The non saleable combustible waste are being stored in RRC ✓ Marching towards **"Zero Residue Concept"**.	100%	18 %	✓ All the Wet waste are being converted into bio Manure without any residue. ✓ All the recycled dry waste are being disposed to recycled vendors ✓ All the non recyclable dry waste having combustible in natures are being sent to cement industries to use as a fuel. ✓ Apart from the above, initiation taken to construct the MRF for balance quantity of dry waste disposal.

SWM Rules 15 (zi), (zk)	**Removal of Legacy waste** Bio Mining, Bio Remediation or Bio capping of legacy waste in dumpsite

Current Status	Desirable Level	Gap	Proposal for attending gap
✓ Reclamation of dump yard filled with legacy waste through bio mining process is proposed. The total legacy waste in the 291 locations is 215 lakh cu.m and in 361 ULBs there is no legacy waste dumped. ✓ Bio Mining work have been taken up in 291 locations (19 Corporations, 104 Municipalities and 131 Town Panchayats) to remove the 215 lakhs Cu.m of Legacy waste. After completion of the biomining works, about 1500 acres of land will be reclaimed. ✓ Bio Mining works has been completed in 139 locations and cleared 62 lakh Cu.m of legacy waste and 779 acres of land has been reclaimed. ✓ In 152 locations, works are in various stages. ✓ Centre for Environmental Studies, Guindy Campus, Anna University, Chennai has been engaged as Third Party Inspection Agency for technical guidance in Bio-mining works.	100%	(Completed 29%) Fund Sanctioned & under progress – 71%	✓ In 152 Locations remediation works are in progress.

SWM Rules 15 (x)	Budgetary Provision		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
✓ Adequate fund provision by SBM through State Government and GoI. • GoTN & GoI - Rs. 1057.36 Cr ✓ Operation and Maintenance by the ULBs from General Fund	-	-	-

SWM Rules 15 (za), (zb)	Submission of Annual Report by the local bodies		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
✓ Annual Report for the year 2022-23 as per Form IV has been submitted to TNPCB in the month of August 2023. ✓ Will be followed in subsequent years also.	-	-	**Submitted**

SWM Rules 15(zc), 15(l), 15(g), 15(zg)	**Information, Education, Communication** **Special Task Force**		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
✓ Periodical and regular training programmes organized. ✓ Periodical RWA meetings are conducted to enlighten the waste generators. ✓ 2846 Animators, 230 Supervisors & 11 Coordinators are			

engaged exclusively for IEC under SBM and are working from October 2017 to till date. ✓ Vide G.O (Ms) No.58, Municipal Administration and Water Supply (MAIV) Department. dated 20.4.2019 Government has issued order for the formulation of Special Task Force in all the Districts for SWM - IEC activities. ✓ People's Movement for Clean Cities' has been launched by the Honourable Chief Minister on 03.06.2022. The Fundamental objective of the scheme is to sensitize every citizen about solid waste management, especially source segregation of waste and to bring behavioral change. The campaign revolves around the theme "My Waste, My Responsibility". The campaign is carried out on every 2nd and 4th Saturdays of the month in all urban local bodies. On every third Wednesday, awareness campaigns are conducted in Schools and Colleges about solid waste management and sanitation. ✓ Special Task Force have been constituted in all the Districts. District Collectors are conducting the Special Task Force meetings to review the SWM activities in ULBs and MoM are issued.	Nil	Nil	Complied

SWM Rules 16(1)(a),(5),(6)	Enforcement of Rules in the State through local bodies Directions to local bodies for safe handling and disposal of domestic hazardous wastes Regulate inter-State movement of waste

Current Status	Desirable Level	Gap	Proposal for attending gap
• DO letters dated 25.04.2016 & 14.06.2016 and letters dated 04.10.2016, 26.11.2016 & 19.01.2017 addressed to Commissionerate of Municipal Administration, Directorate of Town Panchayat, RDPR Dept to comply with the provisions of the Solid Waste Management Rules, 2016. • Meeting convened on 11.01.2017 with the officials of Corporation of Chennai, CMA & DTP to comply with the provisions of the Solid Waste Management Rules, 2016 • One day Sensitization Program on "Implementation of Solid Waste Management Rules, 2016" conducted by the TNPCB on 30th January 2017. • One day training program on salient features of Solid Waste Management Rules conducted for the District Co- coordinators of Eco-Club, National Green Corps (NGC) & Scouts on 20.09.2019. • Letter dated. 06.01.2020 addressed to the Additional Chief Secretary to Government, Municipal Administration & Water Supply Department to direct the respective departments to allocate/earmark adequate land for setting up of processing and disposal facilities for solid waste. • Training on Solid Waste Management including legacy waste provided to all Executive Officers of Town Panchayat on 30.01.2020 & 31.01.2020 **Issue of Directions and Environmental Compensations:** • As per the orders of the Hon'ble NGT (PB) in OA No. 606 of 2018 dated 02.07.2020, TNPCB assessed Interim Environmental Compensation and issued Directions under section 5 of Environment (Protection) Act, 1986 with respect to remitting Interim Environmental Compensation to the following Local Bodies namely, Chennai, Coimbatore, Madurai, Trichy,	As indicated in SWM Rule 2016	Nil	Complied

Salem, Erode, Thoothukudi, Vellore, Tirunelveli, Nagercoil, Hosur, Thanjavur, Avadi, Gobichettipalayam Municipality, Mamallapuram Town Panchayat, Nandhivaram-Guduvancheri Town Panchayat, Kaattankolathur Panchayat Union, Medavakkam Village Panchayat, Chitlapakkam Town Panchayat, Kayalpattinam Municipality, Kundrathur Panchayat Union, Vaniyambadi Municipality (06.03.2023), Irungatttukottai Village Panchayat (14.06.2023), Keevalur Village Panchayat(14.06.22023), Thandalam Village Panchayat(14.06.2023), Mevalurkuppam Village Panchayat(14.06.2023) and Katrambakkam Village Panchayat(14.06.2023). • Show Cause Notice issued to Pallavaram Municipality, Jambai Town Panchayat and Nandivaram Guduvanchery Town Panchayat, Sithalapakkam Village Panchayat, Minjur Town Panchayat, Kundrathur Town Panchayat, Veppanthattai Panchayat Union, Madambakkam Town Panchayat, Pallipalayam municipality, Padur Village Panchayat, Thalambur Village Panchayat, Villivakkam Panchayat Union, Hosur Municipal Corporation, Madurai East Panchayat Union, Kovilambakkam Village Panchayat of St.Thomas Mount Panchayat Union, Kancheepuram Municipality, Perumbakkam Village Panchayat of St.Thomas Mount Panchayat Union, Thiruneermalai Town Panchayat, Mamallapuram town Panchayat, Moovarasampattu Village Panchayat of St.Thomas Mount Panchayat Union, Vandalur Village Panchayat of Kattankulathur Panchayat Union, Karanai Pudhucheri Village Panchayat of Kattankulathur Panchayat Union, Gobichettipalayam Municipality, Tharamangalam Municipality, Vaniyambadi Municipality, Pozhichalur Village Panchayat, Othakadai Village Panchayat (07.03.2023) and Salem Corporation(13.03.2023) under section 5 of E(P) Act, 1986 as to why the Board shall not recover Interim Environmental Compensation for the non-compliance of SWM Rules, 2016. • Directions under section 5 of Environment (Protection) Act, 1986 issued to Pallipalayam & Vaniyambadi Municipality, Medavakkam Village Panchayat, Minjur Town Panchayat, Kundrathur Town Panchayat, Nandivaram Guduvancheri Town Panchayat, Madambakkam Town Panchayat, Thiruneermalai Town Panchayat, Mamallapuram town panchayat,			

Moovarasampattu Village Panchayat of St.Thomas Mount Panchayat Union,Greater Chennai Corporation, Perumbakkam Village Panchayat of St.Thomas Mount Panchayat Union, Gobichettipalayam Municipality, Tharamangalam Municipality,), Madurai West Panchayat Union, Pozhichalur Town Panchayat ,Othakadai Town Panchayat (07.03.2023) Salem Corporation(13.03.2023), Samayanallur (and Usilampatti Municipality (24.03.2023) for non-compliance of SWM Rules). • Directions issued to the Line Departments under Section 5 of the Environment (Protection) Act, 1986 to carry out bio mining and bio-remediation of dumpsites in compliance with the provisions of SWM Rules, 2016 & CPCB Guidelines. • Show Cause Notice has been issued to the Greater Chennai Corporation, for the non compliance SWM Rules, 2016 as to why prosecution should not be launched by filing complaint as per the powers conferred under Environment (Protection) Act, 1986. • Criminal case has been filed against the Executive Officer, Mamallapuram Town Panchayat for not complying with the Solid Waste Management Rules, 2016. **Regulating inter-State movement of waste:** TNPCB has taken following initiatives for curtailing dumping of SW across the borders of the State: • Letter dated 03.01.2020, 24.12.2021 & 27.08.2022 has been addressed to the Transport Department, Police Department and the Commercial Taxes Department to have strict vigil in the check post located at the Border of Tamilnadu and Kerala and to ensure no vehicle with the solid waste is allowed into the state of Tamilnadu. A committee has been formed with District Collector as Chairman along with Revenue, Police, Commercial Taxes, Transport, Local Bodies and TNPCB officials in the Coimbatore & Kanyakumari Districts for continuous monitoring of illegal transportation of the waste from Kerala.			

SWM Rules 16(b),(4), 19(4)	Monitor environmental standards (Air Quality Monitoring, Water Quality Monitoring (ground water) as per Schedule II of SWM Rules, 2016)		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
• TNPCB conducted Ground Water Quality monitoring at the vicinity of solid waste dumpsites pertaining to Corporations namely, Chennai, Madurai, Coimbatore, Trichy, Tirunelveli, Thanjavur, Dindigul, Avadi, Tiruppur, Kumbakonam, Nagercoil, Sivakasi, Thoothukudi, Hosur, Salem, and 42 Municipalities. • TNPCB conducted Ambient Air Quality monitoring at the vicinity of solid waste dumpsites pertaining to namely, Chennai, Coimbatore, Dindigul Madurai, Trichy, Thoothukudi, Erode and Thanjavur. • Continuous Ambient Air Quality Monitoring stations installed in the vicinity of Kodungaiyur and Perungudi dumpsites.	To carry out Ground Water Quality Monitoring at dumpsites of Corporations and Municipalities	Nil	Achieved

SWM Rules 16 (c), (d), (e), (f), (g), (h), (2), 19 (3) 24 (3)	Issue of Authorisation to local bodies generating solid waste greater than 5 tons/day Submission of Annual Report		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
• Tamil Nadu Pollution Control Board has issued authorization to 226 Local Bodies and Local bodies which do not applied for authorization and not having valid authorization are directed to apply for authorization.	To issue Authorization to all urban local bodies generating solid waste greater than 5 tons/day.	Nil	Achieved
• TNPCB has submitted Annual Report to the CPCB for the year 2022- 2023 on 18th August 2023.	To submit Annual Report to the CPCB before 31st July every year.	Nil	Nil.

SWM Rules 20 (a), (b), (c), (d), (e), (f)	**Solid Waste Management in hilly areas;** Avoiding Construction of Landfills on Hills Awareness on non-littering Awareness on Provisions of Bye-Law through Hoardings Levy of SWM Charge from Tourists Identification of land for SWM Processing facilities in hilly areas

Current Status	Desirable Level	Gap	Proposal for attending gap
✓ All the ULBs disposing waste with a concept of Zero Residue and the Landfills are not established so far. ✓ Hoardings on awareness of non-littering are displayed in all the Hilly areas which are under ULBs jurisdiction. ✓ Bye laws have been framed and notified with provisions for user fee & spot fines from Tourists. ✓ Decentralized Micro Composting Centre (MCC) established in hilly areas of Nilgiris, Dindigul and Theni Districts ✓ Nilgiris District (4 ULBs) - 9 MCC with a handling capacity of 29 TPD and 14 Onsite Composting Centre (OCCs) with a handling	100%	18%	Alternative methods to process wet waste like Thermophelic biomethanation plant is proposed in Kodaikanal Municipality under SBM 2.0 to suit the hilly climate conditions. Meanwhile, currently Windrow Composting / MCC is being practiced to process the wet waste.

capacity of 5 TPD and windrows composting to handle 10 TPD have been established. ✓ 11 TPs in Nilgiris District are handling their waste (44.33 TPD) through windrow composting. ✓ In Kodaikanal Municipality, 1 MCCs with a handling capacity of 2 TPD and 4 Onsite Composting Centre (OCCs) with a handling capacity of 2 TPD have been established. ✓ 12 TPs of Dindigul, Theni and Tirunelveli districts process their waste (46.155 TPD) through Windrow composting. ✓ Recyclables are sold to recyclers and Non-recyclables are sent to Ultra tech & ACC cements.			

SWM Rules 22	Time frame for implementation

S.No.	**Activity**	**Time limit from the date of Notification of Rules**	**Present status of compliance by the State of Tamilnadu**
1	Identification of suitable sites for setting up solid waste processing facilities	1 year	Sites are Identified. All the ULBs in Tamilnadu are processing the wet waste on Decentralized method by establishing Micro level composting centres by dividing the Town into No.of Zonation each comprising 2 to 3 Wards without exceeding garbage generation quantity more than five TPD. Material Recovery

S.No.	Activity	Time limit from the date of Notification of Rules	Present status of compliance by the State of Tamilnadu
			Facility/Resource Recovery Facility also proposed in 4 to 10 Locations covering maximum of 10 wards for each locations.
2	Identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or standalone sanitary landfill facilities by all local authorities having a population of 0.5 million or more.	1 year	All the ULBs are in the Way Forward of Processing and Disposing the Waste collected on Day to Day basis with Zero Residue Concept.
3	Procurement of suitable sites for setting up solid	2 years	Bio-degradables are processed in Decentralized Micro Compost Centres. Non-recyclable wastes generated are sent to cement plants/ sugar mills/ power plants for

S.No.	Activity	Time limit from the date of Notification of Rules	Present status of compliance by the State of Tamilnadu
	waste processing facility and sanitary landfill facilities.		usage as fuel. **GCC:** ✓ 1 no of 20 TPD Pyrolysis plant work is completed and awaiting for CTO from TNPCB. ✓ The Waste to Energy plant of capacity 1500 MT and 2 nos of Automated MRF of capacity 2400 TPD is proposed under SBM 2.0. for which DFR is under preparation through the consultant. **DMA:** ✓ Out of 108 Material Recovery Facilities sanctioned, under SBM 2.0 33 works completed, 77 works are in various stages of construction. ✓ 15 nos. of incinerators in 30 ULBs are awaiting Consent to Establish (CTE) and Consent to Operate (CTO) from TNPCB. **CTP:** Under SBM 2.0, 313 Material Recovery Facilities with capacity of 402 TPD has been sanctioned and 101 works are completed and 186 works are under construction.

4	Enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source,	2 years	Waste Generators are properly educated and communicated to practice the segregation of waste by conducting various awareness program and enforcement initiated through notification of Bye-laws. So far 85% segregation has been achieved.
5	Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.	2 years	98% door to door collection achieved. The gap is expected to be completed by 31.12.2023.
6	Ensure separate storage, collection and transportation of construction and demolition wastes	2 years	All ULBs have earmarked the C&D waste deposition facility. Currently C& D Waste is being used for laying base course for formation of roads and filling up of low lying areas
7	Setting up solid waste processing facilities by	2 years	**Processing facilities for wet waste** Total Waste Generation in 649 ULBs is 15,240 TPD

	all local bodies having 100000 or more population		✓ Total wet waste generation is 8,196 TPD (54%) ✓ Waste to Compost Processing facilities (Micro Compost Centres) ✓ 1,170 MCC sanctioned to process 4,260 TPD of wet waste in 21 Corporations and 138 Municipalities and 39 Town panchayats. So far, 1033 MCCs with handling capacity of 3750 TPD have been established. ✓ In GCC, 2 Bio CNG plant is functioning to process 200 TPD. 4 Garden waste & tender coconut shells with processing plant of 320 TPD and 2 Windrow composting centers are established with processing capacity of 100 TPD. Service providers are processing at a capacity of 250TPD at their source. ✓ 907 OCCs are established in Corporations & Municipalities with a processing capacity of 350 TPD as waste to compost. ✓ 107 Biomethanation plants are established to process 259 TPD of Wet Waste. 518 Windrows and 27 Vermi Composting plants are functioning with capacity of 1501 TPD. ✓ The Overall Processing percentage of wet waste is 82%.(6730 TPD)
8	Setting up solid waste processing facilities by local bodies and census towns below 100000 populations.	3 years	
9	Setting up common or standalone sanitary landfills by or for all local bodies having 0.5 million or more population for the	3 years	as serial no. 2 & 3 above

	disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules		
10	Setting up common or regional sanitary landfills by all local bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules	3 years	as serial no. 2 & 3 above
11	Bio-remediation or capping of old and abandoned dump sites	5 years	✓ Reclamation of dump yard filled with legacy waste through bio mining process is proposed. The total legacy waste in the 291 locations is 215 lakh cu.m and in 361 ULBs there is no legacy waste dumped. ✓ Bio Mining work have been taken up in 291 locations (19 Corporations, 104 Municipalities and 131 Town Panchayats) to remove the 215 lakhs Cu.m of Legacy waste. After completion of the biomining works, about 1500 acres of land will be reclaimed. ✓ Bio Mining works has been completed in 139 locations and cleared 62 lakh

			Cu.m of legacy waste and 779 acres of land has been reclaimed. ✓ In 152 locations, works are in various stages. ✓ Centre for Environmental Studies, Guindy Campus, Anna University, Chennai has been engaged as Third Party Inspection Agency for technical guidance in Bio-mining works.
12	Legal Frame Work		1. SWM Policy for the State as per clause 11 (a) of the SWM Rules has been Notified in 24th August 2018 by the Government. 2. Bye laws as per clause 15 (e) of SWM Rules 2016 for all ULB's have been Notified and in force.
13	Annual Report		TNPCB has submitted the Annual Report for the year 2022-23 to the Central Pollution Control Board

Thematic Area: 2. Compliance to Bio-medical Waste Rules

BWM Rule 4 (d)	Duties of Occupier of HCF Phase out use of chlorinated plastic bags		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
Health care Facilities are being supplied with Non-chlorinated plastic bags by the Common Biomedical Waste Treatment Facilities.	–	Nil	-

BWM Rule 4 (i)	Duties of Occupier of HCF Bar- Code System for bags		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
There are totally 14 CBMWTFs of which the following 2 namely (1).M/s. Society for Biomedical Waste Management, Nilgiris and (2). M/s. Neat & Clean Service Squad, Ramnad have been issued with closure direction and disconnection of power supply for non compliance of BMWM rules. Bar coding system is being implemented in the HCFs covered by the CBMTWFs in their jurisdiction.	Implementation of Bar coding by all the H CFs in co-ordination with the CBMWTFs.	To ensure that all the HCFs implement Bar coding system.	All the CBMWTFs have been issued with Directions under Section 5 of Environmental (Protection) Act, 1986 vide Proc. dated 27.12.2019 and addressed vide letter dated 21.05.2020 to implement Bar coding system in the HCFs attached with them. Further instructions have been issued to all the HCFs through the District Environmental Engineers to implement bar coded bags in the HCFs located in their jurisdiction. Also, TNPCB has issued and uploaded standing instructions to all the HCFs in the TNPCB website directing all the HCFs to comply with the rules including Bar coding system.

BWM Rule 4 (p)	Duties of Occupier of HCF Annual report on its web-site		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
All the HCFs have been instructed to upload the Annual report in their website.	Uploading of Annual Report in Form – IV by the bedded HCFs in their website as per the Biomedical Waste Management Rules, 2016 as amended in 2019.	To ensure that all the bedded HCFs upload the Annual report in their website as per BMWM Rules, 2016 as amended in 2019.	Conditions have been imposed in the Consent orders issued to the HCFs to upload the Annual report in their website. Further instructions have been issued to all the HCFs through the District Environmental Engineer. Also, TNPCB uploaded standing instructions to all the HCFs in the TNPCB website directing all the HCFs to comply with the rules including uploading of Annual Report by the HCFs.

BWM Rule 4 (t)	Duties of Occupier of HCF Existing incinerators to achieve retention time in secondary chamber		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
In Tamil Nadu, no captive biomedical waste treatment and disposal facilities are available. The entire biomedical waste generated from the HCFs is disposed through 11 Common Biomedical Waste Treatment and Disposal Facilities located in Tamil Nadu. Out of 14 CBMWTFs, 12 facilities have installed with the incinerators and are achieving retention time in the secondary chamber. Remaining 2 facilities namely (1). M/s. Society for Biomedical Waste Management, Nilgiris. (2). M/s. Neat & Clean Service Squad, Ramnad and have been issued with closure direction and disconnection of power supply for non compliance of BMWM rules.	--	NIL	--

BWM Rule 5 (c)	Duties of Occupier of CBMWTFs Bar coding and global positioning system		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
Bar coding system and GPS Tracking system : There are totally 14 CBMWTFs of which the following 2 namely (1). M/s. Society for Biomedical Waste Management, Nilgiris (2). M/s. Neat & Clean Service Squad, Ramnad and have been issued with closure direction and disconnection of power supply for non compliance of BMWM rules. Bar coding system is being implementing in the HCFs covered by the CBMTWFs in their jurisdiction. All the vehicles of the CBMWTFs have been fitted with GPS Tracking system.	100 % Implementation of Bar coding by all the HCFs in co-ordination with the CBMWTFs.	To ensure that all the HCFs implement Bar coding system.	All the CBMWFs have been issued with Directions under Section 5 of Environmental (Protection) Act, 1986 vide Proc. dated 27.12.2019 and addressed vide letter dated 21.05.2020 to implement Bar coding system in the HCFs attached with them. Further instructions have been issued to all the HCFs through the District Environmental Engineers to implement bar coded bags in the HCFs located in their jurisdiction. Also, TNPCB uploaded standing instructions to all the HCFs in the TNPCB website directing all the HCFs to comply with the rules including Bar coding system.

BWM Rule 5 (l)	Duties of Occupier of CBMWTFs Display details of authorisation, treatment, annual report etc., on its web-site		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
The 11 CBMWTFs which are in operation are uploading the daily report on the waste collected and treated in their website. One CBMWTF has obtained CTO but yet to commence its operation. Remaining 2 facilities namely (1). M/s. Society for Biomedical Waste Management, Nilgiris (2). M/s. Neat & Clean Service Squad, Ramnad which are issued with closure direction are collecting the BMW generated in the HCF already covered by them and are handing over the BMW to nearby operating CBMWTF.	**achieved**	**Nil**	**Nil**

BWM Rule 5 (q)	Duties of Occupier of CBMWTFs Upgrade existing incinerators to achieve the standards for retention time in secondary chamber		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
Upgrade existing incinerators to achieve the standards for retention time in secondary chamber by 27th March, 2018.	All the CBMWTFs to achieve the standards for retention time in secondary chamber.	**Nil**	All the CBMWTFs are achieving the standards for retention time in secondary chamber
Out of 14 CBMWTFs, 12 CBMWTFs have incinerators and the remaining 2 CBMWTFs namely (1) M/s. Society for Biomedical Waste Management, Nilgiris & (2) M/s. Neat & Clean Service Squad, Ramnad, have only deep burial system. Hence, these two CBMWTFs have been issued with closure direction. 11 CBMWTFs which are in operation are achieving the standards for retention time in the secondary chamber. One CBMWTF has obtained CTO and yet to commence its operation.			

BMWM Rules	Duties of Occupier of CBMWTFs Online connectivity of CBMWTFs		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
Out of 14 CBMWTFs, 11 facilities have installed online monitoring system for the parameters primary chamber temperature, secondary chamber temperature, PM, NOx, HCl, CO, CO2 & O2. Remaining two facilities namely (1) M/s. Society for Biomedical Waste Management, Nilgiris and (2) M/s. Neat & Clean Service Squad, Ramnad have been issued with closure direction and disconnection of power supply for non compliance of BMWM rules. One CBMWTF has obtained CTO and yet to commence its operation.	–	--	**Achieved**

BMW Rule (Schedule III) 6 (i)	Duties of State Pollution Control Board Inventorization Issue of Authorisation		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
Tamil Nadu Pollution Control Board has inventoried 29119 Health Care Facilities (Private and Government hospitals) so far and issued with Authorisation under BMWM Rules, 2016 including one time Authorization for non-bedded HCFs like clinics, laboratories, research institutes, Veterinary hospitals, etc.,	-	-	-

BMW Rule (Schedule III) 6 (ii)	Duties of State Pollution Control Board Annual Report		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
As per Rule 13 (2), SPCB has to submit the Annual report to CPCB on or before the 31st Oct of every year. TNPCB has submitted Annual report to CPCB for the year 2022 vide TNPCB letter dated 31.07.2023.	-	-	-

BMW Rule (Schedule III) 6 (v)	Duties of State Pollution Control Board Action against health care facilities or common biomedical waste treatment facilities for violation Monitoring of compliance conditions of authorisation		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
Out of 14 Common Biomedical Waste Treatment and Disposal Facilities, 2 facilities namely, M/s Society for Biomedical Waste Management, Nilgris & M/s. Neat & Clean Service Squad, Ramnad have been issued with closure direction and disconnection of power supply for non-compliance of BMWM Rules. Further, 64 HCFs have been issued with closure direction and disconnection of power supply for operating the unit without consent under the Water (P & CP) Act 1974 and the Air (P & CP) Act 1981 as amended and Authorization under BMWM Rules 2016. Subsequently, out of the said 64 HCFs, 33 HCFs have been issued with revocation of closure direction and restoration of power supply, as the HCFs have complied with the conditions stipulated in closure directions. Earlier, Non-bedded HCFs (14 Nos.) have been issued with closure direction and disconnection of power supply for operating the unit without one-time authorization under BMWM Rules 2016. Subsequently, out of the said 14 HCFs, 11 HCFs have been issued with revocation of closure direction and restoration of power supply, as the HCFs	--	--	-

have complied with the conditions stipulated in closure directions. **Recently, one HCF M/s. R.K.Ortho Plus, Salem District was issued with Directions for closure and disconnection of power supply under Section 5 of E(P) Act, 1986 for non-compliance of Provisions of BMWM Rules, 2016.** Earlier, Directions were issued to 28 Nos. of HCFs including Government Hospitals for violation of consent order conditions and for operating without consent of the Board under the Water and the Air Acts. Also, 19 HCFs including Government Hospitals were levied with Environmental Compensation for non-compliance of Directions issued to the HCF. **Now, M/s. ACS Medical College and Hospital (Dr. M.G.R. University), Tiruvallur District has been issued with Directions under Section 33(A) of Water (P&CP) Act, 1974 and section 31(A) of Air (P&CP) Act, 1981 for operating without consent of the Board.** Show Cause Notice under Section 5 of E(P) Act, 1986 were issued to CBMWTFs namely, M/s. Aseptic Systems Bio Medical Waste Management Company, Tirunelveli, M/s. Ken Bio Links Pvt Ltd, Vellore, M/s. Ramky Energy and Environment Limited, Salem M/s. Ramky Energy and Environment Limited, Virudhunagar M/s. Teknotherm Industries, Coimbatore for non-compliance of BMWM Rules. Directions under section 5 of the Environment (Protection) Act, 1986 as amended were issued to 2 HCFs namely M/s. Thanjavur Medical College Hospital, Thanjavur District and M/s. VAIGAI LABORATORY, Madurai District for non-compliance of BMWM Rules, 2016. Show Cause Notice under Section 5 of E(P) Act, 1986 was issued to 1 HCF, M/s. Government Tiruvannamalai Medical College and Hospital, Tiruvannamalai District for non-compliance of BMWM Rules.			

Earlier, Directions under section 5 of the Environment (Protection) Act, 1986 as amended were issued to 2 CBMWTFs namely M/s. Teknotherm Industries, Coimbatore and M/s. Kovai Bio Waste Management, Coimbatore for non-compliance of BMWM Rules, 2016. **Now, Directions under section 5 of the Environment (Protection) Act, 1986 as amended has been issued to the CBMWTF M/s. Re Sustainability IWM Solutions Limited, Chengalpattu District for non-compliance of BMWM Rules, 2016.** Earlier, Show Cause Notice under Section 5 of E(P) Act, 1986 were issued to CBMWTF M/s. Ramky Energy and Environment Limited, Salem to remit Environmental Compensation. **Further, directions under Section 5 of E(P) Act, 1986 has been issued to the CBWTF M/s. Re-sustainability Health Care Solutions Limited, Virudhunagar District to remit the Environmental Compensation levied.** Directions under section 5 of E(P) Act, 1986 has been issued to the Directorate of Municipal Administration, the Greater Chennai Corporation & the Commissionerate of Town Panchayats, Urban Administrative Building Society w.r.t Domestic hazardous waste segregation and disposal. **Directions under Section 5 of E(P) Act, 1986 w.r.t Expired medicines segregation and disposal has been issued to the Directorate of Medical and Rural Health Services (DMRHS), Chennai.** **Recently, the Directorate of Medical and Rural Health Services (DMRHS), the Directorate of Medical Education (DME), the Directorate of Public Health and Preventive Medicine (DPH &PM), the Indian Medical Association (IMA), Tamil Nadu State Branch & the Directorate of Animal Husbandry & Veterinary Service has been addressed to ensure strict implementation of 100% bar-coding in all HCFs.**			

BMW Rule (Schedule III) 6 (vi)	Duties of State Pollution Control Board Undertake Inventory of Bio- Medical Waste		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
TNPCB has inventoried 29119 Health care Facilities generating biomedical waste, as per the Biomedical Waste Management Rules, 2016 through the District Environmental Engineers.	-	-	-

BMW Rule (Schedule III) 6 (viii)	Duties of State Pollution Control Board Third party audits of the common bio-medical waste treatment facilities		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
TNPCB is under the process of conducting Third Party Audit of the common bio-medical waste treatment facilities through reputed institutions/ organizations as per the BMWM Rules, 2016.	Undertake and support third party audits of the common bio-medical waste treatment facilities in their State.	--	TNPCB is in the process of conducting third party audit for 10 CBMWTFs through NABET consultants. TNPCB has issued work order to the two NABET consultants viz., M/s. Centre for Environment, Health & Safety, Annamalai University and M/s. Green Enviro Engineers Pvt Ltd, Plot No. – 316, Awadhpuri, Vikas Nagar, Near Sale tax office, Kanpur – 208024 to conduct third party audit for evaluating the performance of the CBMWTFs – 5 Nos. each. The NABET consultants have submitted the reports for all the 10 CBMWTFs. Analysis of the audit reports is under progress.

BMW Rule (Schedule III) 6 (x)	Duties of State Pollution Control Board Advisory Committee		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
The Health, Family & Welfare (H1) Department vide G.O.(Ms). No. 277 dated 29.11.2016 had constituted the State Level Advisory Committee under the chairmanship of Principal Secretary of Health & Family Welfare Department. First State Level Advisory Committee meeting was held on 10.05.2017 and Second State Level Advisory Committee meeting on 10.01.2018. Further, Third, Fourth, Fifth, Sixth, Seventh & Eighth State Level Advisory Committee meetings were held on 25.09.2018, 10.04.2019, 26.11.2019, 24.12.2020, 22.07.2021 & 22.12.2022. Also, the Health, Family & Welfare (H1) Department vide G.O. (Ms). No. 179 dated 06.07.2016 and G.O. (Ms) No. 192 Dated 19.05.2017 has issued orders to constitute the District Level Monitoring Committee under the chairmanship of respective District Collectors. In this regard, District Level Monitoring Committees have been formed in all the Districts and regular meetings are being held. Also, as per the orders of the Hon'ble NGT in O.A. No. 180 of 2021, a State Level Committee under the Chairmanship of The Principal Secretary to Government, Health & Family Welfare Department and District level Committees under the Chairmanship of the District Collectors were constituted vide G.O. (Rt) No. 597 dt.16/8/2022. In this regard, the First State Level Committee meeting was held on 27.12.2022. So far, Dharmapuri, Theni, Salem, Dindigul, Thiruvannamalai, Madurai, Vaniyambadi, Villupuram and	—	Nil	-

Kallakurichi, Ramanathapuram, Hosur, Erode, Thanjavur, Ariyalur & Perumbalur and Trichy have conducted the first District Level Committee meeting in their respective jurisdictions.			

BMW Rule (Schedule III) 6 (x)	**Duties of State Pollution Control Board** **List of Registered or Authorised (or give consent) Recyclers**		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
The list of the Registered/ consented Recyclers has been published in the TNPCB website.	—	NIL	Achieved

BMW Rule **Others**	**Duties of State Pollution Control Board** **Formation of District Planning Committee as per the Hon'ble NGT order dated 15.07.2019 in O.A. No.710-713/2017**		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
As per the Hon'ble NGT order dated 15.07.2019 in O.A. No.710-713/2017, District Committee has been formed and functioning in each District. Further, as per the Hon'ble NGT order dated 26.09.2019 in O.A.No.360 of 2018,CPCB has formulated model District Environmental plan (DEP) and the same was prepared by all the District Collectors of respective Districts. The DEPs of all the Districts were compiled and submitted to Director of Environment (DOE), Chennai for preparation of State Environmental Plan.	—	-	-

Thematic Area: 3. Compliance to Construction & Demolition Waste

SWM Rules 15 (s) & C&D WASTE RULES: 4, 7	**Duties of State Government & Local Authorities** **Facility for Processing/Recycling facility** **provide suitable sites for setting up of the storage, processing and recycling facilities for construction and demolition waste**		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
✓ All ULBs have earmarked the C&D waste deposition facility. ✓ 6 ULBs have proposed to set up processing facilities for C&D waste under SBM 2.0 (Coimbatore, Madurai, Salem, Tiruchirapalli, Thoothukudi and Tiruppur) ✓ In GCC, C&D waste plant of capacity 400 TPD each at Kodungaiyur and Perungudi dumping ground is in function.	100%	100%	✓ All ULBs have earmarked the C&D waste deposition facility. ✓ 6 ULBs has been sanctioned for processing facilities for C&D waste under SBM 2.0 (Coimbatore, Madurai, Salem, Tiruchirapalli Thoothukudi and Tiruppur). Work order issued for Madurai. Retender to be called for Trichy, Salem, Coimbatore, Tiruppur and Thoothukudi. ✓ In GCC, C&D waste plant of capacity 400 TPD each at Kodungaiyur and Perungudi dumping ground is in function.

C&D WASTE RULES: 8	**Duties of State Pollution Control Board** **- To monitor implementation of the Rules by the local bodies** **- To grant authorisation to construction and demolition waste processing facility** **- To submit Annual Report to the Central Pollution Control Board**		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
✓ TNPCB vide Proc. dated 20.05.2020 has issued directions	100%	95%	✓ TNPCB has issued Consent to Operate under Water (P&CP) Act, 1974 & Air (P&CP) Act, 1981 for the

under Section 5 of the E(P) Act, 1986 to respective Line Departments to take necessary action to comply the provisions of the rules and to provide suitable sites for setting up for the storage, processing and recycling facilities for construction and demolition waste			Construction & Demolition waste processing facilities at Kodungaiyur and Perungudi at Greater Chennai Corporation. ✓ Tirunelveli Corporation has proposed to establish a 15TPD capacity C&D waste processing facility at Ramayanpatti. ✓ Trichy Corporation has proposed to set up a 50 TPD C&D waste processing facility under Swachh Bharat Mission (SBM) 2.0.Detailed Project Report (DPR) prepared and tender called under Public Private Partnership (PPP) mode. Paver block is to be obtained as by-product. ✓ In Salem Corporation construction work is under progress for setting up of a C& D waste processing facility under Swachh Bharat Mission (SBM) 2.0. ✓ In Coimbatore Corporation it is proposed to establish a 100 TPD capacity C& D waste processing facility at Vellalore area under Swachh Bharat Mission (SBM) 2.0 through PPP mode and re tenders to be called.
✓ TNPCB has submitted Annual Report for the year 2022-23 to the Central Pollution Control Board on 31.08.2023.	To submit Annual report to the CPCB before 31st July every year	Nil	Nil

Thematic Area: 4. Compliance to Hazardous Waste Rules

HWOM Rules 6 (1-8)	Grant of authorization for managing hazardous and other wastes.		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
TNPCB has identified 4612 units generating hazardous wastes as on 31.03.2023 authorization issued.	-	-	TNPCB is grading authorization to the generators through online.

HWOM Rules 7	**7. Power to suspend or cancel an authorization.-** **(1) The State Pollution Control Board, may, if in its opinion the holder of the authorization has failed to comply with any of the conditions of the authorization or with any provisions of the Act or these rules and after giving him a reasonable opportunity of being heard and after recording reasons thereof in writing cancel or suspend the authorization issued under rule 6 for such period as it considers necessary in the public interest.**		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
Board has issued Closure order to none of the units for non compliance conditions stipulated in Hazardous Waste Authorization issued to the unit.	-	-	Board is taking action against the units if found violating the conditions of authorizations or any other provision of HOWM Rules, 2016.

HWOM Rules 8	**8. Storage of hazardous and other wastes.- (1) The occupiers of facilities may store the hazardous and other wastes for a period not exceeding ninety days and shall maintain a record of sale, transfer, storage, recycling, recovery, pre-processing, co-processing and utilization of such wastes and make these records available for inspection:**		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
TNPCB is monitoring the units during inspection to ensure that the unit is not storing the Hazardous Waste more than 90 days.	-	-	Board is instructing the units to ensure the storage of Hazardous Waste shall not exceed 90 days by stipulating condition in Authorization.

HWOM Rules 9	Utilization of hazardous and other wastes		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
List of Recycling units for recycling of Hazardous Waste under Schedule I, III & IV for which authorization issued under HOWM Rules 2016. 1. Recycling units such as Used Oil - 34 Nos, 2. Waste oil – 24 Nos, 3. Lead bearing waste including battery waste – 23 Nos, 4. Paint & Ink sludge/ residue – 3 No, 5. Zinc & Zinc Ash – 13 Nos 6. Copper Scrap – 7 Nos 7. Brass Dross – 2 No. 8. Spent Catalyst – 1No. 9. E-Waste – 4 Nos. 10. Recovery of solvents – 11 Nos 11. Waste dichromate – 4 Nos The Board has authorized 16 cement plants for co processing of 18.41 lakhs MT per annum of utilizable wastes in cement kilns. During the year 2022-23, about 2.18 lakhs MT of ETP sludge have been disposed to various Cement industries for co-processing through the following Authorized pre processing facilities & from other industries M/s GEPIL- Vellore – Authorized capacity – 50000 TPA M/s Sandhiya Enviro Tech System – Villupuram- 3463 TPA M/s Cheenu Enviro Management – Coimbatore – 45000 TPA M/s Arunachalaa Enterprises - Karur – 60000 TPA M/s. ARUNACHALA ENTERPRISES, Pudukkottai - 48300 TPA	-	**Nil**	The hazardous waste recycled and utilized has been increased from the year 2015-16 till this financial year 2022-23 from 67% to 83%.

Recyclable/Utilizable Waste Disposal for the period 2022-23	
Recyclable Hazardous Waste generation (T/A)	Utilizable Hazardous Waste Generation (T/A)
415628	563179
Hazardous Waste recycled through recyclers (Authorized capacity – 771604.55 T/A)	Hazardous waste Utilized through utilizer, pre processer &Co processing in cement plant - (Authorized capacity – 2117462.14 T/A)

HWOM Rules 16	**Treatment, storage and disposal facility for Hazardous and Other Wastes. (1) The State Government, occupier, operator of a facility or any association of occupiers shall individually or jointly or severally be responsible for identification of sites for establishing the facility for treatment, storage and disposal of the hazardous and other waste in the State.**

Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
There are 3 Nos of TSDF facilities located in Tamilnadu. 1. M/s. Re sustainability IWM Solutions Limited, Export Promotion Industrial Park (EPIP), SIPCOT Gummidipoondi, Tiruvallur District (Permitted capacity Land fillable – 3,00,000 T/A & Incineration – 12,000 T/A)(capacity 1.5 T/hr)	-	-	The cumulative hazardous waste disposed at TSDF, GMP till the end of financial year 2022-2023 is 7,32,702 Tons at CHWTSDF, Gummidipoondi authorized and 1,44,484 at CHWTSDF, Virudhunagar. The CHWTSDF, Virudhunagar is not in operation since 31.03.2023 due to public complaints.

Land fillable Hazardous Waste Disposal for the period 2022-23			
Land fillable HW received (T)	Land fillable Hazardous Waste Disposal (T)	Incinerable HW received (T)	Incinerable Hazardous Waste Disposal (T)
76696 MT	76696 MT	4992	4707

2. M/s. Re sustainability IWM Solutions Limited, Undurumikidakulam, A Mukkulam Village, Thiruchuli Taluk, Virudhunagar District (Permitted capacity Land fillable – 240000 T/A) 3. M/s. Re sustainability IWM Solutions Limited, S.F. No. Plot No. 141 A, 142 and 143. SF No. 726 (Part), BALETHOTTAM village, Pochampalli Taluk and Krishnagiri District (Permitted capacity for landfill – 90885TPA.			

Land fillable Hazardous Waste Disposal for the period 2022-23	
Land fillable HW received (T)	Land fillable Hazardous Waste Disposal (T)
18679 MT	18678.66 MT

HWOM Rules 17, 18,19	**17. Packaging and Labelling.-** **18. Transportation of hazardous and other wastes** **19. Manifest system (Movement Document) for hazardous and other waste to be used within the country only.-**			
Current Status		**Desirable Level**	**Gap**	**Proposal for attending gap**
Packaging, labeling & manifest system is followed by Hazardous waste generators/TSDF/Recyclers/ pre processor TSDF vehicles are fitted with GPS arrangement		-	**Nil**	TNPCB is monitoring the transportation of hazardous & other waste & manifest system.

HWOM Rules 20	Records and returns		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
TNPCB has identified 4266 hazardous wastes generating units and the units are maintaining in Form – III & form – IV as per the Rules & annual returns are submitted to CPCB within the stipulated time.	-	Nil	TNPCB has submitted annual inventory for the year 2022-23 on 29th September 2023.

HWOM Rules 23	**Liability of occupier, importer or exporter and operator of a disposal facility** **(1) The occupier, importer or exporter and operator of the disposal facility shall be liable for all damages caused to the environment or third party due to improper handling and management of the hazardous and other waste.** **(2) The occupier and the operator of the disposal facility shall be liable to pay financial penalties as levied for any violation of the provisions under these rules by the State Pollution Control Board with the prior approval of the Central Pollution Control Board.**

Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
The calculation of Liability & Environmental Compensation is being followed as per CPCB guidelines. During the year 2022-23 the following unit was levied with Environmental violation of HOWM Rules, 2016.	-	Nil	-

Name of the unit	Financial penalty levied in Rs.	Financial penalty remitted in Rs.
M/s ARPE Lubricants, SF no. 406, Plot No. 94, SIDCO Industrial Estate, Malumichampatty Village, Madukkarai Taluk, Coimbatore District.	Rs. 6 Lakhs under Section 5 of EPA vide proc dated: 28.03.2023.	Rs.6 Lakhs vide DD No. 675598 dt: 16.3.2023.

Thematic Area: 5. Compliance to E-Waste Rules

Thematic Area:3(V)	Compliance of E-Waste Management Rules, 2022		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
• TNPCB has authorized 40 Dismantlers and 6 Recyclers as per the EWM Rules, 2016. As per the Annual Report 2022-23, 34212 tons of E-Waste were recycled.	• Inventorisation of e-waste. • Implementation of programmes to encourage environmentally sound recycling.		• TNPCB in the process of collaboration with the UK Deputy High Commission to carryout E-Waste inventorisation and gap analysis project. • TNPCB addressed the Industries department, Housing and Urban Development Department to allocate land in existing and upcoming industrial area for environmentally sound management of E-Waste.
• The MoEF&CC, GoI notified the E-Waste (Management) Rules, 2022 on 2nd November 2022 and it came into effect from 01.04.2023.	• All the Producers, Manufacturer, Recycler and Refurbisher shall register with CPCB through Online Portal.	• Registration Module for Producer and Recycler is available and the remaining modules will be developed by the CPCB.	• TNPCB, Instructed all the producers registered under the EWM Rules, 2016 to migrate and register under the new EWM Rules,202
• TNPCB instructed all the DEEs/JCEEs(M) to	• Monitoring and compliance of Extended		• As on 03.10.2023, 1 Recycler and 277 Producers from Tamil Nadu have registered

implement the E-Waste Management Rules,2022 in their respective jurisdiction. • All the Local Bodies were instructed to comply with the EWM Rules, 2022. • Stakeholders meeting conducted on 25.01.2023 along with all the DEEs/JCEEs(M) for effective implementation. • All the DEEs, JCEEs(M) were directed to organize awareness campaign and to distribute the approved pamphlets.	Producer Responsibility as directed by Central Pollution Control Board. • Conduct random inspection of recycler and refurbisher and monitoring recycling capacity utilization.		with the CPCB. • TNPCB is furnishing verifying report on EPR Authorized producers, collection centres, dismantlers, recyclers on quarterly basis and submitting report to the CPCB periodically. The latest quarterly report to the CPCB was submitted on 27.07.2023.

Thematic Area: 6. 351 Polluted River Stretches in the Country (10 rivers in Tamil Nadu)

Thematic Area : 3 (VI)	Polluted River Stretches in the Country Hon'ble NGT (PB) order in O.A No. 673/2018 dated 20.09.2018, 19.12.2018, 08.04.2019,29.11.2019, 22.06.2020, 21.09.2020 & 22.02.2021

Current Status	Desirable Level	Gap	Proposal for attending gap
In Tamil Nadu, CPCB has identified 10 Nos. of Polluted River Stretches based on Bio-Chemical Oxygen Demand (BOD) values and categorized as five priorities. (CPCB desired Levels: BOD < 3.0mg/l, DO > 5.0mg/l, Faecal Coliform < 500MPN/100ml). 1. **River Sarabanga** (Thathayampatti to T.Konagapadi Stretch-15Kms)-**Priority-II** (BOD 20 to 30 mg/l).The CPCB data as on Sep-2018 the level of BOD is 78.0 mg/l. Current Status as on August 2023, the values of BOD - 36 mg/L. 2. **River Thirumanimutharu** (Salem to Papparapatti Stretch-15Kms) – **Priority-I** (BOD > 30 mg/l), The CPCB data as on Sep-2018 the level of BOD is 190.0 mg/l. Current status as on August 2023, the values of BOD – 27 mg/L. 3. **River Vasista** (Manivilundhan to Thiyaganur Stretch-10Kms) – **Priority-I** (BOD > 30 mg/l), The CPCB data as on Sep-2018 the value of BOD is 675.0 mg/l. Current status as on August 2023, the values of BOD - 6 mg/L, DO – 3.7 mg/L and FC -7800 MPN/100 ml.	To bring the river water fit for bathing standards (Class-B standard) Bio-chemical Oxygen Demand (BOD) <3.0 mg/l is to be achieved.	There is a gap in satisfying the water quality standards in respect of Rivers sarabanga, Tirumanimutharu and Vasista. It will be maintained when e-flow is maintained and action plan is completed. In respect of rivers Cauvery, Bhavani, Tamiraparani, Palar and	➢ The Hon'ble NGT (PB) in O.A No. 673 NGT /2018 ordered to rejuvenate the Polluted River Stretches by preparing action plans. ➢ Based on the Hon'ble NGT (PB) directions, River Rejuvenation Committee (RRC) was constituted in Tamil Nadu vide G.O. (D) No. 372 dated: 26.12.2018 and G O (D) No.11 E&F dated:20.01.2020 to prepare action plans and to monitor the execution of the action plan for the polluted river stretches in Tamilnadu. RRC meeting was convened latest on 22.06.2023 by the Additional Chief Secretary to Government, Municipal Administration and Water Supply Department along with the concerned line departments and requested to

4. **River Cauvery** (Mettur to Mayiladuthurai Stretch-200Kms) - **Priority-III** (BOD 10 to 20 mg/l), The CPCB data as on Sep-2018, the value of BOD is 3.3 to 32.0 mg/l. Current status as on August 2023, the values of BOD is 1.3 to 2.7 mg/L, DO - 5.9 – 8.8 mg/L and FC – 4.5 – 68.0 MPN/100 ml. 5. **River Bhavani** (Sirumugai to Kalingarayan Stretch-60Kms) - **Priority-V** (BOD 3 to 6 mg/l), The CPCB data as on Sep-2018, the BOD is 3.3 to 6.6 mg/l. Current status as on August 2023, the values of BOD 1.8 to 2.7 mg/L, DO – 5.8 – 6.3 mg/L and FC - 12 – 22 MPN/100 ml. 6. **River Thamirabarani** (Pappankulam to Arumuganeri Stretch-80Kms) - **Priority-IV** (BOD 6 to 10 mg/l), The CPCB data as on Sep-2018 BOD is 3.1 to 4.0 mg/l. Current status as on August 2023, the values of BOD 2 to 4.0 mg/L, DO – 4.2 – 5.8 mg/L and FC - 9 – 20 MPN/100 ml. ➢ Action plans for six polluted river stretches were submitted to CPCB and approved. • As per the Hon'ble NGT (PB) order, the action plans for six Polluted River Stretches were hosted in the TNPCB website after the approval of RRC vide web link http://www.tnpcb.gov.in/polluted-riverstretches.php and the same has been		Amaravathi the bathing standards of CPCB is satisfied.	follow up the implementation of action plans proposed and also to furnish the action taken reports. ➢ The District Level Committees have been formed to monitor and review the action plans proposed by the concerned line departments at Districts level as per the Hon'ble NGT Order in O.A. No. 606/2018 dated 23.04.2019. ➢ Government of Tamil Nadu have initiated a project in the name of "Nadanthai Vaazhi Cauvery" in Tamil Nadu which is a massive rejuvenation programme for the River Cauvery and its Tributaries including the Rivers Sarabanga, Thirumanimutharu and Bhavani and Detailed Project Report (DPR) is prepared and submitted to GOI for funding. For the above project, PWD is the co-ordinating agency.

communicated to the CPCB. ➢ Action Taken Reports on the action plans for the six polluted river stretches for the period up to March 2023 were received from the line departments concerned, compiled and copy furnished to CPCB and Govt., of Tamil Nadu. ➢ As per the Hon'ble NGT (PB) order the water quality data for the six polluted river stretches are being hosted in the TNPCB website on regular basis from 23.04.2019 onwards vide web link http://www.tnpcb.gov.in/polluted-riverstretches.php and the same have been communicated to the CPCB. ➢ Executive summary for the approved action plans under priority-I polluted river stretches (River Sarabanga, Vasista, Thirumanimutharu and Cauvery) have been submitted to the CPCB vide TNPCB letter No. TNPCB/DD(L)/F.No.6849/PRS-ES/2016 dated: 27/12/2019 and mail dated 02/01/2020. For balance polluted river stretches announced during 2022 viz., Amaravathi, Palar, Coum and Adyar Action Plans are being prepared in co-ordination with the line departments. ➢ Government of Tamil Nadu have directed the TNPCB/ Public Works dept. to furnish performance guarantee of Rs. 10 crore for the six polluted river stretches and also to pay compensation of Rs. 4 crore to the CPCB (as per Hon'ble NGT order) on behalf of			➢ Accordingly, the TNPCB has approved vide B.P. No.80 dated: 04/12/2019 for furnishing the performance guarantee of Rs. 10.00 Crore and to remit the compensation/penalty of Rs. 4.00 Crore to the CPCB by utilizing Board's fund after getting the Government Order. The Government of Tamil Nadu has directed TNPCB to remit the performance guarantee of Rs. 10 crore and the same shall be

State of Tamil Nadu. ➢ Hon'ble NGT (PB), New Delhi has issued direction vide order dated 06/12/2019 in O.A. No. 673/2018 regarding execution and completion of Rejuvenation of Polluted River Stretches works in the States and also to install the monitoring mechanisms for the Rejuvenation of Polluted River Stretches. ➢ Quantity of sewage generated and treated in the state, gap in the sewage treatment and timelines to bridge the gap including strategy for use of treated water for secondary purpose with respect to six polluted river stretches in Tamil Nadu. Further, the States need to furnish information about the compliance of directions including in-situ and ex-situ remediation by way of phyto remediation/artificial wetlands, bio-diversity parks or any other appropriate measures to supplement load reduction on recipient River systems. ➢ RRC meeting was held on 22.06.2023 under the Chairmanship of Additional Chief Secretary to Government, Municipal Administration and Water Supply Department along with the RRC members and line departments concerned to review the action plans for the rejuvenation of Rivers. • The action plans for Polluted River stretches such as River Sarabanga, Thirumanimutharu, Vasista, Cauvery and Bhavani have been approved by the CPCB Task Team. As Tamiraparani River is		**Industrial Pollution:** No Industrial discharge into the polluted River Stretches.	reimbursed by the PWD. The PWD commitment is awaited. The Environmental compensation of Rs. 4 crore is to be paid to CPCB. The Tamil Nadu Pollution Control Board has proposals to provide online Water Quality Monitoring Stations in important Rivers Viz., Tamiraparani, Cauvery, Noyyal, etc. On continuous persuasion and efforts of Tamil Nadu Pollution Control Board, the priorities of the Polluted River Stretches have been shifted to lower priority class by the Central Pollution Control Board. The Member Secretary, CPCB, Delhi has been addressed from this office letters dated: 14.9.2022, 2.2.2023 and 20.2.2023 to delist the Polluted River Stretches. Also, based on the suggestions of the task team, details requested from the Commissioner of Municipal

classified as Priority V no approval of CPCB is required. Also, the task team recommended that the Government of Tamil Nadu may file an affidavit in the Hon'ble NGT with supporting data for exemption or deletion of river stretch from the list. ➢ National Mission for Clean Ganga (NMCG), Ministry of Jal Shakti, New Delhi is conducting quarterly review meeting with the line department officials concerned of the State Government through video conference on the progress of rejuvenation works and assessment of Polluted River Stretches as per the Hon'ble NGT (PB) order dated 06.12.2019 in O.A. No. 673/2018 and last meeting was conducted on 12.05.2023. ➢ The assessment of Polluted River Stretches in Tamil Nadu was assessed by the Central Monitoring Team members from National Mission for Clean Ganga (NMCG, Ministry of Jal Shakti), National River Conservation Directorate (NRCD) and Central Pollution Control Board (CPCB) with a preliminary meeting with the concerned line departments on 02.03.2020 at TNPCB, Guindy, Chennai and the team inspected the polluted river stretches on 03.03.2020 along with the line departments officials as per the Hon'ble NGT (PB) order dated 06.12.2019 in O.A. No. 673/2018.		**HW-** No gap **BMW-** No gap PWD is to provide Rain Water Harvesting structures. **Ground Water Regulation:**683 Nos. of illegally operated packaged drinking water units closed.	Administration, the District Environmental Engineers of TNPCB Perundurai and Coimbatore North vide TNPCB letter dated 20.03.2020 and the details received were consolidated and submitted to the CPCB vide this office letter dated 30.06.2020. Qty. Of sewage generated -3938.29 MLD Treatment capacity (STP)- 2344.47 MLD Treatment capacity (FSTP) - 0.984 MLD Sewage being treated through Alternate Technology: 957 MLD Under Construction STPs & FSTPs : 267.185 MLD Gap- 368.651 MLD As per action plans all the works are being carried-out. Action to bridge the gap between generation and treatment of sewage and MSWs. **Sewage:** Proposed – 39 STPs and 5 FSTPs to bridge the gap.

➢ The Central Monitoring Team has furnished its observations and recommendations after the assessment of Polluted River Stretches in Tamil Nadu. ➢ Based on the Central Monitoring Team observations and recommendations, details were requested from the line departments concerned vide TNPCB letter dated 21.05.2020 & 12.06.2020 and the details received were consolidated and furnished to the Central Monitoring Team, NMCG, Ministry of Jal Shakti vide letter dated 30.06.2020. ➢ Letters from TNPCB dated: 14.09.2022,2.2.2023 and 20.2.2023 have been submitted to CPCB to delist all the Polluted River Stretches from the polluted river stretches list and the CPCB order is awaited. ➢ Central Monitoring committee (CMC) meeting is being conducted every month to review the progress made on existing STPs, STPS under construction, proposed STPs, management of municipal solid wastes, CETPs, etc., on the matter of rejuvenation of Polluted river stretches under the Chairmanship of Secretary, Department of Water Resources, RD&GR, Ministry of Jal Shakti, New Delhi through video conference.The monthly progress report upto March 2023 has been submitted to NMCG- Ministry of Jal Shakthi with a copy to the CPCB. ➢ The Additional Chief Secretary to Government,			**MSWs** Generation : 15,508 TPD Treatment Facility : 9,775 TPD Under Construction : 1,745 TPD **Proposed CETPS:** 10 Nos. of 41 MLD capacity CETPs are proposed at Namakkal and Erode districts for textile clusters. The approved DPRs for the above CETPs have been forwarded to GOI for funding. No unit is in operation either without connected with CETPs or without individual ETPs. **Reuse of treated Waste water-** 81 MLD PWD(WRD) Rain Water Harvesting : Existing – 123 Nos Under Construction – 16 Nos. Proposed – 283 Nos Note : 683 Nos. of illegal packaged drinking water firms were closed by Hon'ble Madras High Court. All the line departments have been addressed from this office continuously to complete the works as per the action

Municipal Administration and Water Supply Department reviewed along with the RRC members and line departments concerned regarding progress of action taken on Polluted River Stretches on 22.06.2023 for the rejuvenation of Rivers regarding STPs, MSW treatment facilities, maintaining the water quality and rejuvenations along the PRS. The PS instructed the line dept. officials to speed up the implementation works. The Chief Secretary to government reviewed the progress of the works on 20.04.2022 and requested the line departments to expedite the works. ➢ 17th Central Monitoring Committee meeting was held on 12.09.2023 under the Chairmanship of Secretary, Ministry of Jal Shakti with discussion on Sewage treatment plants, Municipal Solid waste Management, Industrial Pollution, Common Effluent Treatment Plants, Hazardous Waste Management, Biomedical Waste Management and reuse of treated waste water, rejuvenation works by Public Works Department, etc. were reviewed. ➢ The agenda discussed in the meeting Status of implementation of Action plan by States were as follows: a)STPs/CETPs with respect to projects awaiting sanction or in DPR stages (incremental progress in respect of projects) b) Status of existing STPs (related to functioning, compliance and action			plans. The subject is being reviewed by the Principal Secretary, Environment and Forests Department, Government of Tamil Nadu and Chief secretary to Government. To comply the NGT directions all steps are being taken in the State by means of continuous review of the progress of the works and speedy implementation. • Every Quarter the Central Monitoring Committee meeting is conducted. • River Rejuvenation Committee meeting is conducted frequently. • The line departments have been

taken to restore the functioning of existing STPs) c) Solid waste management interventions d) Rejuvenation works by Public Works Department such as Ground water Quality & management e-flows, sedimentation, desilting etc., e) Action plan management of pollution in coastal areas/States. ➢ The Hon'ble NGT issued final directions as below in the matter of O.A 673of 2018 dated: 22.02.2021. • The MoJS may devise a National River Rejuvenation Mechanism (NRRM) for more effective polluted river stretches. Monitoring for control of pollution and rejuvenation of all polluted river stretches. • The Chief Secretary must work in mission mode for strict compliance of time lines of commencing ongoing and new projects. • The Chief Secretary may personally monitor progress at least once in every month and NRRM in every quarter • The Chief Secretary is accountable for failure to comply with the direction for payment of compensation under Sections 25, 26, 28 and 30 of the NGT Act, 2010. • The Hon'ble NGT Directions have been communicated to the Government and line departments for taking necessary action early.			addressed during June 2023 and September 2023 by Tamil Nadu Pollution Control Board to complete the works as per the River Action Plans. • The Chief Secretary to Government is reviewing the progress of implementation of action plans with line departments frequently.

Thematic Area: 7. 131 Non-attainment Cities

Thematic Area :3(VIII)	Status of Non –attainment cities (Chennai, Madurai, Trichy and Thoothukudi)

<table>
<tr><th>Current Status (PM_{10} - $\mu g/m^3$)</th><th>Desirable level (<PM_{10} -60 $\mu g/m^3$)</th><th>Gap</th><th>Proposal for attending gap</th></tr>
<tr>
<td>As per the directions of the Hon'ble National Green Tribunal, Action plan for Non-Attainment City (NACs)-Thoothukudi was approved by CPCB on 16.5.2019. The short term action points up to November-2019 were completed and actions are being taken to implement the action plan with the coordination with other stake holders. City action plan of Chennai, Madurai and Trichy are approved by CPCB on 7.01.2022

As per the Hon'ble NGT order OA 681 of 2018 dated 21.08.2020, status of the following directions with respect to state are given below.

Direction IV- PGRP is in operational for all the 4 NACs of Tamil Nadu.

Direction V & VI-the CPCB approved City Action Plan of all the 4 NACs is under implementation.

Direction VII- the microplan/ annual action plan of Thoothukudi, Madurai, Trichy and Chennai for the FY 2022-23 has been submitted in the PRANA</td>
<td>Reduction of PM_{10} in Thoothukudi town, Trichy UA, Madurai UA and Chennai UA.</td>
<td>The current annual values of PM_{10} for the year ended March-2023 is tabulated below: -
<table>
<tr><th>Cities</th><th>PM10 $\mu g/m^3$ (FY 2022-23)</th></tr>
<tr><td>Chennai U.A</td><td>63</td></tr>
<tr><td>Madurai U.A</td><td>67</td></tr>
<tr><td>Trichy U.A</td><td>44</td></tr>
<tr><td>Thoothukudi</td><td>65</td></tr>
</table>
The values of Chennai U.A, Madurai U.A and Thoothukudi for the year 2022-23 are still above the annual standard value of 60 microgram/ cubic</td>
<td>As per the direction I, the CPCB has sanctioned EC fund for the establishment of CAAQM station in Trichy.
Under XVFC Grant-in – Aid for the air quality improvement Chennai, Madurai and Trichy has proposed additional CAAQM station to meet required number of monitoring station as per the guidelines of CPCB with respect to the population. The CPCB has advised the ULBs not to spend the funds grant under central Scheme for the procurement of CAAQM until further orders.
As per the direction II, Carrying capacity and Source Apportionment study of Thoothukudi is in progress by Indian Institute of Technology, Madras under the EC fund of CPCB and NCAP fund. The study on Carrying capacity and Source Apportionment study of Chennai, Trichy and Madurai is completed and the report is under preparation by IIT-Madras.</td>
</tr>
</table>

portal developed by CPCB. The micro plan of Trichy and Chennai has been conditional approved on 12.12.2022 and for those of Thoothukudi and Madurai is under revision. *Direction XI*- ERS for Thoothukudi has been developed as part of City Action Plan and the same has been approved by CPCB on 16.5.2019 and Chennai, Trichy and Madurai have been approved on 07.01.2022. The direction of Hon'ble NGT order 681/2018 dated 8.04.2021 as follows: i. Constitution of an eight –member National Task Force (NTF) to be headed and coordinated by the Secretary MoEF&CC with nominees not below the rank of Joint secretaries of Ministries from Housing and Urban Development, Road Transport, petroleum, Power. Agriculture, Health and Chairman, CPCB with a view to monitor remedial steps to improve the status of air quality in NACs consistent with the action plans already prepared and approved by the Expert Committee and directions of this tribunal a) Monitor compliance of noise control norms. b) Monitor enforcement of laid down air quality standards beyond NACs identified cities.		meter. Whereas PM_{10} values of Trichy U. A. are well within the ambient air quality standards.	As per the *direction III,* The shifting, prohibiting and regulating activities beyond carrying capacity will be decided based on the SA and CC studies. In this regard as per the direction of MoEF&CC and CPCB. The CPCB has identified the Institute of Repute namely IIT Madras for cities Chennai, Madurai, Trichy and Thoothukudi for the technical support. The District administration of Thoothukudi is taking necessary steps in coordination with the other stake holder departments for the reduction in PM_{10} pollution. TNPCB has transferred a sum of Rs 3.06 Crore as grant-in-aid to Thoothukudi Municipal Corporation for the implementation of City Action Plan components for the FY 2021-22 and subsequently MoEF&CC has released a sum of Rs 4.13 Cr for the FY 2022-23 and the same has been transferred to Thoothukudi Municipal Corporation for the implementation of CPCB approved City Action Plan/ Microplan components. Accordingly, Thoothukudi Corporation has submitted the proposal in the PRANA portal developed by CPCB and awaiting for the approval of same. MOEFCC has released 1st tranche of Rs.1.36125 crore to Thoothukudi for the air

ii. NTF may hold its first meeting within one month and thereafter evolve mechanism for monitoring by quarterly meeting with Chief Secretaries of concerned States/UTs. iii. Monitoring by NTF may be with reference to the action plans of 131 NCAs. The components include installation of monitoring stations, Completion of CC and SA studies, shifting, prohibiting and regulating activities beyond carrying capacity, effectiveness of PGRPs timelines for execution of the action plans and recovery compensation for delay, addressing gap in control. Noise pollution, afforestation drives utilizing CAMPA funds, effective implementation of ERS, revamping of PCBs/PCCs and other monitoring mechanism, remediation of legacy waste (Biomedical, plastic and e-waste, dust control, Public awareness, and community involvement programme and setting up of data grids on all levels. iv. NTF may also evolve and oversee parameters for interest ranking of success of remedial action for 124 NACs and other air polluted area where air quality is poor and above. v. MoEF&CC/CPCB may consider setting up and periodically updating National Environmental Data Grid (NEDG) linked to the State Environment Data Grids (SEGs) District Environment Data Grids (DEDGs) and further link to available portals like			quality improvement for the FY 2023-24. The fifteenth finance Commission has released a sum of 181 crores, 31 crores and 21 crores were released as grants to million plus cities for the year 2020-21 for the improvement of air quality for Chennai, Madurai and Trichy cities respectively in Tamil Nadu. The city level performance of the million plus cities for the FY 2020-2021 was assessed by the State Level Implementation Committee and the report has been submitted to CPCB in the month of February 2022. The Fourth Steering Committee convened by MoEF&CC released fund for the FY 2021-2022 of Rs. 91 Cr, 22.35 Cr, and 18.35Cr for the cities Chennai, Madurai and Trichy respectively. Trichy and Madurai received an incentive grant of Rs.7.35 crore each which is included in the total grant for the FY 2021-22. Based on the performance assessment by State Level Monitoring Committee, Department of Environment (DoE) has released a grant-in-aid fund of Rs.95 Crore for Chennai, 19.03 Crore for Madurai and 11 Crores for Trichy for the implementation of CPCB approved City Action Plan. Madurai

online air quality, Sameer and monitoring station vi. The Chief Secretaries of all States/ UTs may continue to monitor progress in execution of action plans at State Level. The application is disposed off. As per the *Direction III* of Hon'ble NGT order 681 of 2018, dated 08.04.2021, the ULBs of NACs are following the direction III a. In CEPI area, the industries are converted to cleaner fuels and TNPCB regularly monitoring the air pollution status. b. On international blue sky day, the non-attainment cities Chennai, Madurai, Trichy and Thoothukudi has convened public awareness and the details are uploaded in the PRANA portal. <u>Identification of hot spots by TNPCB and action plan</u> Chennai- 16 No Trichy-20 No Madurai-6 No Thoothukudi-6No			has received an incentive grant of Rs 3.03 crore which is included in the total grant for the FY 2022-23. MoU between Million plus ULBs (Chennai, Trichy and Madurai), State Government and MoEF&CC has been signed on 04.02.2022.for the effective implementation of CPCB approved City Action Plan as per the "Operational guidelines for implementation of Recommendations on Urban Local Body Grants" for the implementation on ambient air quality component in the Million plus Challenge fund for Million Plus Cities/ Urban Agglomerations under XVFC Grant. 4th SLMIC meeting convened on 21.06.2023 recommended 100% releases of fund to the million plus cities Indian Institute of Technology Madras (IoR-Institute of Repute under NCAP) has prepared the Hotspots action plan of Chennai,Trichy Madurai and Thoothukudi the same has been approved by District Level implementation Committee Chairman and uploaded in the PRANA portal of CPCB by ULBs.

Thematic Area: 8. 100 Industrial Clusters

Thematic Area :4(IV)	Status of Comprehensive Environmental Pollution Index

Current Status

CEPI Index evolved by CPCB in 2018:

Sl. No	Name of Polluted Industrial Area (PIAs) in Tamilnadu	*CEPI Score
10	Manali	84.15
21	Vellore	79.38
32	Tiruppur	72.39
34	Mettur	71.82
50	Tuticorin	66.34
60	Coimbatore	63.64
62	Cuddalore	62.56
67	Erode	60.33

Based on the Hon'ble NGT order, MoEF,CC has evolved a mechanism for new activities/expansion of Red & Orange category industries in Critically

Desirable Level

Industrial areas having CEPI score > 80 considered as Critically Polluted Industrial Area and if CEPI score is > 70 and < 80 considered as Severely Polluted Industrial Area.

Gap

Name of Polluted Industrial Area (PIAs) in Tamilnadu	CEPI Score	Desirable Limits
Manali	84.15	<60
Vellore	79.38	<60
Tiruppur	72.39	<60
Mettur	71.82	<60
Tuticorin	66.34	<60
Coimbatore	63.64	<60
Cuddalore	62.56	<60
Erode	60.33	<60

Proposal for attending gap

Based on the CEPI score of 2018 assessed by CPCB, continuous efforts were taken by TNPCB during the year 2018-2019 2019 -2020, 2020-21 for reducing the CEPI score with regard to Land, Air & Water Environment.

The CEPI score for the Polluted Industrial Area (PIAs) of Tamil Nadu for the period 2018-2021 evaluated on Environmental Quality monitoring by third party NABL accredited laboratories.

Sl. No.	Location of industrial clusters	CEPI score worked out by TNPCB based on study results.						
		Pre monsoon 2019	Pre monsoon 2020	Post monsoon 2020	Pre monsoon 2021	Post monsoon 2021	Pre monsoon 2022	Post monsoon 2022
1.	Manali	26.26	56.57	32.03	40.604	32.032	31.0	31.204
2.	Ranipet	28.13	22.18	22.18	21.792	21.074	22.2	22.048
3.	Tiruppur	24.32	38.07	46.99	29.49	32.398	32.398	27.795
4..	Mettur	20.77	21.28	24.18	27.48	21.39	24.175	23.02

/Severely Polluted Industrial Areas. TNPCB has followed the mechanism for new activities/expansion of Red &Orange category Industries in the above said Polluted industrial Areas.	The CEPI score shall be reduced below 60.		

5.	Thootukudi	44.25	44.95	42.17	41.96	41.7	41.7	24.383
6..	Coimbatore	8.6	28.29	35.51	35.00	35.21	35.21	35.23
7.	Cuddalore	26.38	31.12	31.12	36.36	37.17	36.72	31.29
8.	Erode	25.02	20.27	50.69	49.73	49.71	49.71	49.71

CEPI score >70 - Critically Polluted area(CPAs).

CEPI score between 60 to 70 - Severally Pollution area(SPAs)

CEPI score <60 - Other Polluted area

Pre- & post- monsoon 2022 was conducted for the 8 Polluted Industrial Areas (PIAs).

The CEPI scores arrived were sent to CPCB.

The Work orders for Pre-monsoon 2023 study are ongoing.

The CEPI score for the past 3 years were uploaded in the TNPCB website.

Thematic Area: 9. Status of STPs and re-use of treated water

Current Status	Desirable Level	Gap	Proposal for attending gap
Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) or (Metro water) was established in 1978 is maintaining the Water Supply and Sewerage system within Greater Chennai Corporation. The operational area of Chennai city is 426 Sq.km and its present population is 74.38 Lakhs. The comprehensive wastewater management for the city was commenced in 1961 and had undergone modifications periodically commensurate with the system requirements of an expanding City and the growing population. **Sewage Generation:** The estimated Sewage Generation at present is 743 Million litres per day (MLD), with the sewage collection calculated at 100 litres per capita for the current population. Treatment: The sewage system of the core Chennai city is divided into 5 zones with independent zonal collection, conveyance, treatment and disposal facilities. The collected sewage from pumping stations is treated at 22 Sewage Treatment Plants. ✓ In Chennai city, Chennai Metropolitan Water Supply and Sewerage Board is providing sewerage services including wastewater treatment, reuse of			CMWSSB has set itself an ambitious target for recycle and reuse by 2030 At Present – 13% 2025– 25 % 2030– 50%

treated water and power generation from Sewage Treatment Plants. Sewage Treatment Plants at Chennai have an installed capacity of 1082.80 MLD. The present Utilization is 650 MLD Avg (60%), an increase of 18% from the Utilization in 2019 at 532 MLD Avg. Quality monitoring: ✓ All the existing plants are compliant with the existing discharge standards specified by TNPCB for PH – 6.5 to 8.5, BoD <20 mg/L, CoD<250 mg/L, TSS<30 mg/L and Fecal coliform<10000 MPN. The discharge standards apart from the inhouse labs, are also periodically tested by the TNPCB. Further, CMWSSB has conducted third party performance check of the STPs through Centre for Environmental Studies Anna University for compliance on discharge standards. ✓ To monitor the quality parameters continuously as per CPCB directions, Installation of online continuous effluent monitoring system (OCEMS) under progress in all completed and ongoing STPs. Reasons for underutilization: ✓ The present Utilization averages is at 60%, however providing UGSS and septage collection improvements for newly added areas, Sewage collection system improvements in old areas and plugging of outfalls, interception and diversion works in all the Chennai city waterways viz., Adyar river, Buckingham Canal and Cooum river are in progress to achieve maximum			

utilization. At present there is no inadequacy in sewage treatment capacity for the sewage collected, however following actions have been taken for improving collection. House Sewer Connections ✓ To bridge the gap in generation and treatment CMWSSB is actively effecting house sewer connections for eligible consumers in both old areas with already existing sewerage system and newly added areas with recently commissioned UGSS under various schemes, collecting connection charges in instalments have been given since 2019 under these schemes. ✓ CMWSSB, for people under below the poverty line is effecting sewer connections to their premises at Rs.100 per connection to improve hygiene and safe disposal of sewage since 2019 under this scheme. Septage Collection ✓ To collect faecal sludge from the added areas of the Greater Chennai Corporation, served by septic tanks, CMWSSB has increased the number of decanting points in Sewage Treatment Plants for collection and co-treatment. ✓ The collection of septage has been increased from 2.1ML in 2019 to 8.65ML at present and cotreated at Nesapakkam, Perungudi and Sholinganallur. ✓ To regulate the septage desludging operators, the State has framed			

Regulations and Operational guidelines to ensure the usage of treatment facilities and thereby safe disposal of fecal sludge and septage. Sewage Outfalls into river drains ✓ The restoration of the Chennai waterways is at the top of the priorities for the Government of Tamil Nādu and accorded Administrative Sanction vide G.O. (Ms) No. 107 MA&WS (MW1) Dept, dt: 20.08.2019 "Plugging of sewage outfalls into the drains of Buckingham canal and Adyar and Cooum rivers in Chennai city". Interception and Diversion works and Infrastructure Strengthening works were proposed and Work orders has been issued for 36 nos of work (6 nos of Interception & Diversion works and 30 nos of Infrastructure Strengthening works) amounting to Rs. 364.80 crores. As on 30.06.2022, 12 nos of works have been completed and the remaining works are in progress. Sewage Outfalls into rivers ✓ Cooum - CMWSSB obtained sanction and took up implementation of thirteen works at a total cost of 193.25 Crore under Integrated Cooum river eco-restoration project of CRRT. The works consisted of ten numbers of Interception & Diversion arrangements along the river including a Under Ground Sewerage Scheme (UGSS) at Nerkundram, two Modular Sewage Treatment Plants (STPs) for treatment of the diverted Sewage at Chetpet and Nungambakkam and one 10 MLD Sewage Treatment Plant (TTUF) at			

Langs Garden. The nine interception and diversion works and the modular sewage treatment plant at Chetpet and Choolaimedu has been completed. The two-balance works are expected to be completed by December 2023. ✓ Adyar - CRRT Board had sanctioned ten works (Seven numbers of I&D works and three numbers of Modular STPs) prepared for the mitigation of sewage outfalls within Chennai city into River Adyar at a total cost of 90.95 Crore. CMWSSB has completed five I&D works and two modular STPs, one modular STP at Kotturpuram and one at Todd Hunter nagar has been completed, out of the remaining three works, one modular STP at Kundrathur Municipality and remaining two I&D works are completed. STP Capacity addition: ✓ Based on the requirements for the treatment of the sewage to be collected from the ongoing underground sewerage schemes, future growth in generation and also considering STPs to be phased out additional Sewage Treatment plants for a total capacity of 476.80 MLD. Out of the 471.80 MLD, Kodungaiyur Zone II 120 MLD & Zone I 120 MLD, Thiruvottiyur 31MLD, Nesapakkam TTUF 10 MLD and 50MLD STP, Modular STPs of 1.0MLD, 1.2 MLD, 4.0MLD and 0.6 MLD at Chetpet, Choolaimedu, Todd Hunter Nagar and Kotturpuram respectively for a total capacity of 337.80 MLD has been completed and works for the balance 134 MLD (Sholinganallur 54 MLD, Perungudi 60 MLD, Perungudi TTUF 10 MLD,			

Langs Garden TTUF 10 MLD) are in progress and Villivakkam 5 MLD TTUF Tendring in progress. ✓ The new plants are designed to achieve the new discharge standards ordered by the NGT in 2019 for mega and metropolitan cities including nutrient removal and are expected to be operational by the first quarter of 2023. Utilization of treated sewage: ✓ CMWSSB has been promoting the reuse of wastewater in Chennai from the 1980s. Farm forestry was developed around sewage treatment plants at Kodungaiyur and Nesapakkam in the 1980s itself. The secondary treated waste water is supplied for industrial purposes early from the year 1993 and to GCC & TNRDC for landscaping and gardening purposes. ✓ The present average inflow of sewage received, treated and discharged in Chennai city is 650 MLD, out of which 25.00 MLD of secondary treated waste water, 46.00 MLD of tertiary treated water is supplied for industrial purposes, 8.00 MLD of Tertiary Treated water is discharged to urbanized lakes which have lost their catchment due to rapid growth for recharging and reuse, and 0.20 MLD is supplied to GCC & TNRDC for landscaping and gardening purposes. The remaining treated waste water is being discharged into the Chennai city water ways as per TNPCB norms. A total of 100 MLD (90 MLD TTRO + 10 MLD TTUF) of tertiary treatment plants have been constructed and commissioned since 2019. Another 20 MLD of tertiary			

treatment plants are under construction. Tertiary Treatment using Reverse Osmosis Plants: ✓ The two 45 MLD Capacity each Tertiary Treatment Reverse Osmosis (TTRO) Plants at Kodungaiyur and Koyambedu including Supply and laying DI Transmission mains for conveyance of Product water to various industries in Manali and industries at Sriperumbudur, Irungattukottai and Oragadam were constructed at a cost of Rs.235 crore and Rs.396 Crore respectively on Design, Build and Operate (DBO) basis. The construction was completed and the plants were commissioned in Dec 2019. ✓ The tertiary treatment facility utilizes the secondary treated water discharged from the existing STP at Kodungaiyur and Koyambedu. ✓ Name of the Industries TTRO water supplied from Kodungaiyur - Chennai Petroleum Corporation Lld, Manali Fertilizers Ltd, Manali Petrochemicals Ltd, Tamil nadu Petroproducts Lld - LAB & HCD plant (Plant 1 & 2), CETEX, Indian additives Ltd, Kothari Petrochemicals Ltd, North Chennai Thermal Power Station - Stage I & II, National Thermal Power Corporation JV Tamil Nadu Energy Company Ltd. ✓ Name of the Industries TTRO water supplied from Koyambedu - SIPCOT – Irunkattukottai, SIPCOT – Sriperumbudur, SIPCOT – Oragadam, SIPCOT – Pillaipakkam, SIPCOT - Vallam Vadagal ✓ Due to this 27,695 ML of the fresh water is saved till date from 2020 and at			

the present rate of supply the quantity saved is equivalent to one month of water supply to 75 lakh population of the city. Tertiary Treatment using Ultrafiltration Plants -Recharging of lakes and reuse ✓ CMWSSB in continuing its efforts to augment supply of water through sustainable sources and also reuse the waste water for pollution abatement has made a detailed study with IIT Chennai and is working on the projects for use of tertiary treated water for recharging of lakes and to draw the water for supply through a water treatment plant near to the lake and the water distribution station. This aims at sustainable, decentralized source augmentation, ground water enhancement and pollution abatement. ✓ GoTN sanctioned two proposals of each 10 mld capacity for recycle, recharge and reuse of tertiary treated water from Nesapakkam STP at cost of Rs. 28.75 Cr to Porur lake and Water Treatment Plant and from Perungudi STP to Perungudi lake at a cost of Rs. 24.35 Cr. The work was awarded on 07.03.2019 for Nesapakkam TTUF and for Perungudi TTUF. ✓ Nesapakkam 10MLD TTUF – The treated water is supplied to Porur Lake for Recharging of urbanized lake and indirect reuse with a new water treatment plant near the lake – Work completed and the Plant is Commissioned. ✓ Perungudi 10MLD TTUF – The treated water is to be supplied to Perungudi Lake for Recharging of urbanized lakes and indirect reuse with a new water			

treatment plant near the lake – Work is in progress. ✓ Langs Garden 10MLD TTUF – The 10MLD capacity Modular Sewage Treatment Plant based on Moving Bed BioFilm Reactor Technology followed by Ultra Filtration at Langs Garden sewage pumping station is constructed with a project cost of Rs. 33.44 Crore under integrated Coovum River Eco restoration project. The plant construction works are completed, testing and trial commissioning are under progress and the treated water is to be supplied to Railways and Greater Chennai Corporation. ✓ Villivakkam 5 MLD TTUF - The Tamil Nadu Government has sanctioned 5 MLD capacity TTUF at a cost of 17.93 Crores vide G.O.(D) No.383, MAWS (MC1 Dept) Dt. 20.10.2022 for supplying the tertiary treated water to Villivakkam Lake for lake rejuvenation and recharging of ground water. The work has been tendered out and the completion period is 15 months after the award of the work. Revenue through recycle ✓ The product water from the TTRO plants is supplied to various Petro chemical industries and other industries in Manali, North Chennai and industries at the State Industries Promotion corporation of Tamil Nadu (SIPCOT) industrial parks in Sriperumbudur, Irungattukottai and Oragadam. The 46 MLD product water is supplied to the industries at the rate of Rs.80.00/KL in Manali and at Rs.65/KL to SIPCOT, which redistributes the			

water the industries in its industrial parks. ✓ The sale of the treated water has generated an income of Rs. 279.16 Cr for CMWSSB since 2020 and currently with the supply of TTRO water, CMWSSB earns an increased revenue of Rs.8.94 Cr per month. The sale secondary treated water to industries also yields a revenue of Rs.1.80 Cr per month to CMWSSB in Chennai. The Utilization of treated sewage at present (2022) is 13.00% and has been more than doubled than that in 2019 which was around 6% then. The total quantity of 79 ML treated and reused is with i) Supply of secondary treated water – 25.00 ML, ii) Supply of Tertiary treated water – 46.00 ML and iii) Tertiary Treated water for recharging of lakes and reuse - 8.00 ML. IMPROVEMENT OF EXISTING SEWERAGE SYSTEM IN THE PART OF OLD CHENNAI CITY OF AREA 174 SQ.KM OF CHENNAI CITY The Government of Tamil Nadu vide G.O. (MS) No. 256, MA & WS (Election) Dept. dt 26.12.2009 had issued orders for expanding Chennai city by annexing 42 Adjacent urban local bodies which included 9 Municipalities, 8 Town Panchayats and 25 Village Panchayats. The extent of the expanded Chennai City limit is now 426 Sq.km from the original area of 174 Sq.km. CMWSS Board is a statutory body which provides water supply and sewerage infrastructure facilities to the residents of Chennai city.			

The sewage generated from the residences of the city is collected through the network of sewage collection system. The sewerage system in the old city areas which includes Area – IV, V, VI, VIII, IX, X & XIII have been in existence for over 30 years. The capacity of the Gravity Main, Wells, Pumping Main and pumping equipments are inadequate to meet the present population requirements and hence, the sewerage system could not be operated under full efficiency. In addition to this, in most of the reaches the existing pipes are incrusted and thus the part of the existing Sewerage system requires renewal in the project area. Therefore, it is necessary to improve the existing Sewerage system in the project area for the effective disposal of sewage. It is proposed to study, analyse, plan, design entire sewerage system in the Core area of Chennai city i.e 174Sq.Km and also implementation of a full scale SCADA for the entire Sewerage System in the Chennai City of 426Sq.Km from Lift station to Pumping Station and Pumping Station to STP by undertaking a technical, financial, economic, environmental and social study, prioritized capital investment plan, detailed designs, drawings, cost estimates and bidding documents for planning and implementation. The Following are the major components of the project: a. Improvement works of Sewage Pumping Station / Lift Station and Collection System Network in the project area of 174Sq.Km b. Enhancing the adequacy of STP for disposal of sewage from the project area.			

c. To establish safe disposal of sewage as per CPHEEO. Providing / Rehabilitation / Revamping / Redesigning / Designing of the entire Collection System including Pumping mains, Pumping stations, etc. d. Enhancing the adequacy and efficiency of existing Pumps by replacement/additional Pump capacity. e. To control the odour level in the existing Sewage Pumping Station / Lift station by cost effective and environment friendly odour control measures/methodology. f. Introducing any novel technology for removing silt in the design of Collection system network / Manhole. g. Effecting innovative technologies which are practically implemented in sewerage projects. h. Establish the Central Monitoring SCADA system for Sewerage system operation & maintenance for the entire Chennai City of 426Sq.Km i. To ensure the safe disposal of sewage from collection system to Pumping station and in turn into Sewage Treatment Plants. j. Supplying and fixing suitable flow meter / measuring instrument to access the quantity of sewage pumped in each pumping station. DPRs to be submitted based on the catchment of STPs (comprising of Perungudi, Kodungaiyur, Koyambedu, Nesapakkam) and SCADA report. Inception report submitted and approved.			

➢ In the State of Tamil Nadu, there were 664 Urban Local Bodies (ULBs) now reorganized in 649 ULBs. The Government of Tamil Nadu has proposed to implement UGSS in all Municipal Corporation, AMRUT cities, District headquarters towns and some other towns of tourist and religious importance. The State has proposed to cover the remaining towns with Faecal sludge and Septage Management (FSSM) and appropriate grey water treatment facilities. **Under Ground Sewerage Schemes (UGSS)** 61 ULBs have functional underground sewerage systems, 10 ULBs have ongoing UGSS and in 8 ULBs UGSS schemes are sanctioned and awaiting for approval from bank, where STPs have been proposed in the revised used water action plan under SBM 2.0 The remaining 570 ULBs will be covered with grey and black water treatment facilities, of these 48 ULBs have functional FSTPs and 12 ULBs were sanctioned under SBM 2.0. on pilot basis for STP cum FSTP. The remaining 510 ULBs are proposed to be covered by STP cum FSTP and FSTP under SBM 2.0, either on cluster basis or on standalone basis and got approved from SHPC. **Faecal Sludge and Septage Management (FSSM)** ➢ Indiscriminate disposal of faecal sludge and septage in open environment and	**100%**		CMA has set itself an ambitious target for complete recycle and reuse by 2035. • At Present – 21.67% • 2025 - 50% • 2030 – 85% • 2035 – 100% State Government have come out with a policy on reuse of treated wastewater. The policy envisages establishment of wastewater grids to promote the use of treated water for industrial, agriculture or non-drinking purpose domestic use.

water bodies poses a great danger to the environment. Therefore, it is imperative to regulate the operation and movement of the lorries, trailers or any other vehicles used for decanting of septic tanks and cesspools and transportation of faecal sludge and septage to ensure safe disposal of the faecal sludge and septage. ➢ The Government of Tamil Nadu have recognized the importance of Faecal Sludge and Septage Management (FSSM) as a viable method of sanitation for smaller cities and town and outgrowths in metropolitan cities. In pursuance of National Policy on Faecal Sludge and Septage Management, to provide complete full cycle of sanitation in the local bodies, a comprehensive programme has been formulated, for regulating periodic cleaning of septic tanks and transportation, treatment and disposal of faecal sludge and septage. For that purposes, the laws governing the Municipal Corporations, Municipalities, Town Panchayats and Chennai Metropolitan Water Supply and Sewerage have been amended by the Tamil Nadu Municipal Laws and the Chennai Metropolitan Water Supply and Sewerage (Amendment) Act, 2022 (Tamil Nadu Act 34 of 2022). For violation of such provisions severe penalty have also been provided therein. ➢ Co-treatment of faecal sludge with sewage in underutilized Sewage Treatment Plants (STPs) in a cluster approach was suggested and decanting facility			

creation is initiated in 21 ULBs. **MOU signed for the sale of Secondary Treated Effluent Water (STEW) in the following ULBs:** ➢ Nagapattinam - 2.00MLD - M/s KVK Power for cooling purpose ➢ Dindugul - 5.00MLD - to maintain the TDS level of Tanners as well for Agro - forestry. ➢ Tirunelveli - 24.00MLD - Nanguneri SEZ for Industries ➢ Perambalur - Negotiation is under progress with MRF Industries for the sale of STEW of 3.00 MLD. ➢ Ramanathapuram - 3.00 MLD - NTC Infra ➢ Pollachi - 11.50 MLD - Agricultural use ➢ Coimbatore - 15.00 MLD - Agricultural use **MoU in pipeline ULBs** ➢ Arakkonam - 7.00 MLD - MRF Industrial use **Direct Agriculture Use** ➢ Chinnamannur - 3.00 MLD - Agricultural use Karur - 7.00 MLD - Agricultural use			

Thematic Area: 10. Status of CETPs/ETPs including performance

Thematic Area :3(X)	Status of CETPs/ETPs including performance:

Current Status - Jun- 2023	Desirable Level	Gap	Proposal for attending Gap
Compliance status of ETPs: No. of Industries which require ETP: 12776 No. of Industries having functional ETP: 12775 No. of Industries complying: 12720 No. of Industries non-complying: 55 Show cause notice issued: 3 Closure directions issued: 52 No of Industries against which action is under process/any other (prescribed): 0 No. of industries operating without ETP: 0 Show cause notice issued: 0 Closure Direction issued: 0	All ETPs to achieve the standards prescribed by the Board.	55 IETPs	Further action will be initiated on receipt of the reply for Show cause notice from the 3 IETPs units.
Compliance status of CETPs: (Jun-2023). No. of CETPs: 37 No. of CETPs complying: 31 No. of CETPs non-complying: 6 Show cause notice issued: 4 Closure directions issued: 1 No of CETPs against which action is under process/any other (prescribed): 1	All the CETPs to achieve the standards prescribed by the Board.	6 CETPs	Further action will be initiated on receipt of the reply for Show cause notice from the 4 CETPs.

Thematic Area: 11 Ground water extraction/contamination and recharge

Current Status	Desirable Level	Gap	Proposal for attending gap
Groundwater Extraction: Tamil Nadu State is underlain by diverse hydrogeological formations. Nearly 73% of the State is occupied by hard rocks, remaining 27% underlined by sedimentary formations which are mainly confined to the eastern part including the coastal tract. In the hard rock areas, groundwater is developed through dug wells tapping the weathered zone and dug cum bore wells and bore wells tap the deeper fractures down to a depth of 300 m. In semi consolidated and unconsolidated formation, shallow zones are tapped by filter points and shallow tube wells and deeper zones through deeper tube wells. The yields of open wells vary from 1 to 3 lps, whereas in dug wells tapping soft rocks including sedimentary formations, the yield is up to 10lps. The yield from unconsolidated and semi consolidated formations are in general 10 to 20 lps and also as high as 40 lps are also noticed at select places. The Ground water resources for the State have been assessed on firka wise. As per 2022 total annual Groundwater recharge of the State is 21.11 bcm and Annual extractable Ground Water resources as 19.09 bcm. The Annual Ground Water extraction is 14.43 bcm and Stage of Ground Water Extraction as 75.5%. As per Ground Water Resources Estimation Committee (GEC 2015) methodology, State Ground and Surface Water Resources Data Centre	To contain the GW exploitation and replenish Groundwater Level in Over exploited and Critical Areas with Artificial Recharge of Groundwater.		Draft of "Tamil Nadu Water Resources Act" was prepared and sent to Government.

Current Status	Desirable Level	Gap	Proposal for attending gap

(SG& SWRDC), Tharamani, Chennai has re-estimated the Ground Water Resources of Tamil Nadu State for 2022 with the Coordination of the Regional Director, Central Ground Water Board, South Eastern Coastal Region, Chennai.

The categorization as per the Re – Estimation of Dynamic Ground Water Resources of Tamil Nadu State -2022 reads as follows:

S.No	Categorisation based on extraction	No of Firkas
1	Over Exploited (More than 100%)	360
2	Critical (90% to 100%)	78
3	Semi Critical (70% to 90%)	231
4	Safe (Less than 70%)	463
5	Saline	34
TOTAL		**1166**

The categorization as per the Re – Estimation of Dynamic Ground Water Resources of Tamil Nadu State is being carried out once in two years. The comprehensive over all Reassessment of Dynamic Ground Water Resources of Tamil Nadu State as on March 2022 has been completed by State Ground and Surface Water Resources Data Centre in coordination with CGWB and Government order was issued vide G.O. (Ms). No.15, Water Resources (R1) Department, Dated 28.03.2023. The Ground Water Assessment - 2023 work is

Current Status	Desirable Level	Gap	Proposal for attending gap
in progress and report of Ground Water Assessment – 2023 has been presented in State level committee which was conducted on 20.09.2023. **Ground Water Contamination:** The State Ground and Surface Water Resources Data Centre (SG & SWRDC), WRD is collecting ground water samples from 2258 locations (Two samples per Firka) biannually i.e during pre (July) and Post (January) monsoon period of every year and a total of 4516 samples are being collected and analaysed in our Geochemical Laboratories for various physico chemical parameters. From the analytical data, it is inferred that, **Total Dissolved Solids (TDS)** exceeds the permissible limit in Chennai, Dindigul, Erode, Karur, Madurai, Nagapattinam, Namakkal, Perambalur, Pudukottai, Ramanathapuram, Salem, Sivagangai, Thanjavur, Thoothukudi, Trichy, Tiruppur, Tirunelveli, Vellore and Virudhunagar Districts. **Nitrarte** concentration exceeds the permissible limit in Coimbatore, Dharmapuri, Dindigul, Erode, Madurai, Namakkal, Nilgiri, Perambalur, Salem, Theni, Tenkasi, Trichy Thoothukudi, Tirunelveli, Tiruppur and Virudhunagar Districts. **Fluoride** concentration exceeds the permissible limit in Chengalpattu, Dharmapuri, Erode, Kancheepuram, Karur, Krishnagiri, Namakkal, Pudukottai, Salem, Trichy, Tiruppur and Thiruvallur Districts.	WQ paremeters Permissible limits for Drinking purpose TDS: <2000 mg/l Nitrate: <45 mg/l Fluoride: <1.5 mg/l		Water quality monitoring is a continuous process. Every year "Water Quality Year Book" the year wise water quality is being prepared by SG & SWRDC, WRD and the same is communicated to all the District Collectors and line Departments like TWAD Board, TNPCB, CGWB, for further action. **During the month of July 2023, around 2258 nos. of samples have been collected and samples are being analysed in the four Water Quality Labs at Chennai, Trichy, Madurai and Pollachi.**

Current Status	Desirable Level	Gap	Proposal for attending gap

The distribution of ground water quality of Tamil Nadu from 2011 to 2021 in terms of TDS percentage:

Year	Good	Moderate	Poor
2011	30	63	7
2012	36	57	7
2013	31	60	9
2014	34	59	7
2015	34	59	7
2016	33	59	8
2017	32	60	8
2018	34	59	7
2019	31	61	8
2020	35	58	7
2021	38	56	6

On observing the water quality details of from 2011 to 2021 it is inferred that nearly 6 to 9% of the wells of Tamil Nadu is having poor quality water due to contamination either by geogenic (or) by man-made.

Current Status	Desirable Level	Gap	Proposal for attending gap
Groundwater Recharge Artificial Recharge Measures like Check dams across rivers, installing recharge shafts in tanks and the river beds were carried out under the various projects under WRD like. Master Plan for Artificial Recharge Structures (MPARS) (153 Strucures). NABARD schemes (11 Check Dams). WB Aided Irrigated Agriculture Modernisation and Water-Bodies Restoration and Management Project, (IAMWARM) (56 Recharge Wells). TNIAM (Irrigated Agriculture Modernisation) Project TNIAMP - I – (42 Recharge wells) TNIAMP – Phase –II – (37 Recharge wells) TNIAMP – Phase –III – (16 Recharge wells) Under Jal Shakti Abhiyan – (status from 01.07.2023 to 25.09.2023) (Source - JSA Portal) Reuse and Recharge Structure –77660 Nos. Water Conservation and Rain Water Harvesting – 37164 Nos.			Also few Artificial Recharge Structures are now proposed & and some are under execution. **TNIAMP- Phase I** For Grond Water component Rs. 15.907 Crore was allotted for the construction of 42 Artificial Recharge Wells in 12 sub basins and covers 10 Districts of Cuddalore, Villupuram, Kancheepuram, Trichy, Thanjavur, Erode Dindigul, Madurai, Theni, Tirunelveli for the Ground Water component. 42 Nos. of Recharge wells had completed. Under **TNIAMP- Phase II** (15 crore – Out of 37 Recharge Wells, 25 Nos. Recharge wells have been completed and balance works

Current Status	Desirable Level	Gap	Proposal for attending gap

Rejuvenation of Water Bodies

The following works have been in this regard

a)Water Resources Department

1. Kudimaramath

Details of Irrigation Structures under taken through Kudimaramathu

Sl. No.	Year	Tanks		Anicut		Canals		Chain canals		Other works		Total	
		Nos	Estimate Amount	Nos	Estimate Amount	Nos	Estimate Amount	Nos	Estimate Amount	Nos	Estimate Amount	Nos	Estimate Amount
1	2016-17	818	5820.73	27	144.47	326	1708.48	196	1171.72	152	1154.60	1519	10000.00
2	2017-18	974	24991.60	29	703.20	321	4413.28	107	1694.29	92	1365.53	1523	33167.90
3	2019-20	1099	35585.70	48	2191.65	316	5986.85	187	3095.05	179	3109.25	1829	49968.50
4	2020-21	643	29235.88	46	2317.90	366	8571.10	132	4487.50	220	5622.07	1407	50234.45
	Total	3534	95633.91	150	5357.22	1329	20679.71	622	10448.56	643	11251.45	6278	143370.85

2. Repair, Renovation and Restoration (RRR) of Water Bodies Project

2015-16 - 104 Nos. of tanks have been renovated.

2017-18 - 49 Nos. of tanks have been renovated.

2020- 21 - 83 tanks renovation – works completed physically.

2021- 22 - 9 tanks renovation – works under progress.

2021-22 – 115 tanks renovation – 50 works completed & balance works under progress

are in progress.

TNIAMP- Phase III

Under TNIAMP Phase- III, the work of construction of 16 Recharge wells in 5 Sub basins namely Cheyyar, Chinnar, Manimukthanadhi, Vegavathy and Marudhaiyar for an amount of Rs.7.08 Crore falling in the districts of Tiruvannamalai, Dharmapuri, Krishnagiri, Kallakurichi, Ranipet and Perambalur. 14 Nos. of Recharge wells work in progress and 02 Nos. to be started (Due to water stagnation).

CM Announcement Schemes 60.19 crore - 751 Artificial Recharge shaft and 154 Monitoring Piezometers (completed). 125 Artificial Recharge wells and 9 Artificial Recharge shafts

<table>
<tr><th>Current Status</th><th>Desirable Level</th><th>Gap</th><th>Proposal for attending gap</th></tr>
<tr><td>2022-23 – 85 tanks renovation – 2 works completed & balance works under progress

2022-23 – 100 tanks renovation – 4 works completed & balance works under progress

2022-23 – 100 tanks renovation – works to be taken up

3. TNIAMP

<table>
<tr><th colspan="5">Details of works taken under TN IAM Project</th></tr>
<tr><th>Sl. No.</th><th>Phase</th><th>As Amount (Rs in Lakh)</th><th>No.of Tanks</th><th>year</th></tr>
<tr><td>1</td><td>RAF & Phase I</td><td>76943.03</td><td>1382</td><td>RAF: 2017-2018
Phase I: 2017-2018</td></tr>
<tr><td>2</td><td>Phase II</td><td>63275.07</td><td>906</td><td>Phase II: 2019-2020</td></tr>
<tr><td>3</td><td>Phase III</td><td>18195.46</td><td>329</td><td>Phase III: 2021-2022</td></tr>
<tr><td>4</td><td>Phase IV</td><td>34619.06</td><td>12</td><td>Administrative sanction has been obtained for 9 Sub basins. Phase IV: 2022-2023 (8 Sub basins) & 2023 - 24 (1 Sub basin)</td></tr>
<tr><td colspan="2">TNIAMP Total</td><td>193032.62</td><td>2629</td><td></td></tr>
</table>

b) Rural Development and Panchayat Raj Department
Total 1725 No. of water bodies renovated by Rural Development and Panchayat Raj Department.</td><td></td><td></td><td>(under progress).
Comprehensive Flood Mitigation Project in coastal Districts of Tamil Nadu (139 Recharge wells) mainly focusing on Over exploited/Critical Areas and major aquifers (Proposal stage).

Nadanthai Vaazhi Cauvery (49.05 crore) (Proposal stage).</td></tr>
</table>

Thematic Area: 12. Air Pollution including Noise Pollution

Thematic Area :3(X)	Air Pollution including Noise Pollution		
Current Status	Desirable Level	Gap	Proposal for attending gap
(1). As per the directions of the Hon'ble National green Tribunal (NGT) Noise mapping for the cities of Chennai, Coimbatore and Madurai are under preparation. (2). The procurement of Noise monitoring instruments and its usage by the Police department to address noise related complaints.	Identification of hot spots and preparation of mitigation plan for control of noise pollution by carrying out the Noise mapping in cities of Chennai, Madurai and Coimbatore. The Noise mapping for 3 cities to be completed.	Hot spots of noise pollution has been identified based on the noise monitoring survey conducted in the cities of Chennai, Madurai and Coimbatore	The noise level mapping study at the Chennai, Coimbatore and Madurai cities were completed. The TNPCB has also given guidance to the Police Department on the procurement of Noise monitoring instruments. As per the NGT directions a Committee has been constituted with the members comprising from Police Department and TNPCB. On 9.1.2020, reputed firms were asked to demo their noise monitoring equipments. After ascertaining the requirement from field units, a proposal was sent to the Government from the police department for necessary administrative and financial sanction for the procurement of noise monitoring devices. Under fifteenth finance commission XV-FC 2020-21 for the air quality improvement in the million plus cities of Tamil Nadu, Greater Chennai Corporation has allocated a fund of Rs 1,85,50,000/- to Police Department for the procurement of 106 Noise monitoring instruments (Letter No C.E (GI)C.No:A2/0293/2021 dated 30.06.2021) For the installation of Noise limiters in the Noise making instruments/equipments necessary proposal has been sent to the Govt for the issue of notification.

Thematic Area: 13. Illegal Sand Mining

I. Department of Geology and Mining

a) **Brief history on sand mining:-** As far as mining and sale of sand is concerned, it is informed that the Government in Public Works Department was entrusted for carrying out mining operations for sand and sale of sand from the month of October 2003 onwards vide G.O.Ms.No.95 Industries Department dated 01.10.2003.

b) **Seizure of vehicles for last five years:-** The number of vehicles seized for illegal transport of sand, penalty collected, FIR registered & cases booked under Goondas Act for the quarter ending March 2023 is furnished below:

Details of Number of Vehicles Seized and Penalty Collected			
Sl.No.	**Month**	**No. of Vehicles Seized**	**Penalty Collected (in Rs.)**
1	upto March - 2023	12,837	1,78,73,827
2	April -2023	164	7,610
3	May -2023	154	9,874
4	June -2023	209	13,500
TOTAL		13,364	1,79,04,811

c) **Prevention of Illegal Mining:-**

i) The District Level Task Force and Taluk Level Task Forces are functioning under the Chairmanship of the District Collectors and the Tahsildars respectively and taking action on the compliant petitions received from various quarters on illegal mining and transportation of minerals.

ii) Drone Technology is proposed to monitor illicit quarrying other than sand. Drone Technology will be pressed into service in association with Madras Institute of Technology (MIT) for monitoring illegal quarrying of minerals other than Sand.

iii) Mining Surveillance System:- The Mining Surveillance System is being used for monitoring activities within 500 mts. of mining leases granted for major mineral and if any unlawful activities are noticed in the area within a radial distance of 500 mts. from the lease granted area it will be recorded in the form of "triggers" and the same will be forwarded to the Department of Geology and Mining of the State concern for physical verification and necessary action.

II. Public Works Department

Tamil Nadu Government, in public interest issued amendment to the Tamil Nadu Minor Mineral Concession Rules, 1959, in G.O.(Ms).No.95, dated 01.10.2003 by introduction of Rule 38-A of the Tamil Nadu Minor Mineral Concession Rules, 1959. From 02.10.2003, Public Works Department sells sand from river beds to Public and consumers.

In the G.O. Ms.No.451, Public Works (W.Spl.1) Department, Dated 03.10.2003, the Government ordered that the Water Resources Department of the Public Works Department is operating sand quarries in all the river systems of Tamil Nadu since 03.10.2003.

REFORMS IN OPERATION OF SAND QUARRYING

- A paradigm shift in the mode of sand quarrying operations happened during April-May 2017, when several revolutionary and reformatory measures were infused into this sector complying with the "Sustainable Sand Mining Management Guidelines,2016".
- A specialized mobile and web application, 'TN Sand' came into existence where the public and lorry owners made an online booking for their load of sand from 01.07.2017. From 18.07.2017 online payment facilities are made available. This mode of sale accounted for each unit of sand which ensures controlled mining without exceeding the approved quantity.
- The introduction of online sales accounted for each unit of sand and thus the quantity to be mined from each quarry was monitored online.

- In order to weed out the vehicles with fake permits and registration numbers, a State wide Sand Transport Vehicle Registration Drive was conducted in six phases wherein the Insurance, Permit and FC of the sand transport vehicles were checked by the officials from RTO and counter checked with the VAHAAN web site of the Transport Department.
- Based on the order of booking, schedule is prepared and communicated to the concerned field officers for loading the sand to the registered vehicle. The schedule contains the Lorry Chasis Number, Registration Number and Engine Number by which the field officers are able to check and seize the vehicle/lorries containing fictitious number plates. Such seized vehicles are blacklisted from TNsand and their registration are cancelled preventing them from further loading of sand from the Government Depots.
- The four boundaries of the quarries are now being demarcated with stone pillars at 50m intervals using GPS and Total Stations giving no room for any doubt in the calculation of the depth and area of quarry.
- The depot system of sand sale is now being implemented which prevents the movement of private vehicles inside the river bed and to safeguard the eco system of river. The waiting time outside the sand depots have been done away with, and all scheduled lorries pick up sand on the date specified. SMS/email is sent to the customer 30 hours before the scheduled time of pick-up to prevent unnecessary waiting outside the sand depots.
- The quarries and depots are monitored through the CCTVs installed at these places by the Control Room established at Chennai in the Project Directorate. A robust Customer Care system is also in operation in the Control Room to redress the grievances of the public.
- Sand will be loaded in the quarries in the PWD tendered GPS fitted vehicles and online transmit permit will be issued to the transporting vehicles to transport sand from the quarry to depots. The movement of the PWD tendered vehicles will be monitored using GPS equipment fitted on to the vehicle.
- A 'shunting mobile application' has also been developed for the purpose of accounting for the quantum of sand lifted from the quarries and transported to the depots, with an online authentication at the depots also.

- The Government have constituted a District Level Task Force Committee under the Chairmanship of District Collector in the G.O.(Ms).No. 135, Industries (MMA.1) Department, dated 13.11.2009 to collect /review the information/cases relating to the illegal mining/quarrying within their jurisdictions and review the work of Taluk Level Task Forces.
- The Taluk Level Task Force, convened by the Tahsildar, the District Level Task Force, chaired by the District Collector and the State Appellate Forum act on the complaints received, if any, on illegal sand quarrying and take strict remedial measures to rectify the same in a time bound manner. In addition, as per the directions of the Hon'ble Madurai Bench of Madras High Court, a Monitoring Committee comprising experts from IIT, Anna University and Hydro Geologist have been formed to efficiently monitor the sand quarry activities and ensure that it operates in an ecologically and environmentally sustainable manner.
- The Public Works Department prepares the mining plan by Recognised Qualified Person (RQP) for getting Environmental Clearance from State Level Environmental Impact Assessment Authority(SEIAA)
- A law enforcement team comprising officials from Revenue, Police etc., is working round the clock to curb illegal mining The PWD has also developed a mobile application, 'TN Sand Investigator App' for the use of enforcement officials from revenue, police and transport department to authenticate the online permits and also to identify fake or manipulated permits.
- In the G.O(Ms)No.62, Home, Prohibition and Excise (XVI) Department, dated 10.10.2018, the Government have issues orders keen to prevent "sand theft" and "sand smuggling" with the effective and prompt action by the Government Officials and many instructions have been issued to the concerned by the Government in this regard from time to time. The need of the hour is to maintain the vast fertile eco system of this State in the stable form by curtailing all types of sand smuggling with the services of the Government Officials. In view of the position set out above the Government officials and police officials concerned are bound to prevent such offences.
- Overall, due to the continuous efforts and effective measures taken by the Government, it is ensured that sand quarrying operations are operated in an ecologically and environmentally sustainable manner complying with the existing rules and guidelines.

Thematic Area: 14. Rejuvenation of Water bodies

(Prepared as per the direction of NGT in M.P.26/2019 of O.A 325/2015 dated 10.05.2019)

1. Preamble

Tamil Nadu is the most urbanized state in India with 48.5% of its population living in urban areas. The projected percentage of the urban population for Tamil Nadu for the year 2030 has been estimated at 67% which will be the highest in the country. Even with such rapid urbanisation, the state is at the forefront in providing urban amenities to its citizens. In order to sustain this status, attention needs to be focused in providing water supply to the present generation and to preserve the water source to the future generation.

In this scenario, there can be no dispute that the water bodies play significant role in recharge of ground water, prevention of soil erosion and harvesting rain water. Most of the gains registered by the State were due to their restoration of surface water bodies, watershed development activities and rural water supply provision.

Lakes and ponds are an intrinsic part of the eco system. A lake or pond is the Water Body which holds certain volume of water generally in all seasons of the year. Lakes and ponds have traditionally served the function of meeting water requirements of the people for drinking, household uses like washing, for agriculture, fishing and also for religious and cultural purposes. Apart from these functions, which involve direct use of the lake water, lakes, ponds are also known to recharge groundwater, channelize water flow to prevent water logging and flooding. Lakes are also host to a wide variety of flora and fauna. Urban Water Bodies are a very important feature in the landscape. They are vital in easing out the hydrological severe conditions like drought and floods; they influence the micro-climate as well as enhance the aesthetic beauty of the landscape and offer various recreational opportunities. The Water Bodies in urban areas provide a diversity of values and uses ranging from ecological goods and services to direct production values. These are essentially relevant social benefits. Therefore, the need to initiate efforts to restore, conserve, manage and maintain the lakes and ponds as an inseparable part of the whole ecosystem cannot be undermined.

1.1 Overview on Water Resources in Tamilnadu

Tamil Nadu constitutes 4 percent of India's land area and is inhabited by 6 percent of India's population, but has only 2.5 percent of India's water resources. The demand for water in Tamil Nadu is increasing at a fast rate both due to increasing population and also due to larger per capita needs triggered by economic growth. The per capita availability of water resources however, is just 900 cubic meters when compared to the national average of 2,200 cubic meters. Agriculture is the largest consumer of water in the State using 75 per cent of the State's water resources.

The State is heavily dependent on monsoon rains. The annual average rainfall is around 930 mm (47 percent during the north east monsoon, 35 percent during the south west monsoon, 14 percent in the summer and 4 percent in the winter).

There are 17 major river basins in the State with 61 reservoirs and about 41,948 tanks. The utilizable groundwater recharge is 22,423 MCM. The current level of utilisation expressed as net ground water draft of 13.558 MCM is about 60 per cent of the available recharge, while 8875 MCM (40 per cent) is the balance available for use.

1.2 Rain Water Harvesting scheme

Tamil Nadu stands as an Pioneer State in strictly implementing the Rain water harvesting scheme. Due to the successful implementation of the scheme during the years 2001-2006, the ground water table had considerably increased in all corporation and Municipal areas.

To begin with, the implementation of the scheme was initiated as per G.O.138, MA&WS department, dated 11.2.2002. Further, to implement the scheme in a effective manner, a legal perspective was added vide Tami Nadu Government Law 4/2003 and it was notified in Government gazette dated 19.7.2003 as Part IV- section 2.

Intensive and widespread public awareness campaigns through rallies, dramas and advertisements are organised for people to emphasise and ensure that all the buildings are compulsorily provided with Rain water harvesting structures. Provisions have also made to disconnect water supply connection to the buildings without Rain water harvesting structures.

For the new buildings that are under construction, planning permission is given only to those buildings which have made provisions of Rain water harvesting structure and this is being enforced strictly. Also, caution deposit amount is collected to ensure the provision of Rain water harvesting structures in new buildings.

As per rule 63 of the Tamil Nadu Combined Development and Common Building Rules 2019 published vide G.O.18, MAWS Department dated 6.2.2019, provisions have been made to ensure that Rain water harvesting structure is provided in all the buildings. Besides this, illustrations for developing the Rain water harvesting infrastructures have been enclosed as Annexure-XXII in the Tamil Nadu Combined Development and Common Building Rules 2019.

Of the total no.of 47.39 lakh buildings existing in 20 Corporations (Excluding GCC) and 138 Municipalities, RWH structure has been provided in 43.31 lakh buildings(43.31 lakhs nos of Private buildings and including 37714 nos of Government Buildings). All possible efforts

are being taken to implement water harvesting techniques in all the water bodies. Under Jal Shakti Abhiyan by the Government of India major thrust is being given to creation and maintenance of Rain Water Harvesting structures before the onset of South West Monsoon.

2. Comprehensive Action Plan on Restoration of Water Bodies

The Government of Tamil Nadu is taking continuous effort to protect the water bodies to sustain the ground water resource to fulfill the water requirement of present generation and future generation. The Honorable National Green Tribunal Court, Delhi also emphasizs the need of restoration of water bodies in view of the depletion of ground water sources in all over India and directed all the State and UT to submit Action Plan on Restoration of Water Bodies (vide NGT Order dated 10.05.2019 in M.A.No. 26/2019 in OA.No. 325 of 2015) to CPCB within the period of three month. In compliance to the NGT order the Central Pollution Control Board published the indicative Guidelines for Restoration of Water Bodies in June 2019.

The Government of Tamil Nadu has already taken initiatives to conduct survey to map all the minor irrigation tanks with the support of Government of India and the survey for mapping is in progress. It is planned to use the survey results for mapping the minor irrigation water bodies, and planned to designate the best use of water bodies by conducting water sample test and by conducting the reconnaissance survey to overcome the influence of Sewage disposal, Industrial effluent disposal, Solid Waste, Plastic Waste and Construction Debris disposal. Accordingly a comprehensive Action Plan is proposed for the effective and earlier completion of Restoration of Water bodies in Tamil Nadu.

3. Status report on Action taken to preserve the water bodies

As a progressive State, The Government of Tamilnadu takes effort to rejuvenate the water bodies periodically, as well as amend the required acts in time to Time. Total available 900 048 Numbers of water bodies are being maintained by the Public works department(PWD), Rural Development(RD) , Hindu Religious and Charitable Endowment department (HR & CE), Municipal Administration department (DMA) Greater Chennai Corporation (GCC) and Commissionerate of Town Panchayats (CTP).The details are tabulated:

Department / Owners	Number of water bodies	Total Numbers of water bodies Rejuvenated		Total Number water bodies under rejuvenation	Total Number water bodies to be taken for rejuvenation
		Status as on 30.06.2023	Status upto 30.09.2023	Status as on 30.09.2023	
Greater Chennai Corporation	210	186	186	17	7

Department / Owners	Number of water bodies	Total Numbers of water bodies Rejuvenated		Total Number water bodies under rejuvenation	Total Number water bodies to be taken for rejuvenation
		Status as on 30.06.2023	Status upto 30.09.2023	Status as on 30.09.2023	
Directorate of Municipal Administration	739	289	306	222	211
Directorate of Town Panchayats	2212	1499	1499	248	465
Rural Development and Panchayat raj Department	91819	34115	37493	0	54326
Public Works Department	14341	5340	5340	1095	7906
Hindu Religious and Charitable Endowment Department	2359	2198	2205	9	145
Total	**111680**	**43627**	**47029**	**1591**	**63060**

The actions taken by various Departments to restore, rejuvenate and maintain on sustainable manner are highlighted.

*22051 – Minor Irrigation, 69768 –Ponds and Oorni

3.1 Greater Chennai Corporation

Greater Chennai Corporation has identified 210 water bodies in its jurisdiction which are under its own control. Out of these, restoration of 186 water bodies have been completed at an amount of Rs.102 crore under Chennai Smart City fund, CMCDM fund and CSR fund.The restoration works carried out, includes widening of the tank and deepening of the tank, bund formation, Toe wall , revetment, inlet and outlet arrangements, walkway and plantation.

The Restoration and Rejuvenation of 12 water bodies are in progress. During execution of the work the illegal sewer connection let into the tank are plugged and the works are in progress. Restoration of Villivakkam tank is being carried out in 25 acres at a cost of Rs.25 Crore. The storage capacity of the Villivakkam tank will be increased five times. The Restoration and Rejuvenation of 2 water bodies are proposed to be taken up in Chenni 2.0 scheme..

Commissioner, Greater Chennai Corporation has conducted a meeting with major corporate companies and welfare organizations for fund tie up for restoration of the balance 6 water bodies through CSR fund.

So far totally 4061 families have been identified as encroachers in the ponds/lakes. Action is being taken for resettlement and rehabilitation of these families Enumeration and biometric survey of these families is in progress. With this all 210 ponds will get restored maximum over a period of 12 months.

3.2 Chennai Rivers Restoration Trust

Chennai Rivers Restoration Trust has undertaken both wetland and water body restoration projects.

INTEGRATED COOUM RIVER ECO-RESTORATION PROJECT.

The Government of Tamil Nadu had granted Administrative Sanction of Rs.604.77 crores for implementation of the activities in the first phase of restoration of the Cooum river and works commenced in September, 2015.

All the line departments have commenced the execution of the sub-projects entrusted with them, viz., Desilting and river widening by Public Works Department; Solid waste removal, fencing, boom deployment and developing parks by the Greater Chennai Corporation; Removal of solid waste and fencing along the banks by Commissionerate of Municipal Administration, Directorate of Town Panchayats and Directorate of Rural Development and Panchayat Raj in their respective areas; Laying of interceptor pipelines & installing modular sewage treatment plants by Chennai Metropolitan Water Supply and Sewerage Board; Resettlement & Rehabilitation of Project Affected Families (PAFs) by the Tamil Nadu Slum Clearance Board and are under various stages of progress and the status of the progress as on June 2022 is detailed below:

Under Integrated Cooum River Eco restoration Project, desilting has been completed thus far for a length of 28.6 km out of the total 29.5 km and the formation of baby canal has been completed fully for 17.66 km. Thus far, 109517 MT of debris and garbage have been cleared from the banks and the work is fully completed by GCC, DMA & DRD. Fencing work has been fully completed for a length of 26.6 km out of a total length of 36.62 km. Out of a total identified 14257 Project Affected Families (PAFs) within the river boundary, 13056 PAFs have thus far been resettled. Regarding plugging of outfalls, out of 10 packages under Interception and Diversion pipelines, I&D - 9 packages – Nine completed; Nerkundram UGSS – work in progress – expected to be completed by March, 2023. Modular STPs – 2 Packages – One completed and one

nearing completion (expected to be completed by August 2022); 1 TTUF (Tertiary Treatment Ultra Filtration) – work in progress and is expected to be completed by December 2022.

In the Adyar River Restoration Project from Origin to Mouth, the status of the progress as on June 2022 is detailed below:

Under this project, desilting the river has been completed for a length of 14.07 km out of 16.04 km and construction of flood protection wall completed for 1.556 km fully. Fencing has been completed for a length of 13.11 km out of 24.67 km by GCC, 0.3 km out of 1.52 km by DMA, 5.99 km out of 13.59 km by CTP and by 17.64 km out of 35.642 km by DRD. Park work near Kotturpuram 100% completed. 42429 saplings planted from Thiru. Vi. Ka Bridge to Kotturpuram Bridge along banks of Adyar River and plantation work started Airport runway to Nandambakkam Bridge (400 plants planted). Thus far, 29,860 MT out of 84,887 MT of debris and garbage have been cleared from the banks by GCC, DMA & DRD. Work on beautification of 4 bridges and deployment of 3 booms fully completed. Regarding plugging of outfalls and Modular STP, 6 packages have been fully completed and work is in progress for four packages. (I&D - 2 packages and Modular STPs – 2 work in progress). Out of 9,539 Project Affected Families (PAFs) totally identified within the river boundary, 4,462 PAFs have thus far been resettled.

3.3 Directorate of Municipal Administration

There are 20 Corporations (except Chennai Corporation) and 138 Municipalities being administered with 739 municipal owned water bodies across 37 districts. There are 1989 water bodies located within the Municipal/Corporations limit and are being maintained by the concerned Departments. Of the 739 numbers of Municipal owned water bodies, 289 no of water bodies have been restored by the concerned urban local bodies at a total estimated cost of Rs. 60 crore with restoration activities such as De-silting, De-weeding and strengthening of bunds etc., to receive the water during rainy season and to preserve it for recharging the ground water storage as Rain Water Harvesting Structures. Under Smart City Mission, 8 lakes in Coimbatore Corporation have been taken up for rejuvenation at an estimated cost of Rs. 353.90 crore,one number of waterbodies completed and the remaining works are in progress. In this connection about 12500 encroachments have been identified of which 10500 encroachment have been cleared and their families have been rehabilitated in the 14 slum clearance housing colonies. Further in Salem Corporation two ponds have been taken up for restoration at an estimated cost of Rs. 23.19 crore under Smart City Mission and the works are in progress. In Thanjavur Corporation four ponds have been taken up for restoration at an estimated cost of Rs. 15.59 crore under Smart City Mission and the works are completed in two ponds. In balance two ponds, works are in progress.

Under the Kfw fund, 30 water bodies have been taken up for rejuvenation in 5 (Pattukottai ,Pudhukotai, Nagapattinam, Ariyalur and sattur) urban local bodies at the cost of Rs.38 crore and in Erode Corporation water bodies rejunevation is taken under Kfw at an estimated cost of Rs.5.95 cr.

Under Tamilnadu Sustainable Urban Development Programme, 2 water bodies in Pallavapram Municipality has been taken for rejuvenation at an estimated cost of Rs. 14.98 crore and the works are completed.

Under KNMT -2021-22, 90 nos of waterbodies taken up to the estimate cost of Rs 103 crore, under KNMT 2022-23, 22 nos of water bodies taken up at an estimate cost of Rs 20.00 crore and also 4 no of water bodies (Kodaikanal Tiruchengode & Hosur) has been taken up for restoration under CGF 2021-22 to the estimate cost of Rs 31.54 crore. AMRUT 2.0 -61 nos water bodies taken up and implementation works going on various stages.

3.4 Commissionerate of Town Panchayats

There are 2212 number of water bodies belongs to the total of 490 Town Panchayats in 37 Districts, out of which 1499 water bodies have been restored by the concerned Urban Local Bodies in the last five years. These water bodies are restored with basic restoration activities such as desilting, de-weeding and strengthening of bunds etc to receive the water during rainy season and to preserve it for recharging the ground water storage as Rain Water Harvesting structures. Presently 465 water bodies have been takenup for restoration under various schemes out of which 89 water bodies have been completed and the remaining 350 water bodies are in progress. Balance 591 water bodies will be restored in phased manner in due course.

3.5 Rural Development and Panchayat raj Department

Owner	No.of water bodies available	No. of water bodies Rejuvenated in the past five years
Rural Development and Panchayat Raj Department (RD & PR)	91,819	37,493

The Rural Development Department has conducted field survey to assess the number of water bodies available under the control of Rural Development Department. The Rural Development Department is now having **22,051** numbers of Minor irrigation tank and **69,768** numbers of Ponds &Ooranies across 37 districts. Of the **91,819** numbers of water bodies, 1200 water bodies have been restored at an

estimated cost of Rs.300 crore under Tamil Nadu Village Habitations Improvement (THAI)-II Scheme in the year 2016-17 and only partial restoration has been done using unskilled manual labour for the 50,796 MI Tanks, Ponds and Ooranies at a total expenditure of Rs.6339.49 crore was paid as wages to the MGNREGS workers in the past 5 years.

Under Kudimaramathu Scheme for the year 2019-2020, Rural Development Department was sanctioned to restore/renovate 5,000 Minor Irrigation tanks and 25,052 ponds/Ooranies under State funds to the tune of Rs.500 Crores in convergence with MGNREGS, wherein de-silting and deepening of the water bodies and strengthening of bunds has been done by engaging machineries and the reconstruction of appurtenances like Inlets, outlets, sluices, surplus weirs etc., has been done under MGNREGS, to the tune of Rs.750 Crores.

Under Kudimaramathu Scheme, **28,623**water bodies consisting of **4,984** Minor Irrigation tanks and **23,639** Ponds and Ooranieshas been rejuvenated.

Under State Finance Commission Grant (SFC) 2019-20, **3312** water bodies consisting of 266 M.I Tank works and 3,046 Ponds &Ooranies works were completed.

Under Re-implementation of Anaithu Grama Anna Marumalarchi Thittam-II **-2003, 1396 and 274** water bodies were renovated during the year 2021-22, 2022-23 and 2023-24 respectively. Under Mahatma Gandhi National Rural Employment Guarantee Scheme (AmritSarovar)**685** water bodies were renovated in the year 2022-23.

3.7 Hindu Religious and Charitable Endowment Department

Temple tanks have been an integral part of ancient Tamil settlements. There are 2,359 tanks maintained by the temples under the control of the HR&CE Department. The temple tanks are being protected by clearing the encroachments in and around the temple tanks, constructing compound wall, de-silting the tanks, relaying the steps of the tanks and by providing facility for the inflow of rainwater and overflow channels for surplus water.

Out of these 2,359 tanks, 1068 tanks were identified for renovation while remaining 1,291 tanks are in good conditions. During the past 8 years this department has repaired, renovated and rejuvenated 849 temple tanks at a cost of Rs.4.69 crores. The Encroachment on temple tanks

dumping of garbage and debris, illegal settlement on temple tanks bunds, blockage of inflow of water, mixing of sewage water are some of the hurdles that need to be overcome while taking up restoration and renovation of temple tanks, Further 58 water bodies completed in the past six months. At present 9 water bodies taken for rejuvenation and in progress.

3.8 Rejuvenation of polluted river stretches

Tamil Nadu has identified Six River stretches namely Sarabanga, Thirumanimutharu, Vasista, Cauvery Bhavani & Thamirabarani based on the level of BOD Priority I to V has been fixed.

As per the Hon'ble NGT (PB) directions to prepare action plans to bring all the polluted river stretches to be fit at least for bathing purposes. River Rejuvenation Committee (RRC) was constituted in Tamil Nadu vide G.O.(D) No.372 dated 26.12.2018 comprising with the members Industries Commissioner, Commissioner Municipal Administration, Director of Environment and Member Secretary of Tamil Nadu Pollution Control Board.

The revised action plans for the four polluted river stretches in priority-I (River Sarabanga, Vasista, Thirumanimutharu & Cauvery) were prepared including gap analysis and submitted to CPCB, Delhi on 18.04.2019 after the approval of the River Rejuvenation Committee (RRC) and the same was recommended with conditions by the CPCB Task Team in the 5th review meeting held on 24.04.2019. Also, the revised action plans for the two polluted river stretches in priority-IV & V (River Bhavani & Thamirabarani) were also prepared and submitted to CPCB, Delhi on 29.05.2019 before the Hon'ble NGT (PB) and the action plan for Priority-I & IV was approved by CPCB. The Action Taken Report on these six river stretches has been submitted to TNPCB on monthly basis and National Mission for clean Ganga is conducting Central Monitoring Committee Meeting on every month.

TIME FRAME /Action Plan for Rejuvenation of Water bodies - Phase I Data Collection and Mapping		
Collection of Historical data, Geographical data, Geological data, pollution & contamination data in respect of sewage disposal, industrial effluent disposal, solid waste, plastic, e waste, Hazardous waste, C& D waste disposal and mapping the data for all the water bodies	Water bodies wise the (1) Location with GPS(2) Area & Dimension (3) ownership (4) allocation of unique identification number (5) (6)details of habit,(7) details of inflow / outflow, evaporation, flooding frequency	Geographical data for 1993 against 2359 collected. Sewage disposal contamination data is being collected & will be completed within 30.04.2022 (due to pandemic situation the process cannot be completed within due period) Mapping Process is under progress and will be completed within 31.03.2023.
TIME FRAME /Action Plan for Rejuvenation of Water bodies - Phase II Gap Analysis		
Declaring the Designated Best use of water bodies and ascertain the quality of water as per standard and survey to identify the source of pollution and prepare long term preventive measures through Detailed Gap analysis on sewage management , industrial effluent management , and Solid waste Management and other associated issues	(8) Presences of major plant and animal communities, (9) Designated Use of Pond or Lake (Drinking /Irrigation/ Aqua culture/ Tourism/Protected Bio Diversity (10) Major outfall details (11) Physical conditions of the water body 912 Water quality (13) Status of sewage management in the Catchment area (14) Status of Industrial Effluent management in the Catchment area (15) Status of solid waste, plastic waste , C& D waste management in the Catchment area and water body.	
TIME FRAME /Action Plan for Rejuvenation of Water bodies. - Phase III & Phase IV Preparation of Detailed Project Report & Implementation		
Preparation of Detailed Project Report to Restoration the water bodies by preventing the entry of sewage in to water bodies to increase the capacity of tank, strengthen the bund and improving the other amenities based on the local requirement, Removal of Encroachment , flood control measures , tendering , execution, and good governance .	(16) Measures taken by preparing DPR , Estimate Preparation , Tendering and Execution of work	So far 42404 numbers of water bodies have been restored and 1680 are in progress. For the remaining water bodies Data collection and DPR preparation will be completed before 31-03-2023 and all the water bodies will be restored before 30.6.2023.

Thematic Area: 15. Coastal Pollution (O.A.829 of 2019)

Thematic Area :3(X)	Coastal Pollution

Current Status	Desirable Level	Gap	Proposal for attending gap
(1) As per the directions of the Hon'ble National Green Tribunal (NGT) dated 17.9.2019, no sewage or industrial pollution is discharged in coastal waters and CPCB may file latest status report on the subject in O.A. No 673/2018.The District Magistrate may also cover the subject of coastal and marine pollution in the District Environmental plan to be prepared and furnish reports to the Chief Secretary. The Chief Secretary may also include the subject in their monitoring and in the reports furnished in O.A. No 606 of 2018.	Instructions issued to the field officers of TNPCB and the District Collectors concerned of the Coastal districts to issue necessary instructions to the concerned responsible authorities for the stoppage of sewage or industrial discharges and to include "Prevention of Coastal and Marine Pollution as one of the subjects to be dealt by the District Level committee and prepare the District Environmental plan for marine pollution and include the same in the comprehensive plan and the compliance has to be submitted by the District Collectors to the Chief Secretary.	Nil Nil	The stoppage of sewage or industrial discharges into the coastal or marine system and to include the "Prevention of Coastal and Marine Pollution is one of the subjects to be dealt by the District Level committee. In coastal areas illegal discharges were stopped, the Hon'ble NGT order is complied. All the details are collected from the coastal districts of Tamil Nadu and consolidated report was sent to Central Pollution Control Board on 31.12.2019 within the stipulated period of Hon'ble NGT direction. TNPCB vide letters dated 12.08.2020 and 06.10.2020 addressed to line Departments namely, Commissioner of Municipal Administration, Director of Town Panchayat, Rural Development and Panchayat Raj, Public Works Department, TWAD Board and CMWSSB requested to furnish the compliance report and the same was received from CMA and CMWSSB.
(2). As per the directions of	The required details such as		**The Master sheet for the location of all the coastal districts in Tamil Nadu was prepared and submitted to CPCB.**

the Hon'ble National green Tribunal (NGT), dated 3.12.2019, all State PCB's/PCCs of coastal States/UTs may give relevant information's to CPCB within one month from the date of order. (3).The Hon'ble NGT vide its order dated 29.6.2020 in O.A. 829 of 2019 on Coastal and marine pollution has directed that all States/UTs through their concerned departments such as Urban/Rural development, Irrigation &Public Health, Local Bodies environment etc, may ensure formulation and execution of plans for sewage treatment and utilization of treated sewage effluent with respect to each city, town, village, adhering to the timeline as directed by Hon'ble Supreme Court STPs must meet the prescribed standards, including Faecal Coliform.	categorization of coastal areas, status of sewage generation, its treatment and disposal off in coastal areas as per the format prepared by CPCB has to be collected from the coastal districts of Tamil Nadu and has to be compiled. The details such as treatment of sewage /effluent must be ensured 100% and strict coercive action for any violation to enforce rule of law.	NIL	**A Concept note/Proposal for the preparation of Action Plan for rejuvenation of Coastal stretches and marine pollution based on the NGT orders with terms and reference was requested from reputed institutes and NCCR accepted to prepare action plan for rejuvenation of Coastal stretches and marine.** TNPCB has requested Govt. of Tamil Nadu to accord permission to carry out the work of Preparing of "time bound comprehensive action plans to mitigate coastal and marine pollution along the Tamil Nadu coast" at a cost of Rs.49.56 lakhs to entrust the work to NCCR so as to comply the Hon'ble NGT orders. The Tamil Nadu Govt. formed a committee of Experts under clause (bb) of section 16 of Tamil Nadu Transparency in Tenders Act vide G.O. (Ms) No.23 dated: 30.01.2023, and meeting on "Preparation of time bound comprehensive action plan to mitigate coastal and marine pollution along the Coastal stretches of Tamil Nadu was held on 11.05.2023 and the committee decided to permit NCCR, Chennai to carry-out the study and the Government order is awaited. All the local bodies in Tamil Nadu have been insisted to provide adequate treatment systems for sewage treatment and disposal. The subject is reviewed by the Additional Chief Secretary, Environmental, Climate Change and Forests Department and Chief Secretary to Govt. periodically.

Directorate of Rural Development and Panchayat Raj

In Tamil Nadu, the Rural population is about 51.60% according to the 2011 Census. Rural Development and Panchayat Raj Department, Tamil Nadu has administrative control over 12,525 Rural Local Bodies (RLBs). Predominantly, in-situ methods of processing solid and liquid waste are followed by RLBs. The State Government also focuses on bringing behavioural change among all households by creating awareness of Sanitation and Solid & Liquid Waste Management practices.

STATUS OF SOLID WASTE MANAGEMENT

In rural areas, segregated solid waste from households is collected door-to-door through Thooimai Kaavalars on a daily basis. This collected solid waste is transported to the nearest collection, segregation and storage point, which was constructed under the SWM scheme in 3 phases. In this segregation cum storage shed the solid waste collected will be segregated and bio-degradable and non-biodegradable waste will be taken to the nearest processing unit.

Bio-degradable waste will be dumped in the community compost pit for composting and this semi-compost after 25 days will be used for vermicompost for further processing. Also, bio-degradable waste will be taken to the nearest MCCs implemented in peri-urban Village Panchayats and processed, this processed manure is sold for agricultural purposes. It can be noted from the table below, that around 92 % of waste is processed in the existing infrastructures.

Table 1: Details of Solid Waste Management in Village Panchayats

Details	TPD
Quantity of waste generated	1,965
Quantity of waste collected & transported	1,810
Quantity of waste processed	1,810

Wet Waste Processing: -

- Two Community Compost Pit provided in each Village Panchayat (More than 1MT of wet waste can be processed) for processing the bio-degradable waste generated along with the Vermi Composting Unit.
- 287 Micro Composting Centers are available in Districts with a capacity to process 246 MT/Day.
- 22 Modular Bio Gas Plants with a capacity of 915 kg/d are currently functioning in 5 districts of Tamil Nadu for processing the wet waste.
- 11 Bio methanation Plant 14.6 MT capacity is functional in 5 districts of Tamil Nadu for processing the wet waste.

Dry Waste Processing: -

- 292 Plastic Waste Management Units are functional for handling the plastic waste generated in Village Panchayats

Legacy Waste in Village Panchayats

Village Panchayats having legacy waste sites of age over 3 years have been identified for mapping with Bio mining sites available in the ULBs. Mapping of 20 biomining sites in ULBs with 46 rural legacy waste sites within an aerial distance of 20 km was done.

Steps taken to reduce Gap:

- 12,525 Village Panchayats are taken up for saturation in solid as per Annual Implementation Plan 2021-22, 2022-23 & 2023-24. The proposed works are at various stages, expected to be completed before 31.03.2024.

Table 2: Details of proposed Solid Waste Management activities in V.Pts

S.No	Description	No. of works proposed	No. of works completed	Status
1	Tricycles & Pushcarts	8,396	2,562	Action is being taken for the provision of infrastructure facilities
2	E-Carts	10,544	6,140	
3	Motorized Vehicle	1,420	1,292	
4	Plastic Storage Shed	904	103	
5	Modular Gobardhan Plants	90	30	
6	Gobardhan Plant	31	11	

STATUS OF GREY WATER MANAGEMENT

Grey water generation and treatments: -

There are 12,525 Village Panchayats in Tamil Nadu and the estimated greywater generation at present is 1,130 MLD. The majority quantity of grey water generated from rural households is absorbed in situ through Kitchen gardens and Individual soak pits. About 1,018 MLD of grey water is being treated with the available infrastructures.

The grey water from Village Panchayats is usually treated through in-situ treatment methods. These treatment infrastructures are covered in the convergence of Government schemes like the Swachh Bharat Mission (Grameen), 15th Central Finance Commission and Mahatma Gandhi National Rural Employment Guarantee Scheme.

Table 3: Details of Grey Water Management in Village Panchayats

Category	Quantity of Greywater Generation (MLD)	Current treatment capacity (MLD)	The current gap in treatment (MLD)
DRD & PR	1130.00	1017.98	112.02

Capacity Addition for Grey Water Treatment

In order to fill the gap in the treatment of 112 MLD, Grey water treatment infrastructures like Individual Soak Pits, Community SPitsPitst, HorizoFiltersilter, Vertical Filters and other GWM systems (Phytorid, Waste StabilizatioPondsnd, Root Zone Treatment System, Soil Bio Technology etc.,) are proposed.

Grey water of 143 MLD can be treated with the proposed infrastructures. Hence, the gap in grey water treatment will be overcome through the addition the of above infrastructures

Steps taken to reduce the gap:

10,217 Village Panchayats are taken up for saturation in liquid waste management as per Annual Implementation Plan 2021-22, 2022-23 & 2023-24. The proposed works are at various stages, expected to be completed before 31.03.2024.

Table 4: Details of proposed grey water management activities in V.Pts

S.No	Description	No. of works proposed	Status
1	Individual soak pit	4,90,000	Action is being taken for the provision of
2	Community soak pit	70,000	

S.No	Description	No. of works proposed	Status
3	Vertical filters	4,806	infrastructure facilities
4	Horizontal subsurface flow constructed wetland	3,093	
5	Other GWM works	32	

Faecal Sludge Management

The household toilets constructed in Rural Local Bodies are predominantly with twin leach pits. Further, urban Faecal Sludge Management (FSM) facilities such as FSTPs and STPs which are located within 15km vicinity of the Village Panchayat will be utilized. Currently, all 12,525 Village Panchayats are mapped with Urban Local Bodies for utilizing the FSM facilities in five phases.

Linking of STPs/FSTPs in ULBS:

FSM initiatives

- Based on an assessment of the number, capacity, and location of existing Sewage Treatment Plants (STPs) and Faecal Sludge Management Plants (FSTPs) available in districts, Village Panchayats are mapped to utilise the optimum capacity of existing STPs/FSTPs in ULBs.
- Out of 12,525 Village Panchayats in Tamil Nadu
  - 1045 VPs are mapped with currently functional STPs of 39 ULBs
  - 772 VPS are mapped with currently functional FSTPs of 31 ULBs
  - 7,516 VPs are mapped with the ongoing and proposed STPs/FSTPs of ULBs.

- 3,181 VPs are to be provided with FSTPs for septage management, for which a mapping exercise for clustering is in progress.

➢ After completion, the FSTP proposed in rural areas will be handed over to the concerned panchayat for further O&M.

➢ 432 Village panchayats have been linked with the existing FSTPs and 289 Village panchayats have been linked with the STPs in their nearest municipality with proper MoU.

BEST PRACTICES:

Namma Ooru Superu Campaign

'நம்ம ஊரு சூப்பரு – Namma Ooru Superu' special campaign was launched on August 15th, 2022, in all village panchayats during Grama Sabha to bring about a behavioural change among the rural community by creating awareness on sanitation and solid and liquid waste management practices and to sustain it. During the campaign period, various activities were planned at all Public Places and Institutions on different weeks from August 15th to October 2nd 2022.

The achievements of this campaign were integral to advancing the State's efforts under the Swachh Bharat Mission – Grameen [SBM (G)]. The campaign was hence re-launched from the 1st of May 2023 till the 15th of June 2023 to strengthen the State's progress towards ensuring environmentally sustainable and clean villages. In addition to the activities carried out last year, this year's campaign will also emphasise the effective management of legacy waste, the achievement of the State's retrofitting target and include health and welfare measures for workers undertaking sanitation-related works.

The activities planned from May 1st to June 15th, 2023 are as follows:

1. Mass cleaning of public institutions/places (1st May 2023 – 13th May 2023)
2. Health and Welfare measures for all workers engaged in sanitation-related works (8th May 2023 – 13th May 2023)

3. Clean and green villages (8th May 2023 – 13th May 2023)
4. Awareness of water, sanitation and waste management at households through Self Help Group (SHG) Members and at institutions (15th May 2023 – 27th May 2023)
5. Ban on Single Use Plastics (SUP) and use of alternatives to SUP (29th May 2023 – 3rd June 2023)
6. Awareness in schools and colleges on water, sanitation and waste management (5th June 2023 – 15th June 2023)

Achievements of the ongoing campaign

During the campaign period, around 14,31,591 people participated in the mass cleaning activity to clean 20,975 garbage hotspots, 91 legacy waste sites, 7,794 public places, and 57,049 govt. buildings and 5,021 toilets/CSCs. Further, 20,004 SLWM infrastructure and 4,77,601 m of drainage have also been cleaned. Through this mass cleaning activity, 2563.9 tonnes of waste were collected. Around 45% of this waste was taken to segregation sheds, and the rest were taken to micro-composting centres, compost pits and plastic waste management units.

Under the "clean and green "activity, 58,978 saplings have been planted in 4203 garbage hotspots, 37 colleges and 2,381 AWCs with 48,899 participants

Chief Secretary to Government
State of Tamil Nadu

//True Copy//

Joint Secretary to Government
Municipal Administration And Water Supply Department
Secretariat, Chennai - 600 009.

Quarterly report for September-2023

S.N.		Questions	Remarks			
1		**Numbers of RLBs**	**12525**			
2		**Over all waste management status in States/UTs**				
a		Quantity of MSW generated (TPD)	**1965**			
b		Quantity of MSW collected (TPD)	**1906**			
c		Quantity of MSW segregated & transported (TPD)	**1810**			
d		Quantity of MSW processed (TPD)	**1810**			
e		Quantity of MSW disposed in secured land fill site (TPD)	**0**			
f		Gap in Solid Waste Management UTs (TPD) [1(a)- I(d)- 1(e)]	**155**			
g		Solid Waste Management Plan	**Yes**			
3		**Waste Collection**	**Existing**	**Target**	**Gap**	**Timeframe**
a		RLBs in which waste door-to-door collection is implemented(No.)	**12525**	**12525**	**0**	**Completed**
b		RLBs in which segregation of waste is implemented (No.)	**12525**	**12525**	**0**	**Completed**
c		RLBs in which transportation of segregeted waste is implemented (No.)	**12525**	**12525**	**0**	**Completed**
4		**Waste Processing**				
a		**Material Recovery facilities**				
	(i)	Total Capacity (TPD)	**0**	**0**	**0**	
	(ii)	Number	**0**	**0**	**0**	
	(iii)	Number of RLBs covered	**0**	**0**	**0**	
b		**Recycling**				
	(i)	Total Capacity (TPD)	**0**	**0**	**0**	
	(ii)	Number	**0**	**0**	**0**	
	(iii)	Number of RLBs covered	**0**	**0**	**0**	
c		**Composting**				
	(i)	Total Capacity (TPD)	**0**	**0**	**0**	
	(ii)	Number	**12525**	**12525**	**0**	**Two Compost pits constructed in each Village Panchayats under MGNREGS in all the 12525 Village Panchayats**
	(iii)	Number of RLBs covered	**12525**	**12525**	**0**	
d		**Biomethanation**				
	(i)	Total Capacity (TPD)	**13.49**	**-**	**-**	
	(ii)	Number	**10**	**37**	**27**	
	(iii)	Number of RLBs covered	**-**	**-**	**-**	

e		**RDF**				
	(i)	Total Capacity (TPD)	0	0	0	
	(ii)	Number	0	0	0	
	(iii)	Number of RLBs covered	0	0	0	
f		**Waste to Energy Plants**				
	(i)	Total Capacity (TPD)	0	0	0	
	(ii)	Number	0	0	0	
	(iii)	Number of RLBs covered	0	0	0	
4		**Waste Disposal**				
a		**Landfill**				
	(i)	Total Capacity (T)	0	0	0	
	(ii)	Number	0	0	0	
	(iii)	Number of RLBs covered	0	0	0	
5		**Legacy Waste Waste management**				
a		Number of dumpsites (No.)	0			
b		Quantity of Waste dumped at dumpsites (Tons)	0			
c		Number of dumpsites cleared (No.	0			
d		Number of dumpsites in which biomining has commenced (No.)	0			
e		Time frame for clearing all dumpsites	Nil			
6		**Other Information**				
a		Information regarding development of model towns/cities/villages	0			
b		Creation of Environmental cell				
c		Standardization of rates for procurement of services/equipment (to do away with the tendering process) required for solid waste management				

Improvements Since Last Hearing

		Item	Present Status	Status at the time of last hearing	Whether directed timelines have been adhered or not ?
1		**Door-to-door collection (%)**	100%	100%	Yes
2		**Source segregation of waste (%)**	70%	70%	Yes
3		**Waste Processing (TPD)**	75%	75%	Yes
4		**Dumpsites capped (No.)**	-	-	-
5		**Dumpsites Bio-remediated (No.)**	-	-	-

Format for Solid waste Management - Sep 2023						
S.No		Questions	Remarks			
1		Numbers of ULBs	649			
2		Over all waste management status in States/UTs				
a		Quantity of MSW generated (TPD)	15240			
b		Quantity of MSW collected (TPD)	14935			
c		Quantity of MSW segregated & transported (TPD)	13259 MT Segregated, Collected and Transported 1981 MT of unsegregated waste collected and Transported			
d		Quantity of MSW processed (TPD)	10375			
e		Quantity of MSW disposed in secured land fill site (TPD)	0			
f		Gap in Solid Waste Management UTs (TPD) [1(a)- I(d)- 1(e)]	4865			
g		Solid Waste Management Plan	Yes			
3		Waste Collection	Existing	Target	Gap	Timeframe
a		ULBs in which waste door-to-door collection is implemented(No.)	649	649	0	100% Door to Door collection will be achieved by 31.12.2023
b		ULBs in which segregation of waste is implemented (No.)	649	649	0	
c		ULBs in which transportation of segregeted waste is implemented (No.)	649	649	0	
4		Waste Processing				
a		Material Recovery facilities				
	(i)	Total Capacity (TPD)	2123	3085	962	Dec-23
	(ii)	Number	1026	1353	327	Dec-23
	(iii)	Number of ULBs covered				In 392 ULBs, 421 plants Proposed under SBM 2.0 of which 135 plants completed
b		Recycling (Incineration Plant)				
	(i)	Total Capacity (TPD)	390	1716	1326	1326 TPD of Incineration plant is under
	(ii)	Number	19	57	38	construction on cluster basis and CTE&CTO
	(iii)	Number of ULBs covered	-	-	-	is pending with TNPCB
c		Composting				
	(i)	Total Capacity (TPD)	6730	8196	1466	Dec, 2023
	(ii)	Number (MCC)	1033	1170	137	Dec, 2023
	(iii)	Number of ULBs covered	649	649		
d		Biomethanation				
	(i)	Total Capacity (TPD)	259	259	0	Completed
	(ii)	Number	107	107	0	Completed
	(iii)	Number of ULBs covered	67	67	0	Completed

S.No		Questions	Remarks			
e		RDF				
	(i)	Total Capacity (TPD)	0	0	0	
	(ii)	Number	0	0	0	
	(iii)	Number of ULBs covered	0	0	0	
f		Waste to Energy Plants				
	(i)	Total Capacity (TPD)	0	0	0	
	(ii)	Number	0	0	0	
	(iii)	Number of ULBs covered	0	0	0	
4		**Waste Disposal**				
a		Landfill				
	(i)	Total Capacity (T)	0	0	0	
	(ii)	Number	0	0	0	
	(iii)	Number of ULBs covered	0	0	0	
5		**Legacy Waste Waste management**				
a		Number of dumpsites (No.)	291			
b		Quantity of Waste dumped at dumpsites (Cu.m)	215 Lakhs Cu.m	**89 sites were sanctioned for additional biomining quantity under SBM 2.0 and works are various stages**		
c		Number of dumpsites cleared (No.)	139			
d		Number of dumpsites in which biomining has commenced (No.)	152			
e		Time frame for clearing all dumpsites	**The additional biomining works sanctioned under SBM 2.0 are expected to completed by Mar 2024. Biomining work in Greater Chennai Corporation will be completed in the time frame of 31.12.2024.**			
6		**Other Information**				
a		Information regarding development of model towns/cities/villages	**Report submitted for 3 Cites, 7 Towns and 93 Model villages**			
b		Creation of Environmental cell				
c		Standardization of rates for procurement of services/equipment (to do away with the tendering process) required for solid waste management	**The rate for procurement of equipment is based on the GeM portal and approved by State High Powered committee.**			

Improvements Since Last Hearing

S.no		Item	Present Status	Status at the time of last hearing	Whether directed timelines have been adhered or not ?
1		**Door-to-door collection (%)**	98%	98%	Yes
2		**Source segregation of waste (%)**	85%	85%	Yes
3		**Wet Waste Processing (TPD)**	82%	80%	Yes
4		**Dumpsites capped (No.)**			-
5		**Dumpsites Bio-remediated (No.)**	139	119	Yes

FORMAT FOR SEWAGE MANAGEMENT

Sl. No.	Action Point	A	B	C=A-B	D
		Existing status	Desired/ Projected (2035)	Gap	Timeline
1.	Estimated Sewage Generation	1698.73	3600.00	N/A	
2.	Treatment Capacity (Projection for 05years to be taken into consideration)	1235	1320.62	-	-
3.	Status of Sewerage System (in Km)	5572.69	-	-	-
4.	No. of STPs (Details to be provided as per Annexure)	69	21	-	-
5.	Has bulk users identified for reuse of treated Water such as Industrial Clusters, Metro Rail, Indian Railways, Infrastructure Projects, Agriculture, Bus Depots and PWD? (Y /N)	Yes	-	-	-
6.	Quantity of treated wastewater being used by Bulk User (in MLD)				
	Industrial Clusters,	44.00 (Agreement signed for Sale of Treated water)	-	-	-
	Metro Rail,	-	-	-	-
	Indian Railways,	-	-	-	-
	Infrastructure Projects,	-	-	-	-
	Agriculture,	36.50	-	-	-
	Bus Depots and	-	-	-	-
	PWD.	-	-	-	-
7.	No. of Water Aquatic Sources (Lakes, Pond, etc.) being developed through treated wastewater	-	-	-	-

ANNEXURE-I

FORMAT FOR SEWAGE TREATMENT PLANTS AND UTILIZATION OF SEWAGE

S. No	City / Town	No. of STP	Location of STP	Coordinates of STP (Latitude and Longitude)	STP Commissioned in (Year)	Status (Operational / Non-Operational / Under Construction)	STP Installed Capacity (in MLD)	Actual Utilization of installed Capacity (in MLD)	Technology (UASB/ ASP/ OP/ SBR/ MBR / FAB Etc.,)	Consent Status	Compliance Status			
											Ph	TSS	COD	BOD
1	Coimbatore	4	Ukkadam	Lat : 10.98315765 Lon : 76.97252296	2012	Operational	70	35	SBR	Renewal Under Progress	7.5	9	36	8
			Ondiputhur	Lat : 10.9871063 Lon: 77.001327	2017	Operational	60	3	SBR	CTO Obtained	7.2	8	32	6
			Coimbatore - Nanjudapuram	Lat : 10.986953, Lon : 77.001721	Yet to be commissioned	Under trial run	40	9	SBR	CTO Obtained	-	-	-	-
			Coimbatore – Kuruchi & kuniyamuthur	Lat: 10.5802, Lon: 77.0140	Yet to be commissioned	Under trial run	30.53	-	SBR	CTO Obtained	-	-	-	-

S. No	City / Town	No. of STP	Location of STP	Coordinates of STP (Latitude and Longitude)	STP Commissioned in (Year)	Status (Operational / Non-Operational / Under Construction)	STP Installed Capacity (in MLD)	Actual Utilization of installed Capacity (in MLD)	Technology (UASB/ ASP/ OP/ SBR/ MBR / FAB Etc.,)	Consent Status	Compliance Status			
											Ph	TSS	COD	BOD
2	Vellore	1	Muthumandapam	Lat :12.932166 Lon: 79.135616	2015	Operational	10.28	8	ASP	CTO Applied	7.4	24	176	18
3	Dindigul	1	Ponmandurai Pudupatti	Lat :10.35°N, Lon:77.95°E	06.11.2013	Operational	13.65	4	ASP	CTO Obtained	7.8	26	112	18
4	Tiruchirappalli	2	Panjapur	Lat - 10.45'6" Long - 78.39'32"	30.09.2007	Operational	58	58	WSP	CTO Applied	7.34	42	64	6
			Trichy STP 2	Lat - 10.77349 Long - 78.71916	Yet to be commissioned	Under trial run	37	-	SBR	CTE & CTO obtained	-	-	-	-
5	Avadi	1	Mukthapudupet	13.149045, 80.059462	July 2017	Operational	4	2	SBR	CTO Obtained	7.52	8	72	7.9
	Avadi	1	Paruntthipattu	13.109928, 80.104318	September 2021	Operational	36	8	SBR	CTO applied	7.77	-	96	8
6	Madurai	2	Sakkimangalam & Avaniyapuram	Sakkimangalam Lat: 9.899924 Long:	01.03.2011	Operational	170.7	39	SBR	CTO Obtained	7.88	12	64	13

S. No	City / Town	No. of STP	Location of STP	Coordinates of STP (Latitude and Longitude)	STP Commissioned in (Year)	Status (Operational / Non-Operational / Under Construction)	STP Installed Capacity (in MLD)	Actual Utilization of installed Capacity (in MLD)	Technology (UASB/ ASP/ OP/ SBR/ MBR / FAB Etc.,)	Consent Status	Compliance Status			
											Ph	TSS	COD	BOD
				78.190997 Avaniyapuram Lat: 9.871233 Long: 78.10473										
7	Tirunelveli	1	Ramaiyampatti	8.7568547 77.6829877	2007	Operational	24.2	10.50	WSP	CTO Obtained	7.35	810	144	46
8	Thanjavur	1	Salaikara Street	10.78512 79.157975	26.02.2003	Under Renovation	28.05	14.00	ASP	CTO Obtained	7.39	24	88	10
9	Tiruppur	1	Sarkar periyapalayam	11o08'02'N, 77o24'45'E	01-09-2009	Operational	15	8.5	EASP	CTO Obtained	7.8	12	40	12
	Tirupur	3	Expansion of existing	11.132139 77.414716	-	Under Construction	15	-	EASP	Existing CTO Can be adopted	-	-	-	-
			Tirupur Sarkar periyapalayam	11.132139 77.414716	-	Ready To trial run	36	-	SBR	CTO Obtained	-	-	-	-

S. No	City / Town	No. of STP	Location of STP	Coordinates of STP (Latitude and Longitude)	STP Commissioned in (Year)	Status (Operational / Non-Operational / Under Construction)	STP Installed Capacity (in MLD)	Actual Utilization of installed Capacity (in MLD)	Technology (UASB/ ASP/ OP/ SBR/ MBR / FAB Etc.,)	Consent Status	Compliance Status			
											Ph	TSS	COD	BOD
			Chinnandipalayam	11.100991 77.293507	-	Ready To trial run	20	-	SBR	CTE obtained, CTO - Amount Paid to TNPCB, under scrutiny in progress	-	-	-	-
10	Erode	1	Peelamedu	NL 11'20'18' EL 77'44'22'	22-12-2018	Operational	50.55	25	MASP	CTO Obtained	7.57	20	115	10
11	Salem	1	Vellakuttai	11°39'14" N - 78°10'12" E	01.03.18	Operational	13	12	MBBR	CTO obtained	7.94	120	384	96
		1	Anaimedu	Anaimedu - 11°39'42" N -78°9'52"E	01.03.19	Operational	6	5	FAB	CTO applied on 25.04.22	7.65	40	312	64
		1	Mankuttai	Mankuttai - 11°40'7" N - 78°7'35"E	29.08.20	Operational	35	29	FAB	CTO obtained	7.11	64	128	24

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											Ph	TSS	COD	BOD
		1	Vandipettai	11°39'0" N - 78°8'33"E	2021	Operational	44	1	FAB	CTE obtained	-	-	-	-
12	Cuddalore	1	Devanampattinam	11.753832 79.780407	2016	Operational	12.25	6.7	ASP	CTO Obtained	7.97	14	96	22
13	Kanchipuram	1	Nathapettai	12.828724 79.722854	1972 Renovated scheme - 2011 April	Operational	14.7	14.7	WSP	CTO Obtained	7.2	30	109	25
14	Maraimalai Nagar	1	Adigalar salai	Longtitude-80.03006 Latitude-12.79923	28.02.2011	Operational	2.2	2.2	EASP	CTO Applied waiting for PCB (AE) inspection	7.81	12	154	8
15	Tiruvallur	1	Sivam Nagar	Latitute: 13.12118 Longitude: 79.9259	17.2.2017	Operational	6.2	5.5	MBBR	Application pending due to NGT case	7.17	14	88	9
16	Thiruvannamalai	1	Manalurpet Road	Latitude-12.21663355	2014	Operational	8.7	5.1	ASP	CTO obtained	6.4	48	214	32

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											Ph	TSS	COD	BOD
				Longitude-79.06861122										
17	Viluppuram	2	Kakuppam	Lat :11.957374 Lon:79.504349	26.06.2014	Operational	12.5	9.8	ASP	CTO obtained	7.2	12	72	11
			Erumanthangal	Lat - 11.944019 Lon - 79.514268						CTO obtained	7.2	12	72	11
18	Arakkonam	1	Silverpet	Silverpet 13.110069'N 79.698920'E	Trial run commenced from 15.11.2019	Operational	11.04	4	ASP	CTO obtained	7.79	18	193	15
19	Bodinayakkanur	1	Bodinayakkanur	Lat - 10.0179204, Lon - 77.3590704	27.2.2019	Operational	12.08	4.2	ASP	CTO Obtained	7.5	15	40	8
20	Chinnamanur	1	Chinnamanur	Latitute-9.850333 Longitude-77.385067	01.04.2012	Operational	3.99	3.72	ASP	CTO Obtained	7.39	32	96	14

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21	Periyakulam	1	Periyakulam	Latitude-10.1256415 Longitude-77.561725	2017	Operational	5.47	4	ASP	CTO Obtained	7.7	28	120	20
22	Ramanathpuram	1	Kaluguoorani (Viilage)	Lat :9.369763, Lon : 78.830838	06.11.2013	Operational	7	6.5	MASP	CTO Obtained	7.87	8	0	7
23	Theni-Allinagaram	1	Karuvelnayakan Patti, Theni (Veeranayakan Patti)	9.999, 77.502	08.06.2015	Operational	12.05	9.5	ASP	CTO Obtained	7.5	16	96	14
24	Dharmapuri	1	Chettikarai	12`9`1.85`` 78`10`50.14``	05.07.2014	Operational	4.86	3.9	ASP	CTO Obtained	7.04	28	176	19.5
25	Karur	1	Arasu Colony, Panchama devi Village	latitude : 10.97 997, Longitude: 78.09 548	30.04.2007	Operational	15	6.5	EAP	CTO obtained	7.11	26	71	24
26	Krishnagiri	1	Derasamuthiram Eri	Latitude 2 30'25.48" N &Longitude 78 30'25.48" E	15.7.2017	Operational	12.34	8	ASP	CTO Renewal Under progress	7.45	26	128	16.5

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											Ph	TSS	COD	BOD
27	Namakkal	1	Sendamangalam road	11.13'33" N 78.10'23" E	01.10.2014	Operational	5	6.2	ASP	CTO Obtained	6.39	36	76	28
28	Mettur STP-1	3	Thangamapurippattinam	Latitude-11.47'37" Longitude-77.49'07"	Aug-19	Opertional	0.823	0.354	ASP	CTO obtained	6.5	20	50	12
	Mettur STP-2		Salem Camp	Latitude=11.47'20" Longitude-77.47'45"	Jan-19	Opertional	0.924	0.314	ASP	CTO obtained	7	20	45	11
	Mettur STP-3		Komburankadu	Latitude :11.46'60" Longitude: 77.47'01"	May-19	Opertional	5.452	2.834	ASP	CTO obtained	7.2	22	45	15
29	Kumbakonam	1	Karikulam	10'58'22.09" N 79'24'48.55" E	2009	Operational	17	13.5	ASP	CTO available	7.37	102	48	29
30	Nagapattinam	2	Nagapattinam	Lat: 10.757905 Long: 79.834479	27.02.2016	Operational	9.63	5.10	ASP	CTO Renewal Under progress	7	11	43	13

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											Ph	TSS	COD	BOD
			Nagore	Lat: 10.822428 Long: 79.844813	31.05.2019	Operational	2.96	1.10	EASP	CTO Renewal Under progress	7.1	10	47	15
31	Tiruvarur	1	Tiruvarur	NL 10º48'29" EL 79º38'17"	01.10.2014	Operational	6.92	4.1	ASP	CTO Renewal Under progress	7.35	37	80	20
32	Ariyalur	1	Keezhapalur village	11□04'06.9" N 79□03'19.8" E	12.10.2020	Operational	4.16	1.8	ASP	CTO Renewal Under progress	7.69	28	64	18
33	Pudukkottai	1	Maaruppurani	Latitute : 10'21'36" North Longitude: 78'48'33' East	27.7.2016	Operational	10.62	8.5	ASP	CTO available	7.59	35	104	18
34	Mayiladuthurai	1	Aarupathi	Latitute : 11.6'21" North Longitude:	01.01.2008	Operational	5.85	5.85	WSP	CTO Renewal Under progress	7.16	14	32	14

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											Ph	TSS	COD	BOD
				79.40'22" East										
35	Perambalur	1	Neduvasal road, Thuraimangalam road.	Lat . 111410.9 N Long. 785257. E	06.11.2013	Operational	4.2	3.6	ASP	CTO Renewal Under progress	7.26	92	184	26
36	Udhagamandalam	1	Kasthooribai colony	Lat - 11.408436 Lon - 76.679469	15.04.2000	Operational	5	4	ASP	CTO to be Obtained	7.73	32	272	48
37	Udumalaipet	1	Kurinjeri	Lat - 10.59812 Lon - 77.25447	30.06.2016	Operational	7.81	4.85	ASP	CTO Obtained	7.26	28	130	24
38	Virudhunagar	1	Virudhunagar	Lat -9.5654 Long- 77.9603	19.10.2014	Operational	7.65	3.8	ASP	CTO obtained on 21.07.23	6.33	12	16	8
39	Chidambaram	1	Ambalathadikuppam	Lat -11.421 Long- 79.6889	2020	Operational	9.44	6.8	ASP	CTO obtained	7.53	26	132	15.2
40	Thirupathur	1	Georgepettai	Lat - 12°29'.05.540" N Long - 78°34'.25.10	2020	Operational	11.43	4	ASP	CTO obtained	8.33	26	208	8

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											Ph	TSS	COD	BOD
				1" E										
41	Rasipuram	1	Dhobi colony	Lat -11.453 Long- 78.189	2021	Operational	6.96	3.5	ASP	CTO obtained	7.1	16	45	18
42	Sivagangai	1	Muthupatti	Lat -9.50 Long- 78.27	2020	Operational	4.92	2	EASP	CTO to be obtained	7.98	6.4	17	8.5
43	Sathyamangalam	1	Kombupallam	Lat -11.3 Long- 77.14	2021	Operational	4.08	1	FAB	CTO obtained	Under Trial Run			
44	Tambaram	1	Mannuram Kulam	Lat -12.92 Long- 80.10	2021	Operational	30	14	SBR	CTO obtained on 11.08.2023	Under Trial Run			
45	Thoothukudi	1	Tharuvaikulam	Lat -8.87 Long- 78.15	2022	Operational	28	9	ASP	CTO to be obtained	7.7	46	29	10
46	Ulundhurpet	1	Moolasamudram	Lat -11.69 Long- 79.28	2022	Operational	3.15	0.49	EASP	CTO obtained	Under Trial Run			

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											Ph	TSS	COD	BOD
47	Thiruchendhur	1	Thoppur	Lat -8.49 Long- 78.11	2020	Operational	3.9	2.0	EASP	CTO obtained on 24.04.23	Under Trial Run			
48	Mettupalayam	1	Sikkadasampalayam	Lat -11.3 Long -76.96	-	-	8.65	0.70	SBR	CTO applied	Under Trial Run			
49	Pollachi	1	Market Road	Lat -10.39 Long -76.59	2022	Operational	11.25	2.9	SBR	CTO applied	Under Trial Run			
50	Karaikudi	1	Karaikudi	Lat - 10.039868 Long - 78.762138	2023	Operational	16	1.7	ASP	CTO applied	7.8	14	34	12
51	Nagerkoil	1	Valampuri vilai	Lat - 8.1632 Long - 77.4347	2023	Under trial run	17.66	17.66	EASP	To Be Apply	Under trial run			
52	Rajapalayam	1	Malaiyadi Patti	Lat - 9.4543N Long- 77.5794E		Under trial run	21.85	-	SBR	CTO obtained on 02.07.2023	Under Trial Run			
53	Sattur	1	Minmini Road	Lat -9.35 Long -77.93	2022	Operational	4.65	1.5	ASP	CTO obtained on	Under Trial Run			

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											Ph	TSS	COD	BOD
										07.04.2022				
					Total		1235	498.47						

Reuse of Treated Water:

S. No	Name of the ULB	Quantity (in MLD)	Usage/ Purpose
1	Nagapattinam	2.00	M/s KVK Power for cooling purpose
2	Dindugul	5.00	To maintain the TDS level of Tanners as well for Agro- forestry.
3	Tirunelveli	24.00	Nanguneri SEZ for Industries
4	Perambalur	3.00	MRF Industrial use

5	Ramanathapuram	3.00	NTC Infra
6	Coimbatore	15.00	Agricultural use to farmers association
7	Pollachi	11.50	Agricultural use to farmers association
8	Chinnamannur	3.00	Agricultural use
9	Karur	7.00	Agricultural use
10	Arakkonam	7.00	MRF Industrial use