Municipal Administration and Water Supply (MA.IV) Department, Secretariat, Chennai – 600 009.

Letter No.18583/MA.IV(1)/2018-115, Dated 04.05.2023

From
Thiru. Shiv Das Meena, I.A.S.,
Additional Chief Secretary to Government.

To
The Member Secretary,
Central Poolution Control Board,
Parivesh Bhawan, East Arjun Nagar,
Delhi -110032 (w.e)

Sir,

Sub: National Green Tribunal - Solid Waste Management Rules, 2016 – Orders of National Green Tribunal in O.A.No.606 of 2017 dated: 12.09.2019 – Quarterly report for the quarter ended March, 2023 and report on the thematic areas and prescribed format for Solid Waste Management and Sewage Management - Submitted - Regarding.

Ref : Orders of the National Green Tribunal dated 12.09.2019 and 07.01.2020 in OA.No.606/2018.

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I am to invite attention to the National Green Tribunal orders cited.

2. As per the orders of the Hon'ble National Green Tribunal orders dated 12.09.2019 and 07.01.2020, the quarterly report for the Quarter ended March, 2023 on 15 Thematic areas and information on Solid Waste Management and Sewage Management in the prescribed format for the quarter ended March, 2023 to be filed by the Chief Secretary to Government on behalf of the State of Tamil Nadu are enclosed herewith for filing before the Hon'ble National Green Tribunal, New Delhi.

Yours faithfully,

N. Balusamy

for Additional Chief Secretary to Government

STATUS 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

March - 2023

INDEX

S. No.	Contents	Page No.
1.	Compliance to Solid Waste Management Rules including Legacy Waste	
2.	Compliance to Bio-medical Waste Management Rules	
3.	Compliance to Construction & Demolition Waste	
4.	Compliance to Hazardous Waste Rules	
5.	Compliance to E-Waste Rules	
6.	351 Polluted river stretches in the country	
7.	122 Non-attainment cities	
8.	100 Industrial Clusters	
9.	Status of STPs and re-use of treated water	
10.	Status of CETPs/ETPs including performance	
11.	Ground water extraction/contamination and re-charge	
12.	Air Pollution including Noise Pollution	
13.	Illegal sand mining	
14.	Rejuvenation of water bodies	
15.	Coastal Pollution	

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 Commissioner of Town Panchayat.

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.	Achieved	Nil	Complied

• Workers are encouraged to use protection equipments during their routine collection works and processing activities			

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 31.06.2023.
Source Segregation - 87%	**100 %**	**13 %**	

Processing facilities for wet waste Total Waste Generation in 649 ULBs is 15,240 TPD ✓ Total wet waste generation is 8,659 TPD (57%) ✓ Waste to Compost Processing facilities (Micro Compost Centres) ✓ 1170 MCC sanctioned to process 4260 TPD of wet waste in 21 Corporations and 138 Municipalities and 39 Town panchayats. So far, 999 MCCs with handling capacity of 3591 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.	**100 %**	**26%**	✓ 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 500 TPD capacity in Kodungaiyur and Perungudi is proposed to handle the further requirement. ✓ 354 Windrows composting sanctioned with capacity of 591 TPD is under construction.

✓ 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. 516 Windrows and 27 Vermi Composting plants are functioning with capacity of 1370 TPD. ✓ The Overall Processing percentage of wet waste is 74%.(6440TPD)From June 2016 to March 2023, 4,78,420 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. ✓ 82,140 Tonnes of non-saleable, non-recyclable wastes disposed up to 31.03.2023 ✓ 5,06,760 MT of recyclable waste were sold and Rs.140.90 Crore distributed to sanitary workers for the period from August 2017 to 31.03.2023			**GCC:** ✓ 1 no of 20 TPD Pyrolysis plant work is completed and awaiting for CTO from TNPCB. ✓ 1 nos of Incinerator of capacity of 5 TPD in thiruvotriyur obtained CTO from TNPCB. ✓ The Waste to Energy plant of capacity 1500 MT and 2 nos of Automated MRF of capacity 500 TPD each is proposed under SBM 2.0. for which DFR is under preparation through the consultant. **DMA:** ✓ 108 Material Recovery Facilities has been sanctioned under SBM 2.0 and works are in various stages of construction. ✓ 15 nos. of incinerators are proposed in 30 ULBs and 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 works are under construction.

✓ To dispose the dry waste generated in ULBs, 439 nos of Material Recovery Facilities/Resource recovery centres has been constructed and put in use. The ULBs having land constraints have established the RRCs in the MCCs. ✓ 82,140 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 ✓ Service providers are processing at a capacity of 250 TPD at their source.			

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 76 % 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%	24 %	✓ 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	Removal of Legacy waste
15 (zi), (zk)	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 104 locations and cleared 47 lakh Cu.m of legacy waste and 496 acres of land has been reclaimed. ✓ In 187 locations, works are in various stages. ✓ Centre for Environmental Studies, Guindy Campus, Anna	100%	(Completed 22%) Fund Sanctioned & under progress – 78%	✓ In 89 Locations an additional quantity of legacy waste has been sanctioned in 4th SHPC meeting of SBM 2.0 to remove 14.72 lakhs MT.

University, Chennai has been engaged as Third Party Inspection Agency for technical guidance in Bio-mining works.			

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. 1151.67 Cr (2021-22) ✓ 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 2021-22 as per Form IV will be submitted to TNPCB in the month of August 2022. ✓ 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	Nil	Nil	Complied

theme "My Waste, My Responsibility" i.e. "எனது குப்பை, எனது பொறுப்பு". 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.			

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"	As indicated in SWM Rule 2016	**Nil**	**Complied**

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 based on CPCB's template and issued Directions under section 5 of Environment (Protection) Act, 1986 with respect to remitting Interim Environmental Compensation to 13 Corporations namely, Chennai, Coimbatore, Madurai, Trichy, Salem, Erode, Thoothukudi, Vellore, Tirunelveli, Nagercoil, Hosur, Thanjavur& Avadi, and Kayalpattinam Municipality, Chitlapakkam Town Panchayat and Kundrathur Panchayat Union. • 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 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 for non-compliance of SWM Rules. • 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 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, Coimbatore, Madurai, Trichy, Erode, Vellore, Nagercoil, Dindigul, Hosur, Thanjavur, Salem, Tirunelveli, Thoothukudi, Kumbakonam and Avadi and 64 Municipalities. • TNPCB conducted Ambient Air Quality monitoring at the vicinity of solid waste dumpsites pertaining to namely, Chennai, Coimbatore, Madurai,	To carry out Ground Water Quality Monitoring at dumpsites of Corporations and Municipalities	Nil	Achieved

Nagercoil, Vellore, Trichy and Dindigul. • Continuous Ambient Air Quality Monitoring stations installed in the vicinity of Kodungaiyur and Perungudi dumpsites.			

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**
• In Tamil Nadu, 21 Corporations, 138 Municipalities and 60 Town Panchayats generate solid waste greater than 5 tons/day and require Authorisation. • TNPCB has issued Authorisation to the above said local bodies.	To issue Authorisation to all urban local bodies generating solid waste greater than 5 tons/day	Nil	Achieved
• As per Rule 24 of SWM Rules, 2016, State Pollution Control Board shall submit Annual Report to the Central Pollution Control Board before 30th July every year. • TNPCB submitted Annual Report for the year 2021-22 to the Central Pollution Control Board on 12.10.2022.	To submit Annual Report to the CPCB before 31st July every year	Nil	Submitted

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 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.	100%	20%	Alternative methods to process wet waste like Thermophelic biomethanation plant with capacity of 2 TPD is under construction in Kodaikanal Municipality to suit the hilly climate conditions. Meanwhile, currently Windrow Composting / MCC is being practiced to process the wet waste.

✓ 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 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	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.

S.No.	Activity	Time limit from the date of Notification of Rules	Present status of compliance by the State of Tamilnadu
	facilities or standalone sanitary landfill facilities by all local authorities having a population of 0.5 million or more.		
3	Procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities.	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 usage as fuel. **GCC:** ✓ 1 no of 20 TPD Pyrolysis plant work is completed and awaiting for Consent to Operate (CTO) from TNPCB. ✓ 1 nos of Incinerator of capacity of 5 TPD in thiruvotriyur obtained CTO from TNPCB. ✓ The Waste to Energy plant of capacity 1500 MT and 2 nos of Automated MRF of capacity 500 TPD each is proposed under SBM 2.0. for which DFR is under preparation through the consultant. **DMA:** ✓ 108 Material Recovery Facilities has been sanctioned under SBM 2.0 and

S.No.	Activity	Time limit from the date of Notification of Rules	Present status of compliance by the State of Tamilnadu
			works are in various stages of construction. ✓ 15 nos. of incinerators are proposed in 30 ULBs and 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 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 87% segregation has been achieved.

S.No.	Activity	Time limit from the date of Notification of Rules	Present status of compliance by the State of Tamilnadu
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 31.06.2023.
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 all local bodies having 100000 or more population	2 years	Total Waste Generation in 649 ULBs is 15,240 TPD ✓ Total wet waste generation is 8,659 TPD (57%) ✓ Waste to Compost Processing facilities (Micro Compost Centres) ✓ 1170 MCC sanctioned to process 4260 TPD of wet waste in 21 Corporations and 138 Municipalities and 39 Town panchayats. So far, 999 MCCs with handling capacity of 3591 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

S.No.	Activity	Time limit from the date of Notification of Rules	Present status of compliance by the State of Tamilnadu
			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. 516 Windrows and 27 Vermi Composting plants are functioning with capacity of 1370 TPD. ✓ The Overall Processing percentage of wet waste is 74%.(6440TPD)
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 disposal of only such residual wastes from the	3 years	as serial no. 2 & 3 above

S.No.	Activity	Time limit from the date of Notification of Rules	Present status of compliance by the State of Tamilnadu
	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 104 locations and cleared 47 lakh Cu.m of legacy waste and 496 acres of land has been reclaimed.

S.No.	Activity	Time limit from the date of Notification of Rules	Present status of compliance by the State of Tamilnadu
			✓ In 187 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 2021-22 to the Central Pollution Control Board on 31.07.2022.

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 12 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 Common Bio-Medical Waste Treatment Facilities (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 Health Care Facilities (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 individual biomedical waste treatment and disposal facilities are available. The entire biomedical waste generated from the HCFs is disposed through 12 Common Biomedical Waste Treatment and Disposal Facilities located in Tamil Nadu. Out of 12 CBMWTFs, 10 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	--	NIL	--

& Clean Service Squad, Ramnad and have been issued with closure direction and disconnection of power supply for non compliance of BMWM rules.			

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 12 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 10 CBMWTFs which are in operation are uploading the daily report on the waste collected and treated in their website. 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. Out of 2 CBMWTFs which are under closure the M/s. Society for Biomedical Waste Management, Nilgiris is uploading the daily report on the waste collected and treated in their website except the M/s. Neat & Clean Service Squad, Ramnad.	--	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 12 CBMWTFs, 10 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. CBMWTFs which are in operation are achieving the standards for retention time in the secondary chamber.			

BMWM Rules	Duties of Occupier of CBMWTFs Online connectivity of CBMWTFs		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
Out of 12 CBMWTFs, 10 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.	–	--	**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 **28230** 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 July of every year. TNPCB has submitted Annual report to CPCB for the year 2021 vide TNPCB letter dated 31.07.2022.	-	-	-

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 12 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, 63 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 63 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.	--	--	-

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. Directions were issued to 25 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, 18 HCFs including Government Hospitals were levied with Environmental Compensation for non-compliance of Directions issued to the HCF. 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. 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. Show Cause Notice under Section 5 of E(P) Act, 1986 were issued to CBMWTF M/s. Ramky Energy and Environment Limited, Virudhunagar to remit Environmental Compensation.			

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 28230 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. Work is under process in 10 facilities. Report yet to be received.

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,	—	Nil	-

Vaniyambadi, Villupuram and Kallakurichi, Ramanathapuram, Hosur, Erode, Thanjavur and Ariyalur 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). Tender under evaluation for Coimbatore and Thoothukudi. Remaining 4 corporations are in tender stage ✓ In GCC, C&D waste plant of capacity 400 TPD each at Kodungaiyur and Perungudi dumping ground is in function.	100%	100%	Currently C& D Waste is being used for laying base course for formation of roads and filling up of low lying areas

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 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	100%	100%	✓ TNPCB has issued Consent to Operate under Water (P&CP) Act, 1974 & Air (P&CP) Act, 1981 for the Construction & Demolition waste processing facilities at Kodungaiyur and Perungudi at Greater Chennai Corporation. ✓ Retender has been called for setting up of C & D processing facility of 50 TPD in Trichy Corporation. ✓ Setting up of C & D processing facility in Tambaram Corporation and in Madurai Corporation are under proposal stage.
✓ TNPCB submitted Annual Report for the year 2021-22 to the Central Pollution Control Board on 12.10.2022.	To submit Annual report to the CPCB before 31st July every year	Nil	Submitted

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 4266 units generating hazardous wastes as on 31.03.2022& authorization issued.	-	Nil	-

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.	-	Nil	-

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.	-	Nil	-

<table>
<tr><td>HWOM Rules 9</td><td colspan="4">Utilisation of hazardous and other wastes</td></tr>
<tr><td>Current Status</td><td>Desirable Level</td><td>Gap</td><td colspan="2">Proposal for attending gap</td></tr>
<tr><td>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 - 31 Nos,
2. Waste oil – 21 Nos,
3. Lead bearing waste including battery waste – 25 Nos,
4. Paint & Ink sludge/ residue – 1 No,
5. Zinc & Zinc Ash – 13 Nos
6. Copper Scrap – 7 Nos
7. Brass Dross – 1No.
8. Spent Catalyst – 1No.
9. E-Waste – 3 Nos.
10. Recovery of solvents – 12 Nos
11. Waste __ chromate – 3 Nos
The Board has authorized 14 cement plants for co processing of 18.41 Lakhs MT per annum of utilizable wastes in cement kilns. During the year 2021-22, about 2.18 lakhs MTof 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 – 50000TPA
M/s Sandhiya Enviro Tech System – Villupuram- 3463 TPA
M/s Cheenu Enviro Management – Coimbatore – 45000 TPA
M/s Arunachalaa Enterprises - Karur – 60000 TPA
<table>
<tr><td colspan="2">Recyclable/Utilizable Waste Disposal for the period 20201-22</td></tr>
<tr><td>Recyclable Hazardous Waste generation (T/A)</td><td>Utilizable Hazardous Waste Generation (T/A)</td></tr>
<tr><td>1,14,447.16</td><td>5,92,709.771</td></tr>
</table>
</td><td>-</td><td>Nil</td><td colspan="2">-</td></tr>
</table>

Hazardous waste recycled through Recyclers - 110` Nos (Authorized capacity – 719090.2 T/A)	Hazardous waste Utilized through utilizer, pre processer &Co processing in cement plant - (Authorized capacity – 6292290 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 2 Nos of TSDF facilities located in Tamilnadu. M/s Tamilnadu Waste management Limited, Export Promotion Industrial Park (EPIP), SIPCOT Gummidipoondi, Tiruvallur District (Permitted capacity Land fillable – 100000 T/A & Incineration –8000 T/A)(capacity 1.5 T/hr)	-	Nil	-

Land fillable Hazardous Waste Disposal for the period 2021-22			
Land fillable HW received (T)	Land fillable Hazardous Waste Disposal (T)	Incinerable HW received (T)	Incinerable Hazardous Waste Disposal (T)
71957 MT	71132 MT	4322	3935

M/s Tamilnadu Waste management Limited, Undurumikidakulam, A Mukkulam Village, ThiruchuliTaluk, Virudhunagar District(Permitted capacity Land fillable –

240000 T/A)

Land fillable Hazardous Waste Disposal for the period 2021-22	
Land fillable HW received (T)	Land fillable Hazardous Waste Disposal (T)
39912.73 MT	39912.725 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, labelling& manifest system is followed by Hazardous waste generators/TSDF/Recyclers/ pre processor TSDF vehicles are fitted with GPS arrangement	-	Nil	-

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	-

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. However no EC has been received from any units for violation of HW since Oct 2022.	-	Nil	-

Thematic Area: 5. Compliance of E-Waste Management Rules 2016

Thematic Area:3(V)	Compliance of E-Waste Management Rules,2016		
Current Status	**Desirable Level**	**Gap**	**Proposal for attending gap**
• National Productivity Council has been entrusted with E-waste inventorisation for the State of Tamil Nadu and they submitted the report to the Board on 12.10.2021 • The Annual Report 2021-22 furnished to CPCB by TNPCB that E-waste collected and channelized to the authorized dismantlers / recycler is 31143.21 tons as against 28305.89 tons in the year 2020-2021 • TNPCB has authorized 38 Dismantlers and 4 Recyclers. • 132 Producers in the State have obtained EPR Authorization from the CPCB • TNPCB vide proceedingdated 26.09.2019 has issued direction under Section 5 of Environment (Protection) Act,1986 to all the Local Bodies in the State to segregate e-waste and channelize the same to the authorized dismantlers/ recyclers. • TNPCB vide proceeding dated 26.09.2019 has nominated nodal officers to monitor the compliance of the said Directions ➢ Member Secretary, TNPCB - State Level ➢ District Environmental Engineer- Dist. Level ➢ Commissioner/Executive Officer ➢ Corporation/Municipality/Town Panchayat • In coordination with Saahas waste management company, Bangalore, TNPCB has launched E-waste awareness campaign at Maraimalai Nagar, Chengalpattu on 12th October 2022.	• As per the E-Waste Management Rules, 2016, all the e-waste generated shall be channelized to authorized dismantler or recycler. • All the Producers shall get Extend Producer Responsibility (EPR) authorization from CPCB and implement EPR plan.	Refurbishers of 790 numbers need to come under the purview of e-waste Rules	• Based on the inventorisation of E-waste generation for the State of Tamil Nadu, action is being taken to bring the stakeholders under the purview of e-Waste Management Rules, 2016. • TNPCB is in the process of verifying EPR Authorized producers, collection centres, dismantlers, recyclers on quarterly basis and submitting report to CPCB periodically.

Thematic Area: 6. 351 Polluted River Stretches in the Country (6 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-I** (BOD > 30 mg/l).The CPCB data as on Sep-2018 the level of BOD is 78.0 mg/l. Current Status as on December 2022, the values of BOD - 18 mg/l , DO – 2.1 mg/l and FC – 330 MPN/100ml 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 December 2022, the values of BOD – 9 mg/l, DO – 3.6 and FC – 260 MPN/100ml. 3. **River Vasista** (Manivilundhan to Thiyaganur Stretch-10Kms) – **Priority-I** (BOD > 30 mg/l), The CPCB	To bring the river water fit for bathing standards (Class-B standard), the following parameters are to be achieved: a. Bio-chemical Oxygen Demand (BOD) <3.0 mg/l b. Dissolved Oxygen more than 5.0 mg/l c. Faecal Coliform <500MPN/100 ml.	There is a gap in satisfying the water quality standards in respect of Rivers sarabanga, Tirumanimutharu and Vasista. It will be corrected when e-flow is maintained and action plan is completed. In respect of rivers Cauvery, Bhavani and Tamiraparani the standards are satisfied.	➢ The timeline (upper limit) for execution of action plans for the polluted river stretches 31.03.2021 as per the Hon'ble NGT (PB) orders dated 08.04.2019 in O.A No. 673 NGT /2018. ➢ 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

data as on Sep-2018 the value of BOD is 675.0 mg/l. Current status as on December 2022, the values of BOD -90 mg/l, DO – Nil and FC – 11000 MPN/100ml. 4. **River Cauvery** (Mettur to Mayiladuthurai Stretch-200Kms) - **Priority-I**(BOD > 30 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 December 2022, the values of BOD is <2 to 3.6 mg/l, DO 5.2 to 8.1 mg/l and FC 12 to 47 MPN/100ml. 5. **River Bhavani** (Sirumugai to Kalingarayan Stretch-60Kms) - **Priority-IV** (BOD 6.0 to 10 mg/l), The CPCB data as on Sep-2018, the BOD is 3.3 to 6.6 mg/l. Current status as on December 2022, the values of BOD < 2 mg/l, DO – 5.9 to 6.9 mg/l and FC 17 to 27 MPN/100ml. 6. **River Thamirabarani** (Pappankulam to Arumuganeri Stretch-80Kms) - **Priority-V** (BOD 3.0 to 6.0 mg/l), The CPCB data as on Sep-2018 BOD is 3.1 to 4.0 mg/l. Current status as on December 2022, the values of BOD < 2 to 2.7 mg/l, DO 6.4 to 7.1 mg/l and FC 4.0 to 10.0 MPN/100ml. ➢ Action plans for six polluted river stretches (Priority I: 2 Nos, Priority II – 1, Priority III – 1, Priority-IV: 1 No. Priority-V: 1 No.) were submitted to the CPCB. • As per the Hon'ble NGT (PB) order, the action			polluted river stretches in Tamil Nadu. RRC meeting was convened on 20.04.2022 by the Chief Secretary to government with the concerned line departments and requested to 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

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 communicated to the CPCB. • Action Taken Reports on the action plans for the six polluted river stretches for the period up to August-2019 were received from the line departments concerned, compiled and copy circulated to the RRC members and also furnished to the CPCB vide this office letter dated 17.09.2019. ➢ 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 2022 Action Plans are being prepared in co-ordination with the line departments.			its Tributaries including the Rivers Sarabanga, Thirumanimutharu and Bhavani and Detailed Project Report (DPR) is prepared. For the above project, PWD is the co-ordinating agency. Then Hon'ble Chief Minister of Tamil Nadu has also announced in the assembly for the rejuvenation of River Thamirabarani similar to River Cauvery Rejuvenation program. Also, the then Hon'ble Minister for MA&WS Department has announced in the assembly for the rejuvenation of the Rivers Cauvery, Vasista, Sarabanga, Bhavani and Tamirabarani by constructing STPs in the nearby Town panchayats along the River stretches.

➢ 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 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 time limit specified for the 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 20.04.2022 under the Chairmanship of Chief Secretary with the Principal Secretary, Environment & Forests Department with			➢ 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. In this regard, letters were addressed to the PWD Government of Tamil Nadu for a commitment for reimbursement and the same is awaited. It is under the consideration of the Government.

the RRC members and line departments concerned to review the action plans for the rejuvenation of River Bhavani under priority-IV. The priority has been reduced to V by CPCB. ➢ River Bhavani action plan was recommended / approved with certain conditions by the CPCB Task Team vide CPCB letter No. F.No. A-14011/1/2020-WQM-I/301 dated: 11.03.2020. The action plans for Polluted River stretches such as River Sarabanga, Thirumanimutharu, Vasista, Cauvery and Bhavani have been approved by the CPCB Task Team. 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. ➢ Based on the suggestions of the task team, details requested from the Commissioner of Municipal 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. ➢ 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		**Industrial Pollution:** No Industrial discharge into the environment. **HW**- No gap **BMW-** No gap PWD(WRD) Rain Water Harvesting: 119 Nos. provided **Ground Water Regulation:**683 Nos. of illegally operated packaged drinking water	On continuous persuasion and efforts of Tamil Nadu Pollution Control Board, the priorities of the Polluted River Stretches has been reduced 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. Qty. Of sewage generated -3938.29 MLD Treatment capacity (STP)- 2172.47 MLD Treatment capacity (FSTP)-0.924 MLD Sewage being treated through Alternate Technology:957 Under Construction : 467.25 MLD Gap- 340.646 MLD

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. ➢ 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. ➢ 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		units closed.	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 – 38 STPs and 5 FSTPs to bridge the gap. **MSWs** Generation : 15,523 TPD Treatment Facility : 9,702 TPD Under Construction : 1,532 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 in Tamil Nadu State. **Reuse of treated Waste water**- 81 MLD PWD(WRD)

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 December 2022 has been submitted to NMCG-Ministry of Jal Shakthi with a copy to the CPCB. ➢ River Rejuvenation Committee meeting was conducted on 22.11.2021 under the Chairmanship of Principal Secretary, Env. Climate Change & Forests Dept. The Principal Secretary reviewed the progress of action taken on Polluted River Stretches 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			Rain Water Harvesting : Existing – 119 Nos Under Construction – 22 Nos. Proposed – 283 Nos All the line departments have been addressed from this office continuously to complete the works as per the 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.

20.04.2022 and requested the line departments to expedite the works. ➢ 15th Central Monitoring Committee meeting was held on 10.01.2023 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 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 flood plain zone regulation, Rain Water Harvesting structures & development of Biodiversity parks etc., e) Action plan management of pollution in coastal areas/States. ➢ The Hon'ble NGT issued final directions as below in			• Every Quarter the Central Monitoring Committee meeting is conducted. • River Rejuvenation Committee meeting is conducted frequently.

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 • 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.			• The line departments are addressed frequently to complete the works as per the River Action Plans from the TNPCB. • 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)

Current Status (PM_{10} - $\mu g/m^3$)	Desirable level (<PM_{10}-60 $\mu g/m^3$)	Gap	Proposal for attending gap
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	Reduction of PM_{10} in Thoothukudi town, Trichy, Madurai and Chennai	The current annual values of PM_{10} for the year ended March-2022 is considerably lower ie at 90 Microgram / cubic meter in Thoothukudi for the year 2021-2022 when compared to the previous years. But it is still above the annual standard value of 60 microgram/cubic meter. Whereas PM_{10} values of Chennai Madurai and Trichy are well within the ambient air quality	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 order issued. 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 IITM. As per the *direction III,* The shifting, prohibiting

FY 2022-23 has been submitted in the PRANA 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 1. 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			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. The fifteenth finance Commission has released a sum of 181 crores, 31 crores and 21 crores were released as grants to million plus

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 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			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, 15 Cr, and 11Cr for the cities Chennai, Madurai and Trichy respectively in the month of March 2022. 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, 16 Crore for Madurai and 11 Crores for Trichy for the implementation of CPCB approved City Action Plan. 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

community involvement programme and setting up of data grids on all levels. iv. NTF may also evolve and oversee parameters for interse 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 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.			Grants" for the implementation on ambient air quality component in the Million plus Challenge fund for Million Plus Cities/ Urban Agglomerations under XVFC Grant Hotspots action plan is under preparation for the identified hotspot area of NACs In addition to hotspots identified by the TNPCB, the Indian Institute of Technology, Madras (IoR-Institute of Repute under NCAP) is under process of identification and the hotspots and its action plan in NACs and nearby NACs.

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- 14 No Trichy-20 No Madurai-13 No Thoothukudi-5 No			

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 /Severely Polluted

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. The CEPI

Gap

Name of Polluted Industrial Area (PIAs) in Tamilnadu	CEPI Score	Desira -ble 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 (PIA"s) 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 2020	Post monsoon 2020	Pre monsoon 2021	Post monsoon 2021	Pre monsoon 2022
1.	Manali	56.57	32.93	40.604	40.6	31.0
2.	Ranipet	22.18	22.18	21.792	21.8	22.2
3.	Tiruppur	38.07	46.99	29.49	32.398	29.5
4..	Mettur	21.28	24.18	27.48	21.39	25.5
5.	Thootukudi	44.95	42.17	41.96	41.7	17.6

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

6..	Coimbatore	28.29	35.51	35.00	35.21	19.6
7.	Cuddalore	31.12	31.12	36.36	36.36	36.7
8.	Erode	20.27	50.69	49.73	21.39	49.7
	Erode-Pallipalayam	-	-	-	-	13.1
	Erode-Kumarapalayam	-	-	-	-	26.7
	Erode-Perundurai	-	-	-	-	19.1

CEPI score >70 - Critically Polluted area.
CEPI score between 60 to 70 - Severally Pollution area
CEPI score between 50 to 60 - Normally Polluted area
CEPI score 40 to 50 - Other Polluted area

Pre-monsoon 2022 was conducted for the 8 Polluted Industrial Area (PIA's).

The Environmental Quality Survey for newly modified Erode CEPI areas including Pallipalayam, Kumarapalayam and Perundurai for pre-monsoon 2022 was carried out and CEPI score arrived. The CEPI scores were sent to CPCB.

Post-monsoon 2022 study has been carried out. Report is under preparation.

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 (Metrowater) 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 13 Sewage Treatment Plants. ✓ In Chennai city, Chennai Metropolitan Water Supply and Sewerage Board is	100%		CMWSSB has set itself an ambitious target for recycle and reuse by 2030 At Present – 13% 2025– 25 % 2030– 50%

providing sewerage services including wastewater treatment, reuse of treated water and power generation from Sewage Treatment Plants. Sewage Treatment Plants at Chennai have an installed capacity of 745 MLD. The present Utilization is 600 MLD Avg (80.53%), an increase of 10% from the Utilization in 2019 at 532 MLD Avg (71.14%)). Quality monitoring: ✓ All the 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 at 80%, however Septage collection improvements from 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 installments. A total of 50,580 house sewer connections have been given after 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. A total of 11,839 house sewer connections have been given after 2019 under this scheme. Septage Collection ✓ To collect fecal 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 Shollinganallur. ✓ 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 June 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 will be completed by June 2023. 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 31. MLD, Nesapakkam TTUF 10 MLD and 50MLD STP, Modular STPs of 1.0MLD, 1.2 MLD, 4.0MLD and 0.6 MLD at Chetpet, Nungambakkam, 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 inflow of sewage received, treated and discharged in Chennai city is 600 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 now. ✓ 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 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 71 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 .			
➢ Out of the 138 ULBs, Under Ground Sewerage Schemes have been taken up			CMA has set itself an

for implementation in 58 ULBs and completed in 48 ULBs and others are in various stage of implementation. ➢ In UGSS completed towns, 60 no. of STPs completed & functioning. ➢ In 15th Quarterly report, it is reported as 16 no. of STPs work were under progress in 13 ULBs. Now in that, 9 STP's are completed in 6 ULBs and remaining 7 STPs are under progress in 7 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	**100%**		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.

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

Thematic Area :3(X)	Status of CETPs/ETPs including performance:		
Current Status - **March-- 2023**	Desirable Level	Gap	Proposal for attending Gap
Compliance status of ETPs: No. of Industries which require ETP: **12587** No. of Industries having functional ETP: **12586** No. of Industries complying: **12536** No. of Industries non-complying: **50** Show cause notice issued: **3** Closure directions issued: **47** 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.	50 IETPs	Further action will be initiated on receipt of the reply for Show cause notice from the 7 IETPs units.
Compliance status of CETPs: **(March-2023).** No. of CETPs: 36 No. of CETPs complying: 32 No. of CETPs non-complying: 4 Show cause notice issued: 3 Closure directions issued: 1 No of CETPs against which action is under process/any other (prescribed): 0	All the CETPs to achieve the standards prescribed by the Board.	4 CETPs	Further action will be initiated on receipt of the reply for Show cause notice from the 3 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%.	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" has been prepared and sent to Government.

<table>
<tr><th>Current Status</th><th>Desirable Level</th><th>Gap</th><th>Proposal for attending gap</th></tr>
<tr><td>As per Ground Water Resources Estimation Committee (GEC 2015) methodology, State Ground and Surface Water Resources Data Centre (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:

<table>
<tr><th>S.No</th><th>Categorisation based on extraction</th><th>No of Firkas</th></tr>
<tr><td>1</td><td>Over Exploited (More than 100%)</td><td>435</td></tr>
<tr><td>2</td><td>Critical (90% to 100%)</td><td>63</td></tr>
<tr><td>3</td><td>Semi Critical (70% to 90%)</td><td>225</td></tr>
<tr><td>4</td><td>Safe (Less than 70%)</td><td>409</td></tr>
<tr><td>5</td><td>Saline</td><td>34</td></tr>
<tr><td colspan="2">TOTAL</td><td>1166</td></tr>
</table>

The categorization as per the Re – Estimation of Dynamic Ground Water Resources of Tamil Nadu State is being carried out once in three years. The comprehensive over all reassessment of Dynamic Ground Water Resources of Tamil Nadu state as on March 2020 has been completed by State Ground and Surface Water Resources Data Centre wing in coordination with CGWB. and Government was issued order vide G.O. (Ms). No.15, Water Resources (R1) Department, Dated 28.03.2023.</td><td>WQ</td><td></td><td>Water quality monitoring is a continuous</td></tr>
</table>

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 districts, such as, Coimbatore, Erode, Dharmapuri, Karur, Madurai, Namakkal, Perambalur, Ramnad, Salem, Tanjavur, Trichy, Trippur, Tiruvarur, Tiruvannamalai, Thoothukudi, Tirunelveli, Viruthunagar and Villupuram are found to have excess nitrarte ion concentration. Similarly Districts like Coimbatore, Dharmapuri, Erode, Kancheepuram, Karur, Madurai, Namakkal, Ramnad, Salem, Trippur, Tiruvallur, Theni, Thoothukudi, Tirunelveli, Viruthunagar and Vellore, are having fluoride ion concentration beyond the desirable limit for drinking purpose. In the same way districts like Dindigul, Madurai, Pudukottai, Ramanathapuram, Sivagangai, Trichy, Thoothukudi, Tirunelveli and viruthunagar are having Total Dissolved Solids (TDS) values beyond the prescribed value for potable purpose.

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

paremeters limits for potable purpose

Nitrate: <50mg/l

Fluoride: <1.5mg/l

TDS: <2000mg/l

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 January 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.

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). TN IAM (Irrigated Agriculture Modernisation) Project (TNIAMP- I) (42 Recharge wells).			Also few Artificial Recharge Structures are now proposed & and some are under execution. **TNIAMP- Phase I** For Ground 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 are in progress. 6 Nos. Recharge wells in progress. 6 Nos. (to be taken up due to water stagnation).

Under Jal Shakti Abhiyan by Rural Development and Panchayat Raj Department

Reuse and Recharge Structure – 38780 Nos.
Water Conservation and Rain Water Harvesting – 12433 Nos.

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

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. 4 Nos. of Recharge wells work in progress and 12 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 (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).

2. TNIAMP

Details of works under taken under TN IAM Project			
Sl. No.	Phase	No.of Tanks	Estimate Amount (Rs. in Lakh)
1	Phase I	1382	75352.33
2	Phase II	906	61775.07
3	Phase III	329	18272.89
4	Phase IV	12	
TNIAMP Total		2629	155400.29

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

In 2015-16 - 104 Nos. of tanks have been renovated.
2017-18 - 49 Nos. of tanks have been renovated.
2020- 21 - 83 tanks renovation works all in progress.
2021- 22 - 200 tanks to be taken up.

b)Rural Development and Panchayat Raj Department
Total 1725 No. of water bodies renovated by Rural Development and Panchayat Raj Department

Water Conservation Scheme

Proposal has been sent for 3129.98 Crores with the following breakup

WRD, GW wing – 439.35 Crore.
Agricultural Engineering Department – 649.00 Crore.
Greater Chennai Corporation – 101.6 Crore.
Rural Development Panchayats – 1601.12 Crore.
Municipal Administration and water supply Department– 311.28 Crore.
Directorate of Town Panchayats -27.63 Crore.

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 complaint.	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 Dec- 2022	12,479	1,75,30,827
2	Jan -2023	132	55,000
3	Feb -2023	139	2,88,000
4	March -2023	87	0
TOTAL		12,837	17873827

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 31.12.2022	**Status upto 31.03.2023**	**Status as on 31.03.2023**	
Greater Chennai Corporation	210	173	186	12	12
Directorate of Municipal Administration	739	287	289	195	255

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 31.12.2022	Status upto 31.03.2023	Status as on 31.03.2023	
Commissionerate of Town Panchayats	2212	1182	1499	248	465
Rural Development and Panchayat raj Department	91819	33135	33135	0	58684
Public Works Department	14341	5340	5340	1095	7906
Hindu Religious and Charitable Endowment Department	2359	2198	2198	16	145
Total	**111680**	**42315**	**42647**	**1566**	**67467**

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 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.

3.3 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.

3.4 Rural Development and Panchayat raj Department

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 36 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 has 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 will be done by engaging machineries and the reconstruction of appurtenances like Inlets, outlets, sluices, surplus weirs etc., will be done under MGNREGS, to the tune of Rs.750 Crores.

Under Kudimaramathu Scheme, 28,623water bodies consisting of 4,984 Minor Irrigation tanks and 23,639 Ponds and Ooranies has 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.The rest of the water bodies will be restored in a phased manner in 3 years.

The Detailed Field Survey to assess the condition of the MI tanks and Ponds/Ooranies in conjunction with the revenue records and to assess the nature and extent of encroachment is currently under progress. The creation of Database of Rural Water Bodies in tnrd website is also under progress.

3.5 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 7 water bodies taken for rejuvenation and in progress.

3.6 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	(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	

Management and other associated issues	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 42647 numbers of water bodies have been restored and 1566 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	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 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 Coli form.	The required details such as 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	**The TNPCB has proposed to engage National Centre for Coastal Research, Chennai for preparing action plans to avert pollution.** **The Master sheet for the location of all the coastal districts in Tamil Nadu was prepared and submitted to CPCB.** **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 and meeting on "Preparation of time bound comprehensive action plan to mitigate coastal and marine pollution along the Coastal stretches of Tamil Nadu is proposed to be held at the earliest. 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.

IN THE HON'BLE NATIONAL GREEN TRIBUNAL PRINCIPAL BENCH

ORIGINAL APPLICATION NO. 606 OF 2018

Directorate of Rural Development and Panchayat Raj

In Tamil Nadu, Rural population is about 51.60% according to 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 is also focussing on brining behavioural change among all households by creating awareness on Sanitation and Solid & Liquid Waste Management practices.

STATUS OF SOLID WASTE MANAGEMENT

In rural areas, segregated solid waste from households is collected at door to door through Thooimai Kaavalars on daily basis. This collected solid waste is transported to the nearest collection, segregation and storage point, which was constructed under 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 vermi-compost 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 94 % 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 Vermi Composting Unit.
- 287 Micro Composting Centers are available at Districts with a capacity to process 246 MT/Day.
- 13 Modular Bio Gas Plants with a capacity of 490 kg/d is currently functioning in 5 districts of Tamil Nadu for processing the wet waste.
- 5 Bio methanation Plant 13MT capacity is functional in 5 districts of Tamil Nadu for processing the wet waste.

Dry Waste Processing: -

- 247 Plastic Waste Management Unit 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 aerial distance of 20 kms were done.

Steps taken to reduce Gap:

- 5,494 Village Panchayats are taken up for saturation in solid and liquid waste management as per Annual Implementation Plan 2021 - 22 & 2022 – 23. Details of the proposed work which are under construction and taken up in AIP is given below

Table 2: Details of proposed Solid Waste Management activities in Village Panchayats

S. No	Works to be proposed	No. of works proposed	Cost (Crore)	Status
1	Tricycles	4,193	11.09	Action is being taken for provision of infrastructure facilities
2	Pushcarts	5,983	12.66	
3	E-Carts	4,169	103.42	
4	Plastic Storage Shed	1,209	14.49	
5	PWMU	244	39.04	
6	Modular Bio Gas Plants	3	0.29	
TOTAL			**180.99**	

- Each Village Panchayat can extend their community compost unit based on the waste generation. Hence there will be no gap in wet waste processing in all Village Panchayat.

All the above steps are taken to enhance the collection and processing in SWM.

BEST PRACTICES:

Namma Ooru Superu Campaign

'நம்ம ஊரு சூப்பர்' – Namma Ooru Superu' special campaign was launched on August 15th 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 completed at all Public Places and Institutions on different weeks from August 15th to October 2nd.

1. Mass Cleaning of Public Institutions/Places (20nd August, 2022 – 2nd September, 2022)
2. Awareness in Schools & Colleges on Water, Sanitation and Waste Management (27th August, 2022 – 9th September, 2022)
3. Awareness on Water, Sanitation and Waste Management at Households through Self Help Group (SHG) Members and at Institutions (3rd September, 2022 – 16th September, 2022)
4. Ban on Single Use Plastics and use of alternatives to SUP (17th September, 2022 – 23rd September, 2022)
5. Clean and Green Villages (24th September, 2022 – 1st October, 2022)

Achievements of the Campaign

During the campaign period around 47,339 Garbage Hotspots, 16,829 Public Places, 21,775 Schools, 22,695 Anganwadis, 45,824 Govt. Buildings/Institutions, 47,949 water bodies, 10,011 Community sanitary complex, 15,69,348 m of Drainages were cleaned by the active participation of Public.

Awareness in 13,659 schools and 343 Colleges were done by active Motivators, SHG/PLF members. Also, in one weeks of time around 4 lakh trees were planted during the campaign period. These were some of the achievements of the campaign.

STATUS OF GREY WATER MANAGEMENT

Grey water generation and treatments: -

There are 12,525 Village Panchayats in Tamil Nadu and the estimated grey water generation at present is 1,130 MLD. The majority quantity of grey water generated from rural household is absorbed in-situ through Kitchen gardens and Individual soak pit. About 956 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 convergence of Government schemes like Swachh Bharat Mission (Grameen), 15th Central Finance Commission and Mahatma Gandhi National Rural Employment Guarantee Scheme.

Capacity Addition for Grey Water Treatment

In order to fill the gap in treatment of 173 MLD, Grey water treatment infrastructures like Individual Soak Pit, Community Soak Pit, Horizontal Filter, Vertical Filters and other GWM systems (Phytorid, Waste Stabilization Pond, Root Zone Treatment System, Soil Bio Technology etc.,) are proposed.

Grey water of 204 MLD can be treated with the proposed infrastructures. Hence, the gap in grey water treatment will be overcome through addition of above infrastructures

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.

Table 3: Details of Grey Water Management in Village Panchayats, Tamil Nadu

Category	Quantity of Grey Water generation (MLD)	Current treatment capacity (MLD) **Mar 2023**	Current gap in treatment (MLD) **Mar 2023**	Utilization of treated sewage in MLD		
				Agriculture/ Horticulture purpose	Industrial purpose	Any other purpose
DRD & PR	1130.00	956.88	173.12	-	-	-

Steps taken to reduce gap:

Table 4: Treatment Units under construction/proposed – Village Panchayats

S. No.	Category	Capacity (MLD)	Cost in Cr	Fund Source	Status
1	Individual Soak Pits (7,00,000 Nos)	105.00	840.00	MGNREGS	Work is being executed as per target
2	Community Soak Pits (1,00,000 Nos)	40.00	145.00	SBM (G) / 15th FC / MGNREGS	
3	Vertical Filters (6,865 Nos)	34.33	96.80	SBM (G) / 15th FC / MGNREGS	
4	Horizontal Filters (4,418 Nos)	22.09	67.15	SBM (G) / 15th FC / MGNREGS	
5	Other Grey Water Management Facilities (45 Locations)	3.15	22.50	SBM (G) / 15th FC	
Total		204.57	1171.45		

Linking of 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 mapping exercise for clustering is in progress
- The FSTP proposed in rural areas will be handed over to the concerned panchayat after completion for further O&M.
- 22 Village Panchayats have been linked with FSTP of Shenkottai Municipality in Tenkasi District with proper MoU. Also, one STP of capacity 40 KLD is functional in Melmaruvathur Village Panchayat.

In Progress:

- MoU for linking Kinar Village Panchayat of Chengalpattu District with FSTP of Karunguzhi Town Panchayat is in progress
- MoU for linking Mudichur Village Panchayat of Chengalpattu District and Varadharajapuram of Kancheepuram District with STP of Tambaram Municipality is in progress

VILLAGE SANITATION SATURATION PLAN

Village Sanitation Saturation Plan (VSSP) is being prepared by all 12,525 Village Panchayats to address the gap in solid waste management and liquid waste management. VSSP will be verified by Block and District level official.

All Districts were instructed to expedite the preparation of VSSP for all Village Panchayats and take up the work in solid & liquid waste management based on annual implementation plan target. So far 12,150 VSSP are prepared and around 12,100 verified at district level.

Table 4: Timeline for saturation of Village Panchayats in Solid and Liquid Waste Management

S.NO	NO. OF VILLAGE PANCHAYATS TAKEN UP FOR SATURATION IN SLWM	YEAR OF SATURATION BASED ON ANNUAL IMPLEMENTATION PLAN
1	776	2021 -2022
2	4718	2022 - 2023
3	4723	2023 - 2024
4	2308	2024 - 2025
TOTAL	**12,525**	

Based on the above works/procurement will be taken up in Village Panchayats for saturation and it will also be completed within that financial year as per AIP.

Chief Secretary to Government
State of Tamil Nadu

//True Copy//

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

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)	1218.00	1320.62	-	-
3.	Status of Sewerage System (in Km)	5572.69	-	-	-
4.	No. of STPs (Details to be provided as per Annexure)	60	16	-	-
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	2	Ukkadam	Lat : 10.98315765 Lon : 76.97252296	2012	Operational	70.00	35.00	SBR	CTO Obtained	7.5	9	36	8
			Ondiputhur	Lat : 10.9871063 Lon: 77.001327	2017	Operational	60.00	6.00	SBR	Renewal Under Progress	7.2	8	32	6
2	Vellore	1	Muthumandapam	Lat :12.932166 Lon: 79.135616	2015	Operational	10.28	8.00	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	3.00	ASP	CTO Obtained	7.8	26	112	18

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
4	Tiruchirappalli	1	Panjapur	Lat - 10.45'6" Long - 78.39'32"	30.09.2007	Operational	58.00	58.00	WSP	Steps taken to apply CTO for the year 2020-21	7.34	42	64	6
5	Avadi	1	Mukthapudupet	13.149045, 80.059462	July 2017	Operational	4.00	1.00	SBR	CTO Obtained	7.52	8	72	7.9
	Avadi	1	Paruntthipattu	13.109928, 80.104318	September 2021	Operational	36.00	6.00	SBR	CTO applied	7.77	-	96	8

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
6	Madurai	2	Sakkimangalam & Avaniyapuram	**Sakkimangalam** Lat: 9.899924 Long: 78.190997 **Avaniyapuram** Lat: 9.871233 Long: 78.10473	01.03.2011	Operational	170.70 MLD (45.70 + 125.00) MLD	39.00	SBR	CTO Obtained	7.88	12	64	13
7	Tirunelveli	1	Ramaiyampatti	8.7568547 77.6829877	2007	Operational	24.20	10.00	WSP	CTO Obtained	7.35	810	144	46
8	Thanjavur	1	Salaikara Street	10.78512 79.157975	26.02.2003	Under Renovation	28.05	14.15	ASP	CTO Obtained	7.39	24	88	10
9	Tiruppur	1	Sarkar periyapalayam	11°08'02'N, 77°24'45'E	01-09-2009	Operational	15.00	8.50	EASP	CTO Obtained	7.8	12	40	12
10	Erode	1	Peelamedu	NL 11'20'18' EL 77'44'22'	22-12-2018	Operational	50.55	27.00	MBBR	CTO Obtained	7.57	20	115	10

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
11	Salem	1	Vellakuttai	11°39'14" N - 78°10'12" E	01.03.18	Operational	13.00	11.00	ASP	CTO obtained	7.94	120	384	96
		1	Anaimedu	Anaimedu - 11°39'42" N - 78°9'52"E	01.03.19	Operational	6.00	5.00	MBBR	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	35.00	8.00	FAB	CTO obtained	7.11	64	128	24
		1	Vandipettai	11°39'0" N - 78°8'33"E	2021	Operational	44.00	1.00	FAB	CTE obtained	-	-	-	-
12	Cuddalore	1	Devanampattinam	11.753832 79.780407	2016	Operational	12.25	6.70	ASP	CTO Obtained	7.97	14	96	22

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
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	Renewal of CTO is in progress	7.81	12	154	8
15	Pallavapuram	1	Perungudi	Latitute: 12.9568105 Longitude: 80.2361331	2003	Operational	115 (CMWSSB STP - Perungudi)		ASP	STP belongs to CMWSSB-Perungudi				
16	Tiruvallur	1	Sivam Nagar	Latitute: 13.12118 Longitude: 79.9259	17.2.2017	Operational	6.20	5.50	MBBR	Application submitted to CTO	7.17	14	88	9
17	Thiruvannamalai	1	Manalurpet Road	Latitude-	2014	Operational	8.70	4.75	ASP	CTO obtained	6.4	48	214	32

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
				12.21663355 Longitude-79.06861122										
18	Viluppuram	2	Kakuppam	Lat :11.957374 Lon:79.504349	26.06.2014	Operational	12.50	8.80	ASP	CTO obtained	7.2	12	72	11
			Erumanthangal	Lat - 11.944019 Lon - 79.514268						CTO obtained	7.2	12	72	11
19	Arakkonam	1	Silverpet	Silverpet 13.110069'N 79.698920'E	Trial run commenced from 15.11.2019	Operational	11.04	2.00	ASP	CTO obtained	7.79	18	193	15
20	Bodinayakkanur	1	Bodinayakkanur	Lat - 10.0179204, Lon - 77.3590704	27.2.2019	Operational	12.08	4.00	ASP	CTO Obtained	7	-	32	4
21	Chinnamanur	1	Chinnamanur	Latitute-9.850333 Longitude-77.385067	01.04.2012	Operational	3.99	3.72	ASP	CTO Obtained	7.2	24	192	16

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
22	Periyakulam	1	Periyakulam	Latitude-10.1256415 Longitude-77.561725	2017	Operational	5.47	4.00	ASP	CTO Obtained	7.7	28	120	20
23	Ramanathpuram	1	Kaluguoorani (Viilage)	Lat :9.369763, Lon : 78.830838	06.11.2013	Operational	7.00	5.80	MASP	CTO Obtained	7.87	8	0	7
24	Theni-Allinagaram	1	Karuvelnayakan Patti, Theni (Veeranayakan Patti)	9.999, 77.502	08.06.2015	Operational	12.05	9.50	ASP	CTO Obtained	7.5	16	96	14
25	Dharmapuri	1	Chettikarai	12`9`1.85`` 78`10`50.14``	05.07.2014	Operational	4.86	3.50	ASP	CTO Obtained	7.04	28	176	19.5
26	Karur	1	Arasu Colony, Panchama devi Village	latitude : 10.97 997, Longitude: 78.09 548	30.04.2007	Operational	15.00	5.63	EAP	CTO obtained	7.11	26	71	24

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
27	Krishnagiri	1	Derasamuthiram Eri	Latitude 2 30'25.48" N &Longitude 78 30'25.48" E	15.7.2017	Operational	12.34	8.00	ASP	CTO Renewal Under progress	7.45	26	128	16.5
28	Namakkal	1	Sendamangalam road	11.13'33" N 78.10'23" E	01.10.2014	Operational	5.00	5.00	ASP	CTO Obtained	6.39	36	76	28
29	Mettur STP-1	3	Thangamapuripattinam	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
30	Kumbakonam	1	Karikulam	10'58'22.09"N 79'24'48.55" E	2009	Operational	17	12.50	ASP	CTO available	7.37	102	48	29
31	Nagapattinam	2	Nagapattinam	Lat: 10.757905	27.02.2016	Operational	9.63		ASP	CTO available	7.25	16	230	15

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
				Long: 79.834479				4.40						
			Nagore	Lat: 10.822428	31.05.2019	Operational	2.69		EASP	CTO available	7.28	20	241	19
				Long: 79.844813				1.10						
32	Tiruvarur	1	Tiruvarur	NL 10°48'29" EL 79°38'17"	01.10.2014	Operational	6.92	4.10	ASP	CTO available	7.09	9	39	11
33	Ariyalur	1	Keezhapalur village	11°04'06.9"N 79°03'19.8"E	28.05.2020	Operational	4.16	1.50	ASP	CTO available	7.35	22	64	5
34	Pudukkottai	1	Maaruppurani	Latitute : 10'21'36" North Longitude: 78'48'33' East	27.7.2016	Operational	10.62	6.00	ASP	CTO renewal under progress	7.16	20	48	12
35	Mayiladuthurai	1	Aarupathi	Latitute : 11.6'21" North Longitude: 79.40'22" East	01.01.2008	Operational	5.85	5.85	WSP	CTO available	7.81	6	32	3

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
36	Perambalur	1	Neduvasal road, Thuraimangalam road.	Lat . 111410.9 N Long. 7852 57. E	06.11.2013	Operational	4.20	3.60	ASP	CTO available	7.27	26	88	10
37	Udhagamandalam	1	Kasthooribai colony	Lat -11.408436 Lon - 76.679469	15.04.2000	Operational	5.00	4.00	ASP	CTO to be Obtained	7.73	32	272	48
38	Udumalaipet	1	Kurinjeri	Lat - 10.59812 Lon - 77.25447	30.06.2016	Operational	7.81	4.00	ASP	CTO Obtained	7.26	28	130	24
39	Virudhunagar	1	Virudhunagar	Lat -9.5654 Long-77.9603	19.10.2014	Operational	7.65	3.80	ASP	CTO Renewal applied on 2.11.2020	6.33	12	16	8
40	Chidambaram	1	Ambalathadikuppam	Lat -11.421 Long- 79.6889	2020	Operational	9.44	6.10	ASP	CTO to be obtained	7.53	26	132	15.2
41	Thirupathur	1	Georgepettai	Lat - 12°29'.05.540" N Long - 78°34'.25.101" E	2020	Operational	11.43	3.00	ASP	CTO obtained	8.33	26	208	8

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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
42	Rasipuram	1	Dhobi colony	Lat -11.453 Long- 78.189	2021	Operational	6.96	3.30	ASP	CTO obtained	7.10	16	45	18
43	Sivagangai	1	Muthupatti	Lat -9.50 Long- 78.27	2020	Operational	4.92	2.00	EASP	CTO to be obtained	7.98	6.40	17	8.50
44	Sathyamangalam	1	Kombupallam	Lat -11.3 Long- 77.14	2021	Operational	4.08	0.50	FAB	CTO to be obtained	Under Trial Run			
45	Tambaram	1	Mannuram Kulam	Lat -12.92 Long- 80.10	2021	Operational	30.00	3.00	SBR	CTO to be obtained	Under Trial Run			
46	Thoothukudi	1	Tharuvaikulam	Lat -8.87 Long- 78.15	2022	Operational	28.00	4.50	SBR	CTO to be obtained	Under Trial Run			
47	Ulundhurpet	1	Moolasamudram	Lat -11.69 Long- 79.28	2022	Operational	3.15	-	EASP	CTO obtained	Under Trial Run			

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
48	Thiruchendhur	1	Thoppur	Lat -8.49 Long- 78.11	2020	Operational	3.90	1.80	ASP	CTO renewal applied	Under Trial Run			
49	Mettupalayam	1	Sikkadasampalayam	Lat -11.3 Long -76.96	-	-	8.65	-	SBR	CTO applied	Under Trial Run			
50	Pollachi	1	Market Road	Lat -10.39 Long -76.59	2022	Operational	11.25	0.65	SBR	CTO applied	Under Trial Run			
51	Sattur	1	Minmini Road	Lat -9.35 Long -77.93	2022	Operational	4.65	1.50		CTO applied	Under Trial Run			
					Total		**998.96**	**415.15**						

FORMAT FOR SEWAGE TREATMENT PLANTS AND UTILIZATION OF SEWAGE AS ON March' 2023

S.No	Location	Capacity of the plant in MLD	Source of fund	Technology
1	Coimbatore – Nanjudapuram	40.00	Jnnurm	SBR
2	Coimbatore – Kuruchi & kuniyamuthur	30.53	AMRUT 2.0/ADB	SBR
3	Karaikudi	16.00	Kfw	ASP
4	Nagercoil	17.66	UIDSSMT	EASP
5	Rajapalayam	21.85	AMRUT 2.0/ADB	ASP
6	Tiruppur (Expansion of existing)	15.00	AMRUT 2.0/ADB	EASP
7	Tiruppur (Sarkarperiyapalayam)	21.00	AMRUT 2.0/ADB	SBR
8	Tiruppur (Chinnandipalayam)	20.00	AMRUT 2.0/ADB	SBR
9	Trichirapalli-STP2	37.00	AMRUT 2.0/ADB	SBR
	TOTAL	**219.04**		

Total treatment capacity = STP installed capacity reported in Oct 2022 + STP installed capacity added in this quarter (Mar 2023)

= 998.96+ 219.04 = 1218 MLD

Format for Solid waste Management - Mar 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)	9906			
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)]	5334			
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 31.06.2023
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)	2028	3085	1057	Sep-23
	(ii)	Number	932	1353	421	Sep-23
	(iii)	Number of ULBs covered				In 392 ULBs, 421 plants Proposed under SBM 2.0
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)	6659	8196	1537	Dec, 2023
	(ii)	Number (MCC)	999	1524	525	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 commenced the work**		
c		Number of dumpsites cleared (No.)	104			
d		Number of dumpsites in which biomining has commenced (No.)	187			
e		Time frame for clearing all dumpsites	**The additional biomining works sanctioned under SBM 2.0 are expected to completed by Oct 2023. Biomining work in Greater Chennai Corporation will be completed in the time frame of 31.12.2023.**			
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 (%)**	87%	87%	Yes
3		**Wet Waste Processing (TPD)**	79%	79%	Yes
4		**Dumpsites capped (No.)**			-
5		**Dumpsites Bio-remediated (No.)**	104	95	Yes

Quarterly report for March-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	-	-	-	

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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.)**	-	-	-