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By email
By speed post

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

Letter No.18583/MA.IV/2018-63, Dated: 06.05.2021

From
Thiru. Harmander Singh, I.A.S.,
Additional Chief Secretary to Government.

To
The Registrar,
National Green Tribunal,
Faridkot House, Copernicus Marg,
New Delhi- 110 001. (w.e)

The Member Secretary,
Central Pollution Control Board,
Parivesh Bhawan, East Arjun Nagar, Delhi – 110 032 (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 2021 and report on the thematic areas - Submitted - Regarding.

Ref:- Orders of the National Green Tribunal Dated 20.08.2019, 16.01.2019, 23.04.2019 and 12.09.2019 in OA.No.606 of 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 2021 including the report on 15 thematic areas to be filed by the Chief Secretary to Government on behalf of the State of Tamil Nadu is enclosed herewith for filing before the Hon'ble National Green Tribunal.

Yours faithfully,

U. Balusamy

for Additional Chief Secretary to Government

Copy to:
Environmental and Forests Department,
Chennai – 600 009.

07/05/2021

Ld. D.R.
17-5-21

10.05.2021
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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

April 2021

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Introduction

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

In Tamil Nadu, Municipal Administration and Water Supply Department has the administrative control over Greater Chennai Corporation, Commissionerate of Municipal Administration and Directorate of Town Panchayat. The Commissioner of Greater Chennai Corporation administers the Greater Chennai Corporation with a population of 6867184. The Commissioner of Municipal Administration manages 14 Corporations (Madurai, Coimbatore, Tiruchirappalli, Salem, Tirunelveli, Thoothukudi, Erode, Tiruppur, Vellore, Dindigul Thanjavur, Hosur, Nagercoil and Avadi) and 121 Municipalities with a Population of 1,87,27,049. Similarly 528 Town Panchayat with a Population of 98,76,996 are managed by the Director of Town Panchayat.

Administration Division and Urban population Details of State of Tamil Nadu

Total Population in Tamil Nadu (As per year 2018)	Urban Population			Total Urban Population	Percentage
	Corporations (15)	Municipalities (121 ULBs)	Town Panchayats (528 TPs)		
80885600	17270010	8324223	9876996	35471229	48.45%

(Source: Census of India & Population Projections for 2018)

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 and the copies of minutes of meeting and the action taken report with respect to Compliance of Solid Waste Management Rules 2016 are being submitted to the Commissionerate of Municipal Administration. The Chief Secretary to the Government of Tamil Nadu has also conducted a meeting through video conference on 15.10.2019 and 05.12.2019 to review the action taken by District Collectors with respect to Compliance of Solid Waste Management Rules 2016.	-	-	Complied

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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.	Achieved	Nil	Complied

• Safety equipments and uniform provided to sanitary workers. • 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 - 97 %	100 %	3 %	Due to urban local bodies being fully engaged in tackling 2nd wave of Covid-19, the dates are pushed bit further
Source Segregation - 74 %	100 %	26 %	

Processing facilities for wet waste Total Waste Generation in 664 ULBs is 13,593TPD ✓ Total wet waste generation is 7222 TPD (53%) ✓ Waste to Compost Processing facilities (Micro Compost Centres) ✓ 1087 MCC sanctioned to process 4035 TPD of wet waste in 15 Corporations and 121 Municipalities and 42 Town panchayats. So far, 901 MCCs with handling capacity of 3159 TPD have been established and processing for 2527 TPD. In GCC, 743 Mulch Pits, 262 Sintex Tank and 3394 units of Well ring with handling capacity of 630 TPD are established. 1 Bio CNG plant is in trial run at a capacity of 50 TPD. 5 Garden waste & tender coconut shells processing plant are functioning for a capacity of 235 TPD. ✓ 876 OCCs are established in Corporations & Municipalities with a handling capacity of 416 TPD as waste to compost and processed for 342 TPD. ✓ 107 Biomethanation plants are established to process 230 TPD of Wet Waste. 529 Windrows and 263 Vermi Composting plants are functioning with capacity of 1242 TPD. ✓ The Overall Processing percentage of wet waste = 72%.	100 %	28%	✓ In GCC, Construction of Six Bio- CNG plant of 100 TPD capacities are in progress and also construction of one Windrow Composting Center capacities of 50 TPD is in progress. ✓ Construction 73 nos of Micro Composting Center at a design capacity of 305 TPD is in progress. ✓ Construction 21 nos of Biogas plant at a design capacity of 11 TPD is in progress Due to 2nd wave of Covid-19 and shortage of labours target dates are pushed bit further.

✓ From June 2016 to March 2021, 132134 MT of compost is generated in 664 ULBs are sold at marginal cost /given at free of cost to farmers/is used in the parks & gardens maintained by ULBs. ✓ 45,250 Tonnes of non-saleable, non-recyclable wastes disposed up to 31.03.2021 ✓ 3,64,225 MT of recyclable waste were sold and Rs.109.67 Crore distributed to sanitary workers for the period from August 2017 to 31.03.2021 ✓ In GCC, Combustible waste as a fuel to Dalmia cement factory of 300 TPD is in force. ✓ To dispose the dry waste generated in ULBs, 438 nos of Material Recovery Facilities/Resource recovery centres has been sanctioned of which 431 Nos are completed and put in use and remaining are in progress. The ULBs having land constraints have established the RRCs in the MCCs. ✓ 45,250 Tonnes Non-recyclable wastes generated are sent to cement plants/ sugar mills/ power plants for usage as fuel. ✓ 6350 MT of non saleable and non recyclable plastic waste have been used for laying 4530 Kms of plastic roads in the last 4 years.			✓ Ten 100 TPD, Seven 10 TPD, one 50 TPD, Eight of 25 TPD and Eleven 5 TPD Incineration plant are sanctioned to process Non recyclable combustible waste and the works are in the various stages. ✓ one 50 TPD, one 10 TPD and Six of 5 TPD Incineration plant is functioning to process Non recyclable combustible waste. ✓ ten of 100 kg (9 nos Completed), two of 20 TPD Pyrolysis plant are sanctioned to process non decomposable and non recyclable waste ✓ 4 nos of Resource Recovery Centes and 1 no of Material Recovery Facility for a total design capacity of 25 TPD is under construction. Further the Incineration Plants are proposed to be established in Corporations wherever feasible to process Non recyclable combustible waste to attain the gap.

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 72 % of wet wastes are scientifically disposed without using land fill. Further 20 % of dry waste which is saleable and recyclables are disposed to the vendors periodically. ✓ Marching towards "Zero Residue Concept".	100%	20 %	✓ 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 incineration plant for balance quantity of dry waste disposal to the standard of PCB recommendation and it is proposed to use the expected residue from this plant for manufacture of tiles and bricks.

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

Current Status	Desirable Level	Gap	Proposal for attending gap
✓ Reclamation of dump yard filled with legacy waste through bio mining process is proposed. The total legacy waste in the 218 ULBs is 200 lakh cu.m, biomining is not feasible in 16 ULBs due to minimum quantity & abandoned quarry sites and in 446 ULBs there is no legacy waste dumped. ✓ In the remaining 202 ULBs, bio remediation of old and abandoned dump sites have been taken up in 144 ULBs (13 Corporations, 87 Municipalities and 44 Town Panchayats) to remove the 191 Lakhs Cu.m of Legacy waste through bio mining process at a total estimated cost of Rs. 1739.16 Crores. After completion of the biomining works, about 1360 acres of land valuable to Rs. 1050 Crore will be reclaimed. ✓ Bio Mining works has been completed in 27 ULB (16 Municipalities - Kumbakonam, Pammal, Sembakkam, Poonammaalle, Chidambaram, Idappadi, kankeyam, Bodi, Bhavani, Anakaputhur, Arani, Mettupalayam, Pallavapuram, Vellakoil, Karur, Sathiyamanagalam and 11 Town panchayats - Perundurai, Marakkanam, Uthamapalayam, Thenkarai, Denkanikottai, Kaveripattinam, Velur, Ulundurpettai, Thirunindravur, Madukkur and Chinnalapatti) also cleared 10.17 Lakh Cu.m of legacy waste so far and 95 acres of land has been	100%	(Completed 5%) Fund Sanctioned & under progress – 91%	✓ Bio mining works under progress in remaining 117 ULBs. It will be completed before 30.06.2022. ✓ Regarding the remaining 58 ULBs, the estimated quantity of 8 lakhs cu.m of legacy waste is proposed to be removed in a phased manner by mobilizing required fund from various sources. Biomining work in Greater Chennai Corporation is expected

reclaimed. Works in 117 ULBs are in various stages. ✓ Centre for Environmental Studies, Guindy Campus, Anna University, Chennai has been engaged as Third Party Inspection Agency for all 142 ULBs for technical guidance in Bio-mining works. ✓ Administrative Sanction for an amount of Rs.9.56 crore has been accorded vide GO (Ms) No. 65, MA&WS Department, Dated 18.6.2020 for the removal of 1.22 lakh cu.m. Legacy waste in Venkatamangalam Compost Yard through Biomining process. The work has been taken up and is under progress. ✓ Biomining works was sanctioned to Greater Chennai and Madurai Corporations in the SBM Circulation note of SHPC during Feb 2021 at a project cost of Rs.814.97 Cr.to remove 68.85 Lakh Cu.m.			to be completed by 31.12.2023 considering the limitation of funding and availability of service providing operators for removal of legacy waste.

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 (2019-20) ✓ 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 2019-20 as per Form IV submitted to TNPCB in the month of July 2020. ✓ 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. ✓ Capacity building programmes organized in 35 Locations to train 33,000 Sanitary Workers in the year 2018-19. ✓ Thus far, 9200 sanitary officers/workers have undergone training programme and the remaining batch will be completed in the subsequent years. ✓ 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.	Nil	Nil	Complied

✓ 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 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 (5 ULBs) - 10 MCC with a handling capacity of 32 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 (44.33TPD) through windrow composting.	100%	20%	Alternative methods to process wet waste in accelerated manner is being analysed to suit the hilly climate conditions. Meanwhile, currently Windrow Composting is being practiced to process the wet waste.

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

SWM Rules 22	Time frame for implementation

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

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S. No.	Activity	Time limit from the date of Notification of Rules	Present status of compliance by the State of Tamilnadu
	authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or standalone sanitary landfill facilities by all local authorities having a population of 0.5 million or more.		
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. ✓ Ten 100 TPD, Seven 10 TPD, one 50 TPD, Eight of 25 TPD and Eleven 5 TPD Incineration plant are sanctioned to process Non recyclable combustible waste and the works are in the various stages. ✓ one 50 TPD, one 10 TPD and Six of 5 TPD Incineration plant is functioning to process Non recyclable combustible waste. ✓ Ten of 100 kg (9 nos Completed), two of 20 TPD Pyrolysis plant are sanctioned to process non decomposable and non recyclable waste ✓ 4 nos of Resource Recovery Centes and 1 no of Material Recovery Facility for a total design capacity of 25 TPD is under construction. None of the ULBs have landfill since the State is successfully marching

S. No.	Activity	Time limit from the date of Notification of Rules	Present status of compliance by the State of Tamilnadu
			towards Zero – Residue Concept. Planned for comprehensive SWM processing facility on Zero residue concepts.
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 74% segregation has been achieved. Due to 2nd wave of Covid-19 target dates are pushed bid further.
5	Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.	2 years	97% door to door collection achieved. Due to the outbreak of pandemic COVID 19, the entire Government Machinery has been concentrated to control the situation and providing treatment for the affected and that the regular work slow down. Due to 2nd wave of Covid-19 target dates are pushed bid further.
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	2 years	✓ Biodegradable waste collected at door step & processed in Micro Composting Centres (MCCs) in Corporations and Municipalities.

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S. No.	Activity	Time limit from the date of Notification of Rules	Present status of compliance by the State of Tamilnadu
	bodies having 100000 or more population		✓ Each MCC will cater to the waste generated from 3000-5000 HHs. ✓ In 15 Corporations and 121 Municipalities and 42 Town panchayats 901 MCCs were established with handling capacity of 3159 TPD ✓ In GCC, 743 Mulch Pits, 262 Sintex Tank and 3394 units of Well ring are established with handling capacity of 630 TPD. ✓ 876 OCCs are functioning in Corporations & Municipalities with a handling capacity of 416 ✓ 107 Biomethanation plants are established to process 259 TPD ✓ 526 Windrows and 263 Vermi Composting plants are functioning with capacity of 1242 TPD
8	Setting up solid waste processing facilities by local bodies and census towns below 100000 populations.	3 years	
9	Setting up common or standalone sanitary landfills by or for all local bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules	3 years	as serial no. 2 & 3 above
10	Setting up common or regional sanitary landfills by all local	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
	bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules		
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 218 ULBs is 200 lakh cu.m, biomining is not feasible in 16 ULBs due to minimum quantity & abandoned quarry sites and in balance 446 ULBs there is no legacy waste dumped. ✓ In the remaining 202 ULBs, bio remediation of old and abandoned dump sites have been taken up in 144 ULBs (13 Corporations, 87 Municipalities and 44 Town Panchayats) to remove the 191 Lakhs Cu.m of Legacy waste through bio mining process at a total estimated cost of Rs. 1739.16 Crores. After completion of the biomining works, about 1360 acres of land valuable to Rs. 1050 Crore will be reclaimed. ✓ Bio Mining works has been completed in 27 ULB (16 Municipalities -Kumbakonam, Pammal, Sembakkam, Poonammaalle, Chidambaram, Idappadi, kankeyam, Bodi, Bhavani, Anakaputhur, Arani, Mettupalayam, Pallavapuram, Vellakoil, Karur, Sathiyamanagalam and 11 Town panchayats -

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S. No.	Activity	Time limit from the date of Notification of Rules	Present status of compliance by the State of Tamilnadu
			Perundurai, Marakkanam, Uthamapalayam, Thenkarai, Denkanikottai, Kaveripattinam, Velur, Ulundurpettai, Thirunindravur, Madukkur and Chinnalapatti) also cleared 10.17 Lakh Cu.m of legacy waste so far and 95 acres of land has been reclaimed. Works in 117 ULBs are in various stages. ✓ Regarding the remaining 58 ULBs, the estimated quantity of 8 lakhs cu.m of legacy waste is proposed to be removed in a phased manner by mobilizing required fund from various sources.The time frame is fixed considering the limitation of availability of service providing operators for removal of legacy waste.
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 submitted Annual Report for the year 2019-20 to the Central Pollution Control Board on 31.07.2020.

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

Current Status	Desirable Level	Gap	Proposal for attending gap
• DO letters dated 25.04.2016 & 14.06.2016 and letters dated 04.10.2016, 26.11.2016 & 19.01.2017 addressed to Commissionerate of Municipal Administration, Directorate of Town Panchayat, RDPR Dept to comply with the provisions of the Solid Waste Management Rules, 2016. • Meeting convened on 11.01.2017 with the officials of Corporation of Chennai, CMA & DTP to comply with the provisions of the Solid Waste Management Rules, 2016 • One day Sensitization Program on "Implementation of Solid Waste Management Rules, 2016" conducted by the TNPCB on 30th January 2017. • One day training program on salient features of Solid Waste Management Rules conducted for the District Co- ordinators of Eco-Club, National Green Corps (NGC) & Scouts on 20.09.2019 • 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, Kayalpattinam Municipality, Chitlapakkam Town Panchayats.	As indicated in SWM Rule 2016	Nil	Complied

• Further, Show Cause Notice issued to Pallavaram Municipality, Jambai and Nandivaram Guduvanchery Town Panchayat and Sithalapakkam Village Panchayat under section 5 of E(P) Act, 1986 for levying of Interim Environmental Compensation for non-compliance of SWM Rules. • Directions under section 5 of Environment (Protection) Act, 1986 issued to Pallipalayam & Vaniyambadi Municipality and Medavakkam Village Panchayat for compliance of SWM Rules.			

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 15 Corporations and at 97 Municipalities. Other Municipalities do not have dumpsites. • TNPCB conducted Ambient Air Quality monitoring at the vicinity of solid waste dumpsites pertaining to 15 Corporations namely, Chennai, Coimbatore, Madurai, Trichy, Tiruppur, Dindigul, Salem, Erode, Thoothukudi, Vellore, Tirunelveli, Nagercoil, Hosur, Thanjavur and Avadi. • Continuous Ambient Air Quality Monitoring stations installed in the vicinity of Kodungaiyur and Perungudi dumpsites.	To carry out Ground Water Quality Monitoring at available dumpsites of Corporations and Municipalities	Nil	Achieved

SWM Rules 16(c),(d),(e),(f), (g),(h),(2), 19(3) 24(3)	Issue of Authorisation to local bodies generating solid waste greater than 5 tons/day Submission of Annual Report

Current Status	Desirable Level	Gap	Proposal for attending gap
• In Tamil Nadu, 15 Corporations, 119 Municipalities and 85 Town Panchayats generate solid waste greater than 5 tons/day and require Authorisation. • TNPCB has issued Authorisation to 15 Corporations, 119 Municipalities and 85 Town Panchayats.	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 2019-20 to the Central Pollution Control Board on 31.07.2020.	To submit Annual Report to the CPCB before 31st July every year	Nil	Submitted

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 has been implemented in the HCFs.	Implementation of Bar coding by all the H CFs in co-ordination with the CBMWTFs.	To ensure that all the HCFs implement Bar coding system.	All the 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

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			coded bags in the HCFs located in their jurisdiction. Also, TNPCB has issued and uploaded standing instructions to all the HCFs in the TNPCB website directing all the HCFs to comply with the rules including Bar coding system.

BWM Rule 4 (p)	**Duties of Occupier of HCF Annual report on its web-site**

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

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

BWM Rule 5 (c)	**Duties of Occupier of CBMWTFs** **Bar coding and global positioning system**

Current Status	Desirable Level	Gap	Proposal for attending gap
Bar coding system and GPS Tracking system : There are totally 12 CBMWTFs of which the following 2 namely (1). M/s. Society for	100 % Implementation of Bar coding by all the HCFs in co-ordination with the	To ensure that all the HCFs implement Bar coding system.	All the CBMWFs have been issued with Directions under Section 5 of

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 has been implemented in the HCFs. All the vehicles of the CBMWTFs have been fitted with GPS Tracking system.	CBMWTFs.		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	--	Nil	Nil

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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.			

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 achieveing 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 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

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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 26987 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 2019 vide TNPCB letter dated 28.07.2020.	-	-	-

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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. Directions were issued to 24 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.	--	--	-

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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 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. Scope of work has been sent to the institutions to furnish cost estimate to carryout performance evaluation of CBMWTFs.	Undertake and support third party audits of the common bio-medical waste treatment facilities in their State.	Identification of external agency/ organization is under process. Necessary follow up action is being taken up.	M/s. Teknotherm Industries, Coimbatore has conducted third party audit through Anna University, Chennai and M/s. Tamilnadu Waste Management Ltd, Kancheepuram has conducted audit through IIT, Chennai. The Board has proposed to carryout the third party audit of the CBMWTFs through reputed institutions. Due to the current COVID 19 pandemic, the finalisation of agency (reputed institutions) is under process

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 State Level Advisory Committee meetings were held on 25.09.2018, 10.04.2019, 26.11.2019 & 24.12.2020. 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.	—	Nil	-

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

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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.710/2017, 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. ✓ 5 ULBs have proposed to set up processing facilities for C&D waste (Greater Chennai Corporation, Coimbatore, Tiruchirapalli, Madurai and Tiruppur) ✓ In GCC, Work is under progress for processing the C&D waste of capacity 400 TPD each at Kodungaiyur and Perungudi dumping ground. ✓ Coimbatore Corporation has called for retender. ✓ Trichy Corporation tender is under evaluation (3rd Call) ✓ Madurai Corporation is under tender stage. ✓ Administrative Sanction to be obtained for Tiruppur Corporation.	100%	100%	Proper mechanism for inflow and outflow of C&D waste is proposed to be ready by 30.09.2021. Currently C& D Waste is being used for laying base course for formation of roads and filling up of low lying areas

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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 3961 units generating hazardous wastes as on 31.03.2020 & 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 2 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

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TNPCB is monitoring the units during inspection to ensure that the unit is not stored the Hazardous Waste more than 90 days.	-	Nil	-
HWOM Rules 9	**Utilisation of hazardous and other wastes**		

Current Status	Desirable Level	Gap	Proposal for attending gap
List of Recycling units for recyclying of Hazardous Waste under Schedule i, III & IV for which authorization issued under HOWM Rules 2016. 1. Recycling units such as Used Oil - 25 No, 2. Waste oil – 13 Nos, 3. Lead bearing waste including battery waste – 27 Nos, 4. Paint & Ink sludge/ residue – 2 Nos, 5. Zinc & Zinc Ash – 9 Nos 6. Copper Scrap – 5 Nos 7. Brass Dross – 1No. 8. Spent Catalyst – 1No. 9. E-Waste – 3 Nos. 1. The Board has authorized 13 cement plants for co processing of 11.53 Lakhs MTonnes per annum of utilizable wastes in cement kilns. During the year 2019-20, about 1.55 lakhs MTonnes of ETP sludge have been disposed to various Cement industries for co-processing through the following Authorized pre processing facilities & from other industries 1.M/s GEPIL- Vellore – Authorized capacity – 2500TPA 2.M/s Sandhiya Enviro Tech System – Villupuram- 5023 T/A	-	Nil	-

Recyclable/Utilizable Waste Disposal for the period 2019-20	
Recyclable Hazardous Waste generation (T/A)	Utilizable Hazardous Waste Generation (T/A)
120437.6	742351.0

	Hazardous waste recycled through Recyclers - 86 Nos (Total capacity – 678040 T/A)	Hazardous waste Utilized through utiliser, pre processer &Co procesing in cement plant - (Total capacity - 2854014 T/A)				
	120434 Tons	752468 Tons				

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. 1. 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) 2. M/s Tamilnadu Waste management Limited Undurumikidakulam, A Mukkulam Village, Thiruchuli Taluk, Virudhunagar District (Permitted capacity Land fillable – 240000 T/A) Land fillable Hazardous Waste Disposal for the period 2019-20	-	Nil	-

Land fillable HW received (T)	Land fillable Hazardous Waste Disposal (T)
90296 MTons	90296 M Tons

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
1. Packaging , labeling & manifeast system is followed by Hazardous waste generators/TSDF/Recyclers/ pre procrssor 2. TSDF vechicles are fitted with GPS arrangement 3. TNPCB issued Authorization to 11 transporters to transport Hazardous Waste to the Authorized dispsoal facility for scientific land fill/recycling/ co processing facilities.	-	Nil	-

HWOM Rules 20	Records and returns

Current Status	Desirable Level	Gap	Proposal for attending gap
TNPCB has identified 3961 hazardous wastes generating units and the units are maintained in Form – III & IV as per the Rules & annual returns are submitted to CPCB within the stipulated time.	-	Nil	-

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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
Board has issued Closure order to 2 units for non compliance conditions stipulated in Hazardous Waste Authorization issued to the unit. The calculation of Liability & Environmental Compensation is being followed as per CPCB guidelines.	-	Nil	-

Thematic Area: 5. Compliance to E-Waste Rules

Thematic Area :3(V)	Compliance of E-Waste Rules,2016

Current Status	Desirable Level	Gap	Proposal for attending gap
• Work order was issued to the National Productivity Council to conduct E-waste inventorization in the entire state of Tamil Nadu at cost of Rs.47.08 lakhs vide lr dated 29.01.2020. • As per the Annual Report 2019-20, E-waste collected and channelized to the authorized dismantlers / recycler is 37235.66 Tonnes. • TNPCB has authorized 30 Dismantlers and two Recyclers. • 72 Producers in the State have obtained EPR Authorization from CPCB. • In October, 2018 Awareness Programme on Environmental Hazards of Electronic Waste was conducted at TNPCB Corporate Office in association with MAIT, New Delhi to the trainer of trainers. • TNPCB issued a Public Notice in the News Papers Tamil & English on 21.08.2019 appealing all the stake holders to comply with E-Waste Management Rules and the orders issued by the Hon'ble NGT. Press release was also issued in all the Districts in this regard. • In order to identify producers who have not	• 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 EPR Authorization from CPCB and implement EPR plan. • All the local bodies shall segregate the e-waste mixed with solid waste and channelize to the authorized dismantler or recycler.	Since the generation of the e-waste in the entire State has not been arrived, the gap between the current status and desired levels is yet to be assessed.	• Inventorization of E-waste generation for the State of Tamil Nadu is carried out through National Productivity Council (NPC). • National Productivity Council has submitted 2nd draft report to TNPCB on 08.02.2021 and the same was evaluated by the technical expert committee on 12.03.2021. The NPC will submit final report after incorporating the suggestions & recommendations of the committee by May 2021. TNPCB has to verify the EPR Authorized producers, collection centres, dismantlers, recyclers on quarterly basis and submit report to CPCB periodically. Quarterly report for the quarter January 2021 to March 2021 will be submitted to CPCB by 3rd week

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obtained EPR Authorization, TNPCB vide letter dated 04.09.2019 has addressed GST Council to furnish the list of Producers. This is a continuous process. • TNPCB has conducted a brainstorm meeting to all the EPR Authorized Producers, Dismantlers, and Recyclers on 6.9.2019. • On 20.9.2019, a brainstorm meeting was conducted at TNPCB Head Office to the District Co-ordinators of National Green Corps, Eco Clubs and Scouts. They will conduct awareness programme to the students in the schools. • TNPCB vide proceeding dated 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 • TNPCB vide letter dated 09.10.2019 has addressed the Director of School Education, Director of Collegiate Education, Director of Technical Education to issue circulars to all schools, colleges to create awareness to the			of April 2021.

students. • Letter have been addressed to the Bulk Consumers such as Nationalised Banks in Tamil Nadu, State Universities, Central Universities and Deemed Universities in Tamil Nadu to send the e-waste to authorized facilities and to comply with the provisions of the E Waste Rules, 2016.s. • TNPCB has granted Rs. 38,00,000/- (Rupees Thirty Eight Lakhs only) Rs. 1,00,000/- (Rupees one lakhs only) per District office for conducting the awareness programme to the School Teachers and other stake holders on E-Waste management vide BP.No. 76 dated 29.11.2019. Two awareness meeting (1st meeting with the members of the District Environmental Planning Committee in each District and 2nd meeting with the School Teachers and other stake holders on E-Waste management) were conducted in the 11 Districts of Tamil Nadu. • TNPCB has addressed the Industries Department vide letter dated 05.11.2019 and Housing and Urban Development Department vide letter dated 09.03.2020, Tamil Nadu to encourage the establishment of recyclers / dismantlers for e-waste in the State of Tamil Nadu and to allocate land in the notified industrial area / park so as to ensure environmentally sound management of E-waste in the entire State. • TNPCB vide letter dated 22.08.2019 has issued			

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guidelines to all the District Collectors to prepare and include E-Waste Management subject in the District Environmental Plan and upload the same in District Administration web site as per the orders of Hon'ble NGT(PB) in OA.No. 713/2017, New Delhi dated 15.07.2019. Accordingly, District Environmental Plans have been uploaded in the District Administration website. • TNPCB has conducted one day workshop to all the producers, dismantlers, recyclers and refurbishers on 12.02.2020.			

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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**

Current Status	Desirable Level	Gap	Proposal for attending gap
In Tamil Nadu, CPCB has identified 6 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. The present level of BOD is > 2, DO -6.5 and FC-14 MPN/100ml during January 2020- April 2020. However, during Jan 2021 to Mar 2021 there is no flow. 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 Jan-2021 to Mar-2021, the values of BOD – 12 mg/l, DO – 3 and FC – 840 MPN/100ml. 3. River Vasista (Manivilundhan to Thiyaganur Stretch-10Kms) – Priority-I (BOD > 30 mg/l), The CPCB data as on Sep-2018 the value of BOD is 675.0 mg/l. The present status are BOD – 29 mg/l, DO –Nil and FC – 3100 MPN/100ml as on Jan-2021 to Mar-2021. 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. The present data of BOD <2	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/100ml.		➢ The timeline (upper limit) for execution of action plans for the polluted river stretches will be two years from 01.04.2019 as per the Hon'ble (PB) order 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 to prepare the action plan and to monitor the execution of action plan for the polluted river stretches in Tamilnadu.

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to 4.1 mg/l, DO –6.6 and FC – 260 MPN/100ml as on Jan-2021 to Apr-2021. 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. The present values are BOD <2-2.5 mg/l, DO –6-6.4 and FC – 14-170 MPN/100ml as on Jan-2021 to Apr-2021. 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. The present values of BOD <2-3.2 mg/l, DO 6.2-7.8 and FC 2-63 MPN/100ml as on Jan-2021 to Apr-2021. ➢ Action plans for six polluted river stretches (Priority I: 4Nos, Priority-IV: 1 No. Priority-V: 1 No.) were submitted to the CPCB. • As per the Hon'ble NGT (PB) order, the action plans for six Polluted River Stretches were hosted in the TNPCB website after the approval of RRC members 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			The Engineer in Chief WRD, PWD is also to be included in the RRC as a special invitee as directed by the Chief Secretary, Government of Tamilnadu. Accordingly, Government issued orders vide G.O No. G.O.(D).No.11, dated 20/01/2020. RRC meeting was convened on 15.07.2019 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 Committee is formed to monitor and review the action plans proposed by the concerned line departments at District level as per the Hon'ble NGT Order in O.A. No.

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. ➢ Government of Tamil Nadu has directed the TNPCB 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. ➢ 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, a letter was addressed to the Government vide TNPCB letter No. TNPCB/DD (L)/F.No.6849/PRS/2016 dated 04/12/2019 for issuing requisite orders and the Board awaits for the Government Order. ➢ 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 Tamilnadu. Further, the			606/2018 dated 23.04.2019. The same District level committee will also monitor and review the action plans proposed by the line departments concerned at District level as per the Hon'ble NGT order in O.A. No. 673/2018 dated 20.09.2018, 19.12.2018, 08.04.2019 & 06.12.2019 and submit their progress report to the Government on fortnight basis. The minutes of the meeting shall be uploaded in the website periodically. ➢ Government of Tamil Nadu has initiated a project in the name of "Nadanthai Vaazhi Cauvery" in Tamil Nadu which is a massive rejuvenation programme for the River Cauvery and its Tributaries including the Rivers Sarabanga,

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 24.02.2020 under the chairmanship of the Principal Secretary, Environment & Forests Department along with the RRC members and line departments concerned to review the action plans for the rejuvenation of River Bhavani under priority-IV prior to 10th Task Team meeting. • The 10th CPCB Task Team meeting was conducted through video conference with the line departments concerned on 26.02.2020 at the office of the TNPCB, Chennai for the approval of action plans for the River Bhavani which was submitted to the CPCB already by the Government of Tamil Nadu. The TNPCB and other department officials explained about the action plans and their progress of on going rejuvenation works to the CPCB Task Team. • 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. T 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 Comissioner of Municipal Administration, the District			Thirumanimutharu and Bhavani and entrusted the work to an approved agency for the preparation of Detailed Project Report (DPR). For the above project, PWD is the co-ordinating agency. The DPR for the River Vasista (left-out) will be prepared by the TNPCB and submitted to the PWD for further action.

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 monthly review meeting with the line department officials concerned of the State Government through video conference on the progress of rejuvenation works and assessment of Polluted River Stretches as per the Hon'ble NGT (PB) order dated 06.12.2019 in O.A. No. 673/2018. ➢ 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 letter dated 30.06.2020.			Action to bridge the gap between generation and treatment of sewage & MSWs Sewage: Under Construction – 38 STPs & 41 FSTPs (978 MLD) proposed – 38 STPs MSWs:

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➢ A letter dt.30.6.20 addressed to the Executive Director-Technical, NMCG-Ministry of Jal shakti requesting him to delist the River Bhavani and the River Tamirabarani from polluted River Stretches based on the BOD values and also categorize River Cauvery from priority I to Priority IV with copy of the same has been marked to the CPCB. ➢ Central Monitoring committee (CMC) meeting is being conducted every month to review the progress made on existing STPs, under construction, proposed STPs, management of municipal solid wates,etc., on the construction and 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 February 2021 has been submitted to NMCG- Ministry of Jal Shakthi with a copy to the CPCB. ➢ During the 9th Central Monitoring Committee meeting held on 04.03.2021, the Sewage treatement plants, Muncipal Solid waste Management, Industrial Pollution, Hazardous Waste Management, Biomedical Waste Management and reusue of treated waste water were reviewed. The monthly status of Sewage and Solid Waste Management with respect to existing, ongoing and proposed stages were discussed. For furnishing the above details by the line departments, a Software module had been developed by the TNPCB and it was hosted in the TNPCB website as a trial run.		Sewage generation-3786 MLD Sewage treatment-2385 MLD Gap-1404.9 MLD MSW generation-3248 MT MSW treatment-9147 MT Gap-4579 MT HW- No gap BMW- No gap	Under Construction –274 Nos. Proposed – 14 Nos. Reuse of Waste water- 81 MLD

Thematic Area: 7. 122 Non-attainment Cities

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

Current Status of Particulate Matter (during the period April 2020 – March 2021)	Desirable level of annual average (<PM_{10} -60µg/m^3)	Gap	Proposal for attending gap
As per the directions of the Hon'ble National Green Tribunal, Action plan for non attainment city-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. A draft action plan for the abatement of air pollution in Trichy city was prepared and was approved by the Air Quality Monitoring Committee (AQMC) and the same was forwarded to CPCB on 03.01.2020 for approval. After reviewing the action plan by three member committee for further improvements in the plans, CPCB has issued necessary directions for revising the action plan. Accordingly, a revised action plan has been prepared by Tamil Nadu Pollution Control Board incorporating the points	Reduction of PM_{10} in Madurai city, Thoothukudi city and Trichy city.	The Annual average of air pollutant PM_{10} shows a significant decrease in concentration from 137µg/m^3 during the year 2015-2016 to 83µg/m^3 during the year 2020-2021 in Thoothukudi.	The District administration of Thoothukudi is taking necessary steps in coordination with the other stake holder departments for the reduction in PM_{10} pollution. The Ministry of Environment, Forests and Climatic Change, Government of India has approved a sum of Rs 3 crore as grant in aid for the non- attainment city of Tamil Nadu. The action plan for the non attainment city Trichy will be implemented on receipt of approval from Central Pollution Control Board, Delhi. CPCB has informed that the fifteenth Finance Commission (FC-XV) 2020-21, recommended that urban local bodies of 42 million plus urban cities will receive total funds of Rs 4400 crores in 2020-21 to augment actions for air quality improvement for a period of 5 years commencing form 01.04.2020. A sum of 181 crores, 31 crores and 21 crores were sanctioned as grants to million plus cities for the year 2020-21 for the improvement of air quality in the cities of Chennai, Madurai and Trichy respectively in Tamil Nadu. Finance commission has released a first installment of

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mentioned by three member committee with respect to PM_{10} pollution for Trichy city and the AQMC approved action plan was submitted to Government of Tamil Nadu for onward submission to CPCB. Government of Tamil Nadu has requested TNPCB to revise the action plan and the same has been submitted to CPCB on 22.03.2021. CPCB has included Madurai as non-attainment city on 11.11.2020 based on the data on PM_{10} for the period 2015-2019 on 20.10.2020. TNPCB has submitted city action plan of Madurai and Trichy to CPCB on 22.03.2021. CPCB has directed TNPCB to revise the action plan for ceratin compents with provisional approval of city action plan for the release of second installment of funder under the scheme of 15th finance commission and the same is under preparation for further submission to Government of Tamil Nadu for onward transmission to CPCB.			Rs116.5 crore and second instalment of 116.5 Rs Crore to Tamil Nadu on 02.11.2020 and 31.03.2021 TNPCB has installed 34 number of CAAQMS stations in 24 districts of Tamil Nadu. CPCB has approved one CAAQM Station in Trichy (Non-attainment city) with the total cost of Rs 100Lacs. In addition to the above, Trichy and Madurai ULB has prposed for the installation of 2 CAAQM Stations each at above cities under fifteenth finance commsion TNPCB has issued notification No TNPCB/ Labs/DD (L)/02151/2019 dated 01.06.2020 on retrofitting of Emission Control Devices / Equipment in DG sets with capacity of 125KVA and above in the state of Tamil Nadu as per the NGT order 681/2018 dated 06.08.2019. The date of Compliance is 31.03.2020. A MoU between TNPCB and M/s. XD Corporation SA, Switzerland is in process of establishing a Real Time Air Pollution forecasting by Dynamic Air Quality Control Solution (DACS) software model in the state of Tamil Nadu. The non attainment city of Thoothukudi has initiated to increase the green cover by planting

			2900 tree sapling to reduce the air pollution. To reduce the level $PM_{2.5}$ Pollutant; action on reduction of sulfur content in diesel and petrol to 0.05% and lower level has been implemented and the reduction in benzene content to 1% in petrol has also been implemented in the state Tamil Nadu. The usage of cleaner fuel such as PNG/CNG in industries is under proposal stage and the oil companies have proposed to introduce the clean fuel policy. Some of the industries outside the Thoothukudi city have already changed the fuels to Natural gas and pipeline has been proposed to extent to the industrial clusters to reduce the usage of fossil fuels.

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Thematic Area: 8. 100 Industrial Clusters

Thematic Area :4(VIII)	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 Industrial Areas. TNPCB has followed the mechanism for new activities/expansion of Red &Orange

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 Index shall be reduced below 60.

Gap

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

Proposal for attending gap

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

In collaboration with A.C Tech, Guindy, Chennai (third party assessment) the CEPI score was evaluated for the post monsoon of 2019 and found that the CEPI scores were below 50 and detailed below,

Sl. No	Name of Polluted Industrial Area (PIAs) in Tamilnadu	CEPI Score
1	Manali	26.26
2	Vellore	28.13
3	Tiruppur	24.32
4	Mettur	20.77
5	Tuticorin	44.25
6	Coimbatore	8.60
7	Cuddalore	26.38
8	Erode	25.02

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category Industries in the above said Polluted industrial Areas.			Time bound action plan was prepared and submitted to CPCB on 28.01.2020. The CPCB has also been addressed to lift the moratorium imposed in 8 PIAs. Based on the Legal Opinion obtained from TNPCB Standing Counsel, TNPCB has decided to conduct pre-monsoon environmental quality monitoring study for the period 2020 in 8 PIAs of Tamil Nadu through its own TNPCB Lab which is NABL accredited and also directed TNPCB Lab to conduct the study involving the participation of CPCB in the monitoring survey and the same was communicated to CPCB vide ltr dt: 28.05.2020. Also TNPCB has issued work orders for conducting Environmental monitoring survey at 8 places of PIA for post monsoon 2020. The Environmental monitoring survey for post monsoon was conducted and the sample was analysed. The CEPI score for the post monsoon 2020 and pre monsoon 2021 are to be calculated. The results along with CEPI score will be furnished shortly.

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

Current Status	Desirable Level	Gap	Proposal for attending gap
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 12 Sewage Treatment Plants. In Chennai city, CMWSSB is 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 727 MLD. ✓ 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. ✓ The present inflow of sewage received, treated and discharged in Chennai city is 525 MLD, out of which 36 MLD of secondary treated waste water and 44 MLD of tertiary treated water is supplied for industrial purposes. ✓ 0.23 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. ✓ The former Hon'ble Chief Minister of Tamil Nadu earlier announced in	100%		CMWSSB has set itself an ambitious target for complete recycle and reuse by 2030 At Present – 12.5% 2025 - 50% 2030 - 100%

2015 that a TTRO Plant will be constructed in Kodungaiyur to supply TTRO water to the industries in North Chennai funded by World Bank. ✓ Accordingly, the work of Design, Build and Operate (DBO) of 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 for a value of Rs.235 and Rs.396 Crore respectively has been completed. ✓ The two TTRO Plant of each 45 MLD capacity, for which the works commenced on 25.11.2016 have been completed and are commissioned. ✓ The capacity of the TTRO plants will be increased to 60 mld each. ✓ CMWSSB in continuing its efforts to augment supply of water through sustainable sources has made a detailed study with IIT Chennai and presented use of tertiary treated recycle water for lakes recharging to the special water group constituted by GoTN. ✓ Government of Tamil Nadu issued in principle approval in G.O.(MS) No.131 Municipal Administration and Water Supply Department, Dt.10.12.2018 for two proposals of each 10 mld capacity for recycle and recharge of tertiary treated water from Nesapakkam STP and Perungudi STP to Porur and Perungudi lakes. The works costing Rs. 83.78 Crore have been administratively sanctioned by GoTN and have been commenced on			

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13.05.2019. ✓ The tertiary treated recycled wastewater employs technologies for nutrient removal, membrane filtration for removal of physical and biological impurities and ozone disinfection. ✓ The former Hon'ble Chief Minister of Tamil Nadu has announced in the floor of the Assembly on 12.07.2019 that a detailed project report will be prepared by CMWSSB for using 260 mld of recycled and reuse wastewater for recharging of Lakes in and around Chennai. In this regard, the work for preparation of DPR in association with IIT and DoST, GoI, is nearing completion with the following works done, ✓ Lake – Location and areal extent – Google map ✓ Volume and health of the lake – actual field survey, google map ✓ Existing lake water quality – sample collection and analysis ✓ Topo map of the entire Chennai. This information is necessary to identify the possibilities of interconnections of lakes. ✓ Layered Map of existing/proposed STPs, available government land, locations of lakes/ponds, human habitats, existing distribution lines, storage reservoirs etc. ✓ Hydro-geological condition of existing lake area. Necessary to estimate the recharge potential of the area ✓ Identifying other storage locations – abandoned quarries, underground storage, aquifers and low-lying area			

✓ Draft DPR has been submitted to IIT Chennai and members of SUTRAM under DoS&T GoI Review on the draft DPR was held in IIT Chennai on 09.01.2020 World Bank has evinced interest in financing the project under Chennai city partnership programme. The draft DPR has been submitted to World Bank and is under review. The EIA report and modelling studies recommended by world bank are carried out. **Enhancement of Sewage Treatment Capacity** ✓ Existing sewage treatment capcity increased from 727 MLD to 745 MLD as on 30.01.2020 (Sholinganallur STP with a capacity of 18 MLD commissioned). ✓ Capacity will increase to 776 MLD on 31.03.2020 (Thiruvottiyur STP with a capacity of 31 MLD) ✓ Capacity will be increased through ongoing works to 951 MLD by Rehabilitation of existing sewage treatment plants and construction of new sewage treatment plants at a cost of Rs. 636 crores by 31.12.2021. **Upto Tertiary Treatment** ✓ Two TTRO plants with a total capacity of 90 MLD each for industrial supply were completed, the plants were commissioned in October and November 2019 by the Hon'ble Chief Minister of Tamil Nadu for a value of Rs. 235 and Rs. 396 crores each. ✓ Two TTUF pilot plants for refilling of urbanised lakes for ground water			

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recharging are under construction at a cost of Rs. 83.78 crores. ✓ The Hon'ble Chief Minister of Tamil Nadu announced in the floor of Assembly that a detailed project report will be prepared by CMWSSB for using 260 MLD of recycled and reuse wastewater for recharging of lakes in and around Chennai. The DPR has been taken up in association with IIT and DoST, GoI and total estimated cost of 260 MLD is Rs 1800 crore. **Sewage Collection** GoTN has issued GO (Ms) No.107 and has sanctioned Rs. 2371 crore for plugging of sewage outfalls in all the Chennai city waterways viz., Adyar river, Buckingham Canal and Coum river and the works are takenup in a phased manner.			
➢ Out of the 135 ULBs, Under Ground Sewerage Schemes have been taken up for implementation in 58 ULBs and completed in 43ULBs and others are in various stage of implementation. ➢ In UGSS completed towns, 52 no. of STPs completed & functioning. ➢ 22 no. of STPs work are under progress in 18 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	100%		CMA has set itself an ambitious target for complete recycle and reuse by 2035. • At Present – 2.5% • 2020 - 15% • 2025 - 50% • 2030 – 85% • 2035 – 100% State Government have came out with a policy on reuse of treated wastewater.

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➢ Perambalur - Negotiation is under progress with MRF Industries for the sale of STEW of 3.00 MLD. ➢ Ramanathapuram - 3.00MLD - NTC Infra ➢ Pollachi - 11.50MLD - Agricultural use ➢ Coimbatore - 15.00MLD - Agricultural use MoU in pipeline ULBs ➢ Arakkonam - 7.00MLD - MRF Industrial use Direct Agriculture Use ➢ Chinnamannur - 3.00MLD - Agricultural use ➢ Karur - 7.00MLD - Agricultural use			The policy envisages establishment of wastewater grids to promote the use of treated water for industrial, agriculture or non drinking purpose domestic use. Appointment of consultant for preparation of DPR for feasible grids was delayed due to COVID-19 suituation. Hence it will be prepared and projects will be grounded in phases.

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

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

<table>
<tr><th>Current Status - March - 2021</th><th>Desirable Level</th><th>Gap</th><th>Proposal for attending Gap</th></tr>
<tr><td>
Compliance status of ETPs:
<table>
<tr><td>No. of Industries which require ETP</td><td>11150</td></tr>
<tr><td>No. of Industries having functional ETP</td><td>11150</td></tr>
<tr><td>No. of Industries complying</td><td>11120</td></tr>
<tr><td>No. of Industries non-complying</td><td>30</td></tr>
<tr><td>Show cause notice issued</td><td>5</td></tr>
<tr><td>Closure directions issued</td><td>25</td></tr>
<tr><td>No of Industries against which action is under process/any other (prescribed)</td><td>0</td></tr>
<tr><td>No. of industries operating without ETP</td><td>0</td></tr>
<tr><td>Show cause notice issued</td><td>0</td></tr>
<tr><td>Closure Direction issued</td><td>0</td></tr>
</table>
</td><td>All ETPs to achieve the standards prescribed by the Board.</td><td>30 IETPs</td><td>Further action will be initiated on receipt of the reply for Show cause notice from the 5 IETPs units.</td></tr>
<tr><td>
Compliance status of CETPs: (March -2021)
<table>
<tr><td>No. of CETPs</td><td>36</td></tr>
<tr><td>No. of CETPs complying</td><td>33</td></tr>
<tr><td>No. of CETPs non-complying</td><td>3</td></tr>
<tr><td>Show cause notice issued</td><td>2</td></tr>
<tr><td>Closure directions issued</td><td>1</td></tr>
<tr><td>No of CETPs against which action is under process/any other (prescribed)</td><td>0</td></tr>
</table>
</td><td>All the CETPs to achieve the standards prescribed by the Board.</td><td>3 CETPs</td><td>Further action will be initiated on receipt of the reply for Show cause notice from the 2 CETPs.</td></tr>
</table>

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 firka wise. Total Annual Groundwater recharge of the State has been assessed as 20.22 bcm and Annual extractable Ground Water resources as 18.20 bcm. The Annual Ground Water extraction is 14.73 bcm and Stage of Ground Water Extraction as 81%. 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 2017 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 -2017 reads as follows:	To contain the GW exploitation and replenish Groundwater Level in Over exploited and Critical Areas with Artificial Recharge of Groundwater.		A comprehensive Groundwater Regulation Act to regulate and manage the abstraction of Groundwater is currently under the active consideration of the Government.

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S.No	Categorisation based on extraction	No of Firkas
1	Over Exploited (More than 100%)	462
2	Critical (90% to 100%)	79
3	Semi Critical (70% to 90%)	163
4	Safe (Less than 70%)	427
5	Saline	35
TOTAL		1166

The categorization as per the Re – Estimation of Dynamic Ground Water Resources of Tamil Nadu State -2017 is being carried out once in three years. The estimation of ground water resources as on March 2020 is in progress. On priority basis, the assessment of 275 over exploited firkas as on March 20 has been completed in November 2020. Out of 275 Over Exploited firkas 2 firkas have migrated to critical remaining 273firkasremain in Over Exploited category itself. 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. The assessment has been approved in the state level committee. Necessary approval from Government of India is under perusal.

Exploited firkas 2 firkas have migrated to critical remaining 273firkasremain in Over Exploited category itself. 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. The assessment has been approved in the state level committee. Necessary approval from Government of India is under perusal

Current Status	Desirable Level	Gap	Proposal for attending gap
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,Peramballur, Ramnad, Salem, Tanjavur, Trichy, Trippur, Tiruvarur, Tiruvannamalai, Thoothukudi, Tirunelveli, Viruthunagarand Villupuramare 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.	WQ paremeters limits for potable purpose Nitrate: <50mg/l Fluoride: <1.5mg/l TDS: <2000mg/l		Water quality monitoring is a continuous process. Every year "Water Quality Year Book" stating the year wise water quality are 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 2021, approximately 1500 of samples have been received in the four Water Quality Labs at Chennai, Trichy, Madurai and Pollachi and are being analysed.

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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) (45 Recharge wells).			Also few Artificial Recharge Structures are now proposed & and some are under execution. TNIAMP- I For Grond Water component Rs. 15.907 Crore was allotted for the construction of 45 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. Out of construction of 45 Recharge Wells, 41 Nos. ofRecharge wells are completed, 2 well works are in progress and the

			remaining 2 well works are yet to be takenup. Under TNIAMP- II (15crore– 37 Recharge Wells) (under execution). TNIAMP- III As part of TNIAMP Phase- III, DPRs for the Ground water Component have been submitted to the Engineer-In-Chief, WRD, Chennai for 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. CM

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			Announcement Schemes (62 crore -1 Check Dam) 125 Recharge wells and 760 Recharge shafts) (under execution) 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). NadanthaiVaazhi Cauvery (51.5 crore) (Proposal stage). 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. <u>Repair, Renovation and Restoration (RRR) of Water Bodies Project</u> 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.

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Thematic Area: 12. Air Pollution including Noise Pollution

Thematic Area :3(XII)	Air Pollution including Noise Pollution

Current Status	Desirable Level	Gap	Proposal for attending gap
(1). As per the directions of the Hon'ble National green Tribunal (NGT) Noise mapping for the cities of Chennai, Coimbatore and Madurai are under preparation. (2). The procurement of Noise monitoring instruments and its usage by the police department to address noise related complaints (TNPCB has communicated to Department of Police for the procurement of Noise monitoring instruments).	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 to be identified based on the noise monitoring survey	The noise level study at the Chennai, Coimbatore and Madurai cities were completed and the draft noise mapping is prepared. 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. Under 15th finance commission, Greater Chennai Corporation has sanctioned Rs 2 Crore for the procurement of 106 noise monitoring devices. For the installation of Noise limiters in the Noise making instruments/equipments, necessary proposal has been sent to the Govt of Tamil Nadu 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 2021 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- 2020	5723	11666775
2	Jan-2021	242	152611
3	Feb-2021	226	240220
4	Mar-2021	352	49009
TOTAL		6543	12108615

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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.

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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.

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- 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

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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, MAWS 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 46.10 lakh buildings existing in 14 Corporations (Excluding GCC) and 121 Municipalities, RWH structure has been provided in 39.40 lakh buildings(39.10 Private buildings and 30331 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 North east 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.

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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 (CMA) Greater Chennai Corporation (GCC) and Directorate of Town panchayats (DTP).The details are tabulated :

Department / Owners	**Number of water bodies**	**Total Numbers of water bodies Rejuvenated**		**Total Number of water bodies under rejuvenation**	**Total Number of water bodies to be taken for rejuvenation**
		Status as on 16.10.2020	**Status upto 31.01.2021**	**Status as on 31.01.2021**	
Greater Chennai Corporation	210	105	133	50	27
Commissioner of Municipal Administration	585	237	237	44	304
Directorate of Town Panchayats	2186	1268	1274	43	869
Rural Development and Panchayat raj Department	91819*	27358	(Rejuvenated 1200 +28623 and partial Restoration 50796) = 80619	1429	9,771
Public Works Department	14341	5340	5340	1095	7906

Department / Owners	Number of water bodies	Total Numbers of water bodies Rejuvenated		Total Number of water bodies under rejuvenation	Total Number of water bodies to be taken for rejuvenation
		Status as on 16.10.2020	Status upto 31.01.2021	Status as on 31.01.2021	
Hindu Religious and Charitable Endowment Department	2359	2140	2140 already good condition + Now rejuvenated 55 = 2195	4	160
Total	111500	36448	(39002 + Partially restored 50796) = 89798	2665	19037

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 105 water bodies have been completed at an amount of Rs.59.08 crore .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 78 water bodies have been under Chennai Smart City fund, CMCDM fund and CSR fund and the works 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.

Commissioner, Greater Chennai Corporation has conducted a meeting with major corporate companies and welfare organizations for fund tie up for restoration of the balance 27 water bodies through CSR fund.

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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 9 months.

3.2 Chennai Rivers Restoration Trust

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

ECOLOGICAL RESTORATION OF ADYAR CREEK – PHASE-I

A pioneering urban wetland conservation initiative was taken up by the Government of Tamil Nadu in the degraded 358 acres of Adyar Creek and Estuary. The restoration activities in Phase-I were undertaken in the 58 acres of Adyar Creek, which was once a place for disposal of sewage, municipal solid waste and construction debris and which had completely led to the severe degradation of surface and ground water quality and destruction of habitats of avian fauna, reptiles and fishes. The major restoration activities undertaken are: (i) increasing the water spread and tidal interaction area; (ii) plantation of native plants such as Tropical Dry Evergreen Forest species, mangroves and its associates, reeds, etc., (iii) landscaping for interactive environmental programmes.

In Adyar Eco-Park, a total of 1,43,818 saplings from 173 species of Coromandel coastal vegetation including Mangroves and Mangrove associated plants were systematically planted in order to restore the wetland ecosystem.

The vegetation planted in the wetlands has successfully survived and third and fourth generation trees are growing. A recent floral and faunal survey reported around 465 species of trees, shrubs, herbs and grasses and 368 species of animals such as molluscans, crabs, dragonflies, butterflies, fishes, amphibian, reptiles, birds and mammals. This figure stood at 141 before the restoration activity.

Adyar Eco-Park is now functioning as a centre for Environmental Education and Research. Students from various schools and colleges across the city regularly attend the environmental awareness programmes which impart knowledge on the coastal wetland ecosystem.

ECO-RESTORATION OF ADYAR CREEK AND ESTUARY – PHASE-II

In continuation of the restoration of Adyar Creek in 58 acres, an extent of 300 acres of Adyar creek, estuary, islets, mudflats and surrounding areas was taken up for restoration under Phase-II. This creek and estuary area was infested with exotic species like Prosopis juliflora, with indiscriminate disposal of sewage, solid waste and debris, all of which had contributed to the severe degradation of the estuarine ecosystem and which subsequently resulted in the shrinking of the water spread area, reduced tidal interaction and degradation of biodiversity.

Bund stabilization, removal of debris and plastics and other restoration activities enhanced the tidal interaction and increased the water spread in the degraded Creek and Estuary. Around 57000 mangroves and 35000 terrestrial saplings have been planted. All this has increased the bio-diversity of the Adyar Creek and Estuary ecosystem.

INTEGRATED COOUM RIVER ECO-RESTORATION PROJECT.

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

All the line departments have commenced the execution of the sub-projects entrusted with them, viz., Desilting and river widening by Public Works Department; Solid waste removal, fencing, boom deployment and developing parks by the Greater Chennai Corporation; Removal of solid waste and fencing along the banks by Commissionerate of Municipal Administration, Directorate of Town Panchayats and Directorate of Rural Development and Panchayat Raj in their respective areas; Laying of interceptor pipelines & installing modular sewage treatment plants by Chennai Metropolitan Water Supply and Sewerage Board; Resettlement & Rehabilitation of Project Affected Families (PAFs) by the Tamil Nadu Slum Clearance Board and are under various stages of progress and the status of the progress as on March 2021 is detailed below:

Under Integrated Cooum River Ecorestoration Project, desilting has been completed thus far for a length of 28.6 km out of the total 29.5 km and the formation of baby canal has been completed fully for 17.66 km. Thus far, 109517 MT of debris and garbage have

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been cleared from the banks and the work is fully completed by GCC, CMA & DRD. Fencing work has been fully completed for a length of 22.07 km out of a total length of 36.62 km. Out of a total identified 14257 Project Affected Families (PAFs) within the river boundary, 12302 PAFs have thus far been resettled. Regarding plugging of outfalls, out of 10 packages under Interception and Diversion pipelines, six packages have been fully completed; three in progress in various stages and the works are expected to be completed by Augut 2021 except for the Nerkundram UGSS which will be completed by April 2022. The construction of 4 Modular STPs is under progress and it is expected to be completed by December 2021. All the restoration works are expected to be completed by December 2021.

In the Adyar River Restoration Project from Origin to Mouth, the status of the progress as on March 2021 is detailed below: Under this project, desilting the river has been completed for a length of 14.07 km out of 16.04 km and construction of flood protection wall completed for 1.556 km fully. Fencing has been completed for a length of 9.84 km out of 24.67 km by GCC, 0.3 km out of 0.635 km by CMA, 4.037 out of 13.719 km by DTP and 9.34 out of 32.089 km by DRD. Work on beautification of bridges being maintained by GCC and Highways, has been fully completed on all the four bridges. Regarding plugging of outfalls, work is in progress for 7 packages and tender under evaluation for 2 packages. Thus far, 28023 MT out of 84887 MT of debris and garbage have been cleared from the banks by GCC, CMA, DRD & DTP. All the restoration works are expected to be completed by December 2022.

3.3 Commissionerate of Municipal Administration

There are 14 Corporations (except Chennai Corporation) and 121 Municipalities being administered with 585 municipal owned water bodies across 37 districts. There are 1746 water bodies located within the Municipal/ corporations limit and are being maintained by the concerned Departments. Of the 585 numbers of Municipal owned water bodies, 237 water bodies have been restored by the concerned urban local bodies at a total estimated cost of Rs. 58 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 funds 8 lakes in Coimbatore Corporation have been taken for rejuvenation at an estimated cost of Rs. 320 crore and the works are in

progress. In this connection about 12500 encroachments have been identified of which 10000 encroachment have been cleared and their families have been rehabilitated in the 14 slum clearance housing colonies. Further in Thanjavur and Salem each Corporation two ponds have been taken two ponds for restoration at an estimated cost of Rs. 10.25 crore and 22.98 crore under Smart City fund and the works are in progress.

Under the Kfw fund, 42 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. All the works are in progress.

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 in progress.

Regarding the water sample tests in waterbodies, the quality of water have been tested partially and the remaining to be done due to the non availability of water.

3.4 Directorate of Town Panchayats

There are 528 Town Panchayats being administered with 4305 water bodies in 36 districts. Out of which 2186 number of water bodies are belongs to Town Panchayats. In respect of 2186 water bodies, 1274 water bodies have been restored by the concerned Urban Local Bodies in the last five years. These water bodies are resorted 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 43 water bodies are under restoration and 869 water bodies will be restored in phased manner in due course.

3.5 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 21,051 numbers of Minor irrigation tank and 69,762 numbers of Ponds & Ooranies across 37 districts. Of the 91,819 numbers of water bodies, 1200 water bodies have been restored at an

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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 above Kudimaramathu Scheme, so far 28,623 water bodies consisting of 4,984 Minor Irrigation tanks and 23,639 Ponds and Ooranies has been rejuvenated. The remaining 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.

3.6 Public Works Department

The Public Works Department is having 14341 numbers of irrigation tanks across 37 districts. Out of 14341 tanks, during last 4 years, 5340 tanks have been rehabilitated at an estimated cost of Rs.779.06.43 Crores under Kudimaramathu, Repair, Renovation and Restoration (RRR Phase I-III), Tamil Nadu Irrigated Agriculture Modernisation Project (TNIAMP Phase – I), Desilting of tanks for Chennai City Water Supply.

Rehabilitation of 906 Tanks under Phase – II of Tamil Nadu Irrigated Agriculture Modernisation Project (TNIAMP), Rehabilitation of 89 Tanks under Repair, Renovation and Restoration (RRR Phase IV & V) are to be taken up shortly.

In these 14341 tanks, 37605 No. of encroachment were identified and 20850 No. of Encroachment were evicted.

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3.7 Hindu Religious and Charitable Endowment Department

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

Out of these 2,359 tanks, 1068 tanks were identified for renovation while remaining 1,291 tanks are in good conditions. During the past 8 years this department has repaired, renovated and rejuvenated 849 temple tanks at a cost of Rs.4.69 crores. The Encroachment on temple tanks dumping of garbage and debris, illegal settlement on temple tanks bunds, blockage of inflow of water, mixing of sewage water are some of the hurdles that need to be overcome while taking up restoration and renovation of temple tanks, Further 55water bodies completed in the past six months. At present 4 water bodies taken for rejuvenation and in progress.

3.8 Rejuvenation of polluted river stretches

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

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

The revised action plans for the four polluted river stretches in priority-I (River Sarabanga, Vasista, Thirumanimutharu & Cauvery) were prepared including gap analysis and submitted to CPCB, Delhi on 18.04.2019 after the approval of the River Rejuvenation Committee (RRC) and the same was recommended with conditions by the CPCB Task Team in the 5th review meeting held on 24.04.2019. Also, the revised action plans for the two polluted river stretches in priority-IV & V (River Bhavani & Thamirabarani) were also prepared and submitted to

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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

4. 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	The time frame is proposed to be extended in view of 2nd wave surge in Covid-19 pandemic.
Phase II Gap Analysis		
Declaring the Designated Best use of water bodies and ascertain the quality of water as per standard and survey to identify the source of pollution and prepare long term preventive measures through Detailed Gap analysis on sewage management , industrial effluent management , and Solid waste Management and other associated issues	(8) Presences of major plant and animal communities, (9) Designated Use of Pond or Lake (Drinking /Irrigation/ Aqua culture/ Tourism/Protected Bio Diversity (10) Major outfall details (11) Physical conditions of the water body 912 Water quality (13) Status of sewage management in the Catchment area (14) Status of Industrial Effluent management in the Catchment area (15) Status of solid waste, plastic waste , C& D waste management in the Catchment area and water body.	The time frame is proposed to be extended in view of 2nd wave surge in Covid-19 pandemic.
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 39002 numbers of water bodies have been restored and 2665 are in progress. For the remaining water bodies Data collection and DPR preparation will be completed before 01.10.2021 and all the water bodies will be restored before 30.06.2022.

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

Thematic Area :3(XV)	Coastal Pollution

Current Status	Desirable Level	Gap	Proposal for attending gap
(1) As per thr directions of the Hon'ble National Green Tribunal (NGT) dated 17.9.2019 that 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 prepare 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.	Letters has been sent to District Environmental Engineers of TNPCB, District Collectors 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	Letters were sent to the District Collectors and DEEs of TNPCB for the stoppage of sewage or industrial discharges in to the coastal or marine system and to include the "Prevention of Coastal and Marine Pollution as one of the subjects to be dealt by the District Level committee and the directions of Hon'ble NGT was complied.
(2). As per the directions of the Hon'ble National green Tribunal (NGT), dated 3.12.2019 that all State PCB's/PCCs of coastal States/UTs may give relevant information's to CPCB within one month from the date	The required details such as categorization of coastal areas, status of sewage generation, its treatment and disposal of in coastal areas as per the format prepared by CPCB has to be collected from the coastal districts of	Nil	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.

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, Loval Bodies environment etc, may ensure formulation and execution of plans for sewage treatment and utilization of treated sewage effluent with respect to each city, town , village, adhering to the timeline as directed by Hon'ble Supreme Court STPs must meet the prescribed standards , including Faecal Coliform.	Tamil Nadu and has to be compiled. The details like 100% treatment of sewage /effluent must be ensured and strict coercive action for any violation to enforce rule of law.	NIL	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.
The Hon'ble NGT vide its order dated 21.09.2020 in O.A. No.593/2013 along with O.A.No. 829 /2019 on coastal and marine pollution has directed that an action plan to be prepared on abatement of coastal/marine pollution in the State of Tamil Nadu.	Action plan for the control of coastal/marine pollution is under preparation by Director of Environment, Government of Tamil Nadu.	NIL	The department of Environment is taking up the preparation of action plan by collecting details from the 14 Districts of Tamil Nadu and on receipt of the details, action plan for the State of Tamil Nadu for the abatement of coastal and marine pollution will be submitted.

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Rural Local Bodies

I. Outline of SWM in rural areas of Tamil Nadu

Tamil Nadu is the first State in the Country to have achieved universal coverage in establishing Solid Waste Management facilities in all 12,525 Village Panchayats covering 36 Rural Districts in a phased manner. Around 66,130 Thooimai Kaavalars have been engaged through Village Poverty Reduction Committee (VPRC) / Panchayat Level Federation (PLF) of Self Help Groups (SHG) on an outsourcing basis to facilitate in Door to Door collection and safe disposal of waste. The required infrastructure facilities for the collection, segregation and safe disposal of the waste have also been provided to all the Village Panchayats. In order to cater the special needs of Peri-Urban Village Panchayats and Village Panchayats in Hilly areas, battery operated pushcarts and motorized pickup vehicles respectively, have been provided.

II. Model Vilage Panchayat

In Tamil Nadu, 93 model Village Panchayars have been identified in all the 36 rural Districts, for the purpose to make it fully compliant in Environmental norms, as per the orders issued by the NGT.

(a) Profile:

In 93 model Village Panchayats, there are about 859 Habitations covering around 1,43,215 rural households with the total population of 4,81,793 as per 2011 census.

(b) Collection Mechanism:

814 Thoomai Kaavalars have been engaged to ensure 100 % Door to Door collection of Waste. For collection and transportation, they have been provided with 638 tricycles/push carts and 2,103 street garbage bins. The collected waste is segregated as bio-degradable and non-degradable waste in the 97 Segregation cum Storage shed provided in these Village Panchayats.

(c) Wet Waste processing:

With respect to bio-degradable waste, 194 compost pits are available, where these wastes are composted. In order to enhance the compost, 93 Vermi-Compost sheds have also been established and the Thooimai Kaavalars have also been trained on the Vermi-Composting techniques.

(d) Dry waste processing:

The non-degradable, recyclable waste collected is segregated under various grades and are sold to scrap merchants and are accounted in the SWM account of the Village Panchayat.

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(e) Ban on the Single Use Plastic:

Resolutions have been passed in all the Village Panchayats including the 93 model Village Panchayats banning the use of Single Use and throwaway Plastic.

(f) Present Scenario and proposed activities;

1. Awareness Generation:

- Awareness Generation and training activities are given to the General public and Children in Schools on the importance of Waste Segregation, 4R concept of Waste Management (Refuse, Reduce, Reuse and Recycle), usage of plastic alternatives and Safe handling of Hazardous waste. This will result in increase in the percentage of collection of segregated waste from households and reduction in plastic usage.
- About 13,000 Motivators who are mostly identified from SHGs and our grass-root level workers are being trained on ODF+ activities which include Solid Waste Management, Plastic Waste Management, Liquid Waste Management and ODF Sustinability. A Handbook on Sanitaion has been prepated and used as Resourcee Material for the training programmes.
- Intensive Inter Personal Communication (IPC) activities are carried out by our Field functionaries in all the 12,525 Village Panchayats.

2. Micro Compostion Centre (MCC):

Government Orders have been issued vide G.O. Ms. No. 15, RD & PR Department, dated: 07.01.2020, for the establishment of MCC in the State to facilitate the effective processing of the waste generated in Peri-Urban/ Bigger Village Panchayats.

The model Village Panchayats that are Peri-Urban / Bigger Village Panchayats adjacent to Corporations and Municipalities and satisfying the criteria are given preference for the establishment of MCC. The work on establishment of 300 MCC works is under progress.

3. Grey Water Management:

For the Effective management and Disposal of Grey water Generated from the Households, Individual Household Soak Pits and Community Soak Pits work are taken up on Saturation basis in the Model Village Panchayats.

Community Soaks pits are already constructed in Public places like Hand pumps, OHT tanks, Common Water pipes, etc to prevent water stagnation and to promote Ground water Recharge. Individual Soak pits works are also prioritized for those household which do not have access to the Common drains.

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Furthermore discharge Points of the Common Drains are identified and are addressed through community Soak Pits and other Grey water treatment methods. During 2020-21, 2,130 Village Panchayat have been identified for Grey Water Management under MGNREGS Scheme on a saturation mode basis.

Name and Designation of Designated Officers for ensuring compliance to provisions under Statute

S.No.	Thematic Areas	Name of the Designated Officers	Department
01.	Compliance to Solid Waste Management Rules including Legacy Waste	Thiru. S. Thirumavalavan Superintending Engineer O/o the Commissioner of Municipal Administration, Chennai.	CMA/GCC
02.	Compliance to Bio-medical Waste Management Rules	Dr.S.Selvan Member Secretary TNPCB	TNPCB
03.	Compliance to Construction & Demolition Waste	Thiru. S. Thirumavalavan Superintending Engineer O/o the Commissioner of Municipal Administration, Chennai.	CMA/GCC
04.	Compliance to Hazardous Waste Management Rules	Dr.S.Selvan Member Secretary TNPCB	TNPCB
05.	Compliance to E-Waste Rules	Dr.S.Selvan Member Secretary TNPCB	TNPCB
06.	351 Polluted river stretches in the country	Dr.S.Selvan Member Secretary TNPCB	PWD/TWAD/ CMA/MAWS
07.	122 Non-attainment cities	Dr.S.Selvan Member Secretary TNPCB	TNPCB
08	100 Industrial Clusters	Dr.S.Selvan Member Secretary TNPCB	TNPCB
09.	Status of STPs and re-use of treated water	Thiru. S. Thirumavalavan Superintending Engineer and	CMWSSB/CMA

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		Chief Engineer (STP), CMWSSB	
10.	Status of CETPs/ETPs including performance	Dr.S.Selvan Member Secretary TNPCB	TNPCB
11.	Ground water extraction/contamination and re-charge	Thiru.S.Prabakaran, Chief Engineer (State Ground and Surface Water Resources Data Centre)	PWD
12	Air Pollution including Noise Pollution	Dr.S.Selvan Member Secretary TNPCB	TNPCB
13.	Illegal sand mining	Thiru.Muthiah Superintending Engineer Palar Basin, PWDepartment	PWD/ INDUSTRIES
14.	Rejuvenation of water bodies	Thiru. S. Thirumavalavan Superintending Engineer O/o the Commissioner of Municipal Administration, Chennai.	CMA/PWD/TWAD
15	Coastal Pollution	Dr.S.Selvan Member Secretary TNPCB	TNPCB

Chief Secretary to Government
State of Tamil Nadu

//True Copy//

Under Secretary to Government
M.A. & W.S. Department
Secretariat, Chennai - 600 009.

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