

**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

JULY 2020

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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)

(*) Based on the orders of the Hon'ble National Green Tribunal, dated: 16.01.2019, the quarterly report to be filed by the Chief Secretary to Government, on behalf of the State of Tamil Nadu including the report on the 14 thematic areas, as per the order dated: 12.09.2019 and 7.1.2020 is submitted to Hon'ble National Green Tribunal.

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
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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

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
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Current Compliance Status	Desirable Level	Gap	Proposal for attending gap
<ul style="list-style-type: none"> • 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
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Current Compliance status	Desirable Level	Gap	Proposal for attending gap
<ul style="list-style-type: none"> • 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, 	Achieved	Nil	Complied

<p>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.</p> <ul style="list-style-type: none"> • Safety equipments and uniform provided to sanitary workers. • Workers are encouraged to use protection equipments during their routine collection works and processing activities 			
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<p>SWM Rules 15 (b), (v), (r), (m), (p), (q), (u)</p>	<p>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</p>
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Current Status	Desirable Level	Gap	Proposal for attending gap
Door to Door collection - 94 % Apr:96%	100 %	6 %	Through IEC activities, Door to Door collection & source segregation will be achieved by 31.12.2020.
Source Segregation - 71 % 83%	100 %	29 %	

<p>Processing facilities for wet waste</p> <p>Total Waste Generation in 664 ULBs is 11,437 TPD</p> <ul style="list-style-type: none"> ✓ Total wet waste generation is 5833 TPD (51%) ✓ Waste to Compost Processing facilities (Micro Compost Centres) ✓ 1016 MCC sanctioned to process 3744 TPD of wet waste in 15 Corporations and 121 Municipalities and 42 Town panchayats. So far, 787 MCCs with handling capacity of 2848 TPD have been established and processed for 1856 TPD. In GCC, 743 Mulch Pits, 262 Sintex Tank, 56 Earthen Pit and 3394 units of Well ring with handling capacity of 637 TPD are established and processed for 45 TPD ✓ 876 OCCs are established in Corporations & Municipalities with a handling capacity of 416 TPD as waste to compost and processed for 315 TPD. ✓ 106 Biomethanation plants are established to process 258 TPD of Wet Waste. 526 Windrows and 263 Vermi Composting plants are functioning with capacity of 1171 TPD. ✓ The Overall Processing percentage of wet waste = 62% 	<p>100 %</p>	<p>38 %</p>	<p>In GCC, Construction of one Bio- CNG plant of 50 TPD capacity and 6 Bio-CNG plant of 100 TPD capacities is in progress and also construction of 2 Windrow Composting Centers with a capacity of 50 TPD each is in progress.</p> <p>The construction activities of processing facilities are being reviewed and a target date of 31.03.2021 has been fixed for its completion.</p>
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✓ From June 2016 to June 2020, 65095 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.			
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<ul style="list-style-type: none"> ✓ 29,483 Tonnes of non-saleable, non-recyclable wastes disposed up to 01.06.2020 ✓ 4,820 Tonnes of Non-saleable plastic waste are baled and kept in Resource Recovery Centres. ✓ 3,51,228 MT of recyclable waste were sold and Rs.91.39 Crore distributed to sanitary workers for the period from August 2017 to 30.06.2020 ✓ To dispose the dry waste generated in ULBs, 414 nos of Material Recovery Facilities has been sanctioned of which 377 Nos are completed and put in use and remaining are in progress. The ULBs having land constraints are established the RRCs in the MCCs. ✓ 29,483 Tonnes Non-recyclable wastes generated are sent to cement plants/ sugar mills/ power plants for usage as fuel. ✓ 4,375 MT of non saleable and non recyclable plastic waste have been used for laying 3646 Kms of plastic roads in the last 4 years. 	<p>100% Processing</p>	<p>80%</p>	<ul style="list-style-type: none"> ✓ Ten 100 TPD, four 10 TPD, one 50 TPD and Ten 5 TPD Incineration plant are sanctioned to process Non recyclable combustible waste and the works are in the various stages. ✓ One 10 TPD Incineration plant is functioning to process Non recyclable combustible waste. ✓ Proposed to construct processing of combustible waste as a fuel in cement factory of 300 TPD – tender in process. ✓ Ten 100 kg, Two 20 TPD Pyrolysis plant are sanctioned to process non decomposable and non recyclable waste ✓ Construction of 5 Garden waste & tender coconut shells processing plant at a total capacity of 400 TPD is in progress. ✓ Further the Incineration Plants are proposed to be established in Corporations wherever feasible to process Non recyclable combustible waste to attain the gap.
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SWM Rules 15 (w), (zh), (zi)	Scientific Land fill Desired Objective of Zero Waste Concept
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Current Status	Desirable Level	Gap	Proposal for attending gap
<p>✓ 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 62 % 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.</p> <p>✓ Marching towards “Zero Residue Concept”.</p>	100%	20 %	<p>✓ Ten 100 TPD, five 10 TPD, one 50 TPD and ten 5 TPD Incineration plants are sanctioned to process Non recyclable combustible waste and the works are in the various stages.</p> <p>✓ one 10 TPD Incineration plant is functioning to process Non recyclable combustible waste.</p> <p>✓ Proposed to construct processing of combustible waste as a fuel in cement factory of 300 TPD – tender in process.</p> <p>✓ Ten 100 kg, two 20 TPD Pyrolysis plant are sanctioned to process non decomposable and non recyclable waste</p> <p>✓ Construction of 5 Garden waste & tender coconut shells processing plant at a total capacity of 400 TPD is in progress.</p>

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

Current Status	Desirable Level	Gap	Proposal for attending gap
<ul style="list-style-type: none"> ✓ Reclamation of dump yard filled with legacy waste through bio mining process is proposed. The total legacy waste in the 218 ULBs is 183 lakh cu.m and in balance 446 ULBs there is no legacy waste dumped. ✓ Bio remediation of old and abandoned dump sites have been taken up in 12 Corporations, 87 Municipalities and 44 Town Panchayats to remove the 123 Lakhs Cu.m of Legacy waste through bio mining process at a total estimated cost of Rs. 924.19 Crores. After completion of the biomining works, about 1117 acres of land valuable to Rs.800 Crore will be reclaimed. ✓ Bio Mining works has been completed in Kumbakonam, Pammal, Sembakkam, Poonammaalle, Chidambaram, Idappadi and kankeyam Municipalities. Similarly in Perunthurai, Madhukur and Marakanam Town Panchayats also cleared 4,52,086 Cu.m of legacy waste so far and 31 acres of land has been reclaimed. Works in 133 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 	100%	(Completed 4%) Fund Sanctioned & under progress – 65%	<ul style="list-style-type: none"> ✓ 63 ULBs having <40,000 cu.m of legacy waste will be completed before Dec 2020. ✓ Bio mining works in remaining ULBs will be completed before 31.12.2021. ✓ Regarding the remaining 75 ULBs, the estimated quantity of 60 lakhs cu.m of legacy waste is proposed to be removed in phased by mobilizing required fund from various sources. The time frame

vide GO (Ms) No. 65, MA&WS Department, Dated 18.6.2020 for the removal of legacy waste in <u>Venkatamangalam Compost Yard</u> through Biomining process.			is fixed considering the limitation of availability of service providing operators for removal of legacy waste.
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SWM Rules 15 (x)	Budgetary Provision
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Current Status	Desirable Level	Gap	Proposal for attending gap
<ul style="list-style-type: none"> ✓ Adequate fund provision by SBM through State Government and GoI. <ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> ✓ Annual Report for the year 2018-19 as per Form IV submitted to TNPCB in the month of May 2019. ✓ 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
<ul style="list-style-type: none"> ✓ 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 by Dec 2020. ✓ 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. ✓ Special Task Force have been constituted in all the Districts. District Collectors are conducting the Special Task Force meetings to review the SWM activities in ULBs and MoM are issued. 	Nil	Nil	Complied

SWM Rules 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
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Current Status	Desirable Level	Gap	Proposal for attending gap
<ul style="list-style-type: none"> ✓ 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. 	100%	40%	<p>Alternative methods to process wet waste in accelerated manner is being analysed to suit the hilly climate conditions.</p> <p>Meanwhile, currently Windrow Composting is being practices to process the wet waste.</p>

<ul style="list-style-type: none"> ✓ 11 TPs in Nilgiris District are handling their waste (44.33TPD) through windrow composting. ✓ In Kodaikanal Municipality, one MCC with a handling capacity of 2 TPD and 4 Onsite Composting Centres (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. 			
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SWM Rules	Time frame for implementation
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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
1	Identification of suitable sites for setting up solid waste processing facilities	1 year	Sites are Identified. However 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 5 TPD. Material Recovery Facility/Resource Recovery Facility also proposed in 4 to 10 Locations covering

S. No.	Activity	Time limit from the date of notification of Rules	Present status of compliance by the State of Tamilnadu
			maximum of 10 wards for each locations.
2	Identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or standalone sanitary landfill facilities by all local authorities having a population of 0.5 million or more.	1 year	All the ULBs are in the Way Forward of Processing and Dispose the Waste collected on Day to Day basis with Zero Residue Concept.
3	Procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities.	2 years	<p>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.</p> <p>ten 100 TPD, four 10 TPD, one 50 TPD and ten 5 TPD Incineration plant are sanctioned to process Non recyclable combustible waste and the works are in the various stages.</p> <p>one 10 TPD Incineration plant is functioning to process Non recyclable combustible waste.</p> <p>Proposed to construct processing of combustible waste as a fuel in cement</p>

S. No.	Activity	Time limit from the date of notification of Rules	Present status of compliance by the State of Tamilnadu
			<p>factory of 300 TPD – tender in process.</p> <p>ten 100 kg, two 20 TPD Pyrolysis plant are sanctioned to process non decomposable and non recyclable waste</p> <p>Construction of 5 Garden waste & tender coconut shells processing plant at a total capacity of 400 TPD is in progress.</p> <p>None of the ULBs have landfill since the State is successfully marching towards Zero – Residue Concept.</p> <p>Planned for comprehensive SWM processing facility on Zero residue concepts.</p>
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 segregation has been achieved 71% and expected to 100% before December 2020.
5	Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.	2 years	94% door to door collection achieved and 100% Collection will be achieved before December 2020
6	Ensure separate storage, collection and transportation of construction and	2 years	Proper mechanism for inflow and outflow of C&D waste is being planned by 31.12.2020 and will be fully established.

S. No.	Activity	Time limit from the date of notification of Rules	Present status of compliance by the State of Tamilnadu
	demolition wastes		Currently C& D Waste is being used for laying base course for formation of roads and filling up of low lying areas
7	Setting up solid waste processing facilities by all local bodies having 100000 or more population	2 years	<ul style="list-style-type: none"> ✓ Biodegradable waste collected at door step & processed in Micro Composting Centres (MCCs) in Corporations and Municipalities. ✓ Each MCC will cater to the waste generated from 3000-5000 HHs.
8	Setting up solid waste processing facilities by local bodies and census towns below 100000 populations.	3 years	<ul style="list-style-type: none"> ✓ In 15 Corporations and 121 Municipalities and 42 Town panchayats 787 MCCs were established with handling capacity of 2848 TPD ✓ In GCC, 743 Mulch Pits, 262 Sintex Tank, 56 Earthen Pit and 3394 units of Well ring are established with handling capacity of 637 TPD. ✓ 876 OCCs are functioning in Corporations & Municipalities with a handling capacity of 416 ✓ 106 Biomethanation plants are established to process 258 TPD ✓ 526 Windrows and 263 Vermi Composting plants are functioning with capacity of 1171 TPD
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	3 years	Reply 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
	such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules		
10	Setting up common or regional sanitary landfills by all local bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules	3 years	Reply as serial no. 2 & 3 above
11	Bio-remediation or capping of old and abandoned dump sites	5 years	<ul style="list-style-type: none"> ✓ Reclamation of dump yard filled with legacy waste through bio mining process is proposed. The total legacy waste in the 218 ULBs is 183 lakh cu.m and in balance 446 ULBs there is no legacy waste dumped. ✓ Bio remediation of old and abandoned dump sites have been taken up in 12 Corporations, 87 Municipalities and 44 Town Panchayats to remove the 123 Lakhs Cu.m of Legacy waste through bio mining process at a total estimated cost of Rs. 942.35 Crores. After completion of the biomining works, about 1117 acres of land valuable to Rs.800 Crore will be reclaimed. ✓ Bio Mining works has been completed in Kumbakonam, Pammal,

S. No.	Activity	Time limit from the date of notification of Rules	Present status of compliance by the State of Tamilnadu
			<p>Sembakkam, Poonammaalle, Chidambaram, Idappadi and kankeyam Municipalities. Similarly in Perunthurai, Madhukur and Marakanam Town Panchayats also cleared 4,52,086 Cu.m of legacy waste so far and 31 acres of land has been reclaimed. Works in 133 ULBs are in various stages.</p> <p>✓ All the Sanctioned Bio mining works will be completed before 31.12.2021.</p> <p>✓ Regarding the remaining 75 ULBs, the estimated quantity of 60 lakhs cu.m of legacy waste is proposed to be removed in phased 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.</p>
12	Legal Frame Work		<ol style="list-style-type: none"> 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		<p>TNPCB submitted Annual Report for the year 2018-19 to the Central Pollution Control Board on 16.07.2019.</p>

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
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Current Status	Desirable Level	Gap	Proposal for attending gap
<ul style="list-style-type: none"> • 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, Commissionerate of Municipal Administration & Directorate of Town panchayat 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 to 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 	As indicated in SWM Rule 2016	Nil	Complied

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)
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Current Status	Desirable Level	Gap	Proposal for attending gap
<ul style="list-style-type: none"> • TNPCB conducted Ground Water Quality monitoring at the vicinity of solid waste dumpsites pertaining to 15 Corporations and at 97 Municipalities. • TNPCB conducted Ambient Air Quality monitoring at the vicinity of solid waste dumpsites pertaining to 9 Corporations namely, Chennai, Avadi, Coimbatore, Madurai, Trichy, Salem, Erode, Thoothukudi, Vellore. • Continuous Ambient Air Quality Monitoring stations installed at the vicinity of Kodungaiyur and Perungudi dumpsites. 	<p>To carry out Ground Water Quality Monitoring (ground water), for all Corporations (15) and Municipalities (119) which have obtained Authorisation and Ambient Air Quality Monitoring for all Corporations</p>	<p>Ground water quality monitoring to be carried out for remaining Municipalities (22 nos.)</p> <p>Ambient Air Quality monitoring to be carried out for remaining Corporations (6 nos.)</p>	<p>TNPCB carry out Water Quality Monitoring around vicinity of SWM facilities / dumpsites for Municipalities (22 nos.) at the earliest.</p> <p>TNPCB carry out Ambient Air Quality Monitoring around vicinity of SWM facilities / dumpsites for Corporations (6 nos.) at the earliest.</p>

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
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Current Status	Desirable Level	Gap	Proposal for attending gap
<ul style="list-style-type: none"> In Tamil Nadu, 15 Corporations, 119 Municipalities and 85 Town Panchayats generate solid waste greater than 5 tons/day and require Authorisation. As of now, TNPCB had 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
<ul style="list-style-type: none"> 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 2018-19 to the Central Pollution Control Board on 16.07.2019. Annual Report for the year of 2019-20 is under process. 	To submit Annual Report to the CPCB before 31 st July every year	Nil	Submitted

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

BWM	Duties of Occupier of HCF
Rule 4 (d)	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	Duties of Occupier of HCF
Rule 4 (i)	Bar- Code System for bags

Current Status	Desirable Level	Gap	Proposal for attending gap
There are totally 11 CBMWTFs of which the following 3 namely (1). M/s. Society for Biomedical Waste Management, Nilgiris (2). M/s. Neat & Clean Service Squad, Ramnad and (3).M/s. Kovai Bio Medical Waste	Implementation of Bar coding by all the HCFs in co-ordination with the CBMWTFs.	To ensure that all the HCFs implement Bar coding system.	All the CBMWTFs have been issued with Directions under Section 5 of Environmental (Protection) Act, 1986 vide Proc. dated 27.12.2019 to

<p>Management have been issued with closure direction and disconnection of power supply for non compliance of BMWM rules.</p> <p>Bar coding system has been implemented in 68% of the HCFs and for the remaining HCFs Bar coding system is under implementation.</p>			<p>implement Bar coding system in the HCFs attached with them.</p> <p>Further instructions have been issued to all the HCFs through the District Environmental Engineers.</p> <p>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.</p>
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<p>BWM Rule 4 (p)</p>	<p>Duties of Occupier of HCF Annual report on its web-site</p>		
<p>Current Status</p>	<p>Desirable Level</p>	<p>Gap</p>	<p>Proposal for attending gap</p>
<p>All the HCFs have been instructed to upload the Annual report in their website.</p>	<p>Uploading of Annual Report in Form – IV by the bedded HCFs in their websites as per the Biomedical Waste</p>	<p>To ensure that all the bedded HCFs upload the Annual report in their</p>	<p>Conditions have been imposed in the Consent orders issued to the HCFs to upload the Annual report</p>

	Management Rules, 2016 as amended in 2019.	website as per BMWM Rules, 2016 as amended in 2019.	in their website. Further instructions have been issued to all the HCFs through the District Environmental Engineer. Also, TNPCB uploaded standing instructions to all the HCFs in the TNPCB website directing all the HCFs to comply with the rules including uploading of Annual Report by the HCFs.
BWM Rule 4 (t)	Duties of Occupier of HCF Existing incinerators to achieve retention time in secondary chamber		

Current Status	Desirable Level	Gap	Proposal for attending gap
In Tamil Nadu, no individual biomedical waste treatment and disposal facilities are available. The entire biomedical waste generated from the HCFs is disposed through 11 Common Biomedical Waste Treatment and Disposal Facilities located in Tamil Nadu and achieving incinerators retention time in	--	NIL	--

secondary chamber except M/s. Medicare Enviro Systems, Thanjavur			
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BWM Rule 5 (c)	Duties of Occupier of CBMWTFs Bar coding and global positioning system
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Current Status	Desirable Level	Gap	Proposal for attending gap
<p>Bar coding system and GPS Tracking system :</p> <p>There are totally 11 CBMWTFs of which the following 3 namely (1). M/s. Society for Biomedical Waste Management, Nilgiris (2). M/s. Neat & Clean Service Squad, Ramnad and (3).M/s. Kovai Bio Medical Waste Management have been issued with closure direction and disconnection of power supply for non compliance of BMWWM rules.</p> <p>Bar coding system has been implemented in 68% of the HCFs and for the remaining HCFs, Bar coding system is under implementation.</p>	<p>100 % Implementation of Bar coding by all the HCFs in co-ordination with the CBMWTFs.</p>	<p>To ensure that all the HCFs implement Bar coding system.</p>	<p>All the CBMWTFs have been issued with Directions under Section 5 of Environmental (Protection) Act, 1986 vide Proc. dated 27.12.2019 to implement Bar coding system in the HCFs attached with them.</p> <p>Further instructions have been issued to all the HCFs through the District Environmental Engineers.</p>

All the vehicles of the CBMWTFs have been fitted with GPS Tracking system.			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.
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BWM Rule 5 (I)	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
<p>All the CBMWTFs are uploading the daily report on the waste collected and treated in their website except one facility M/s. Neat & Clean Service Squad, Ramnad which is under closure.</p> <p>M/s. Neat & Clean Service Squad, Ramnad was issued with closure direction and disconnection of power supply vide Proc. dated 06.05.2019, as the unit was practising deep burial of biomedical waste and no requisite treatment equipments were available.</p>	--	Nil	Nil

BWM	Duties of Occupier of CBMWTFs
Rule 5 (q)	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

<p>Out of 11 CBMWTFs, 9 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.</p> <p>Out of 9 CBMWTFs having incinerators, 8 CBMWTFs are achieving the standards for retention time in secondary chamber.</p>			
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BMWM Rules	Duties of Occupier of CBMWTFs Online connectivity of CBMWTFs		
Current Status	Desirable Level	Gap	Proposal for attending gap
<p>Out of 11 CBMWTFs, 8 facilities have installed online monitoring system for the parameters PM, NO_x, HCl, CO, CO₂ & O₂. Remaining three facilities namely (1) M/s. Society for Biomedical Waste Management, Nilgiris (2) M/s. Neat & Clean Service Squad, Ramnad and (3) M/s. Kovai Bio Medical Waste Management have been issued with closure direction and disconnection of power supply for non compliance of BMWM rules.</p>	-	--	Achieved

BMW (Schedule III) 6 (i)	Rule	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 inventorised 21584 Health Care Facilities (Private and Government hospitals) sofar. 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 (Schedule III) 6 (ii)	Rule	Duties of State Pollution Control Board Annual Report
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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 2018 vide TNPCB letter dated 17.04.2019.	-	-	-

BMW (Schedule III) 6 (v)	Rule	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
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Current Status	Desirable Level	Gap	Proposal for attending gap
Out of 11 Common Biomedical Waste Treatment and Disposal Facilities, 3 facilities namely, M/s. Kovai Biowaste Management Ltd, Coimbatore, M/s Society for Biomedical Waste Management,	--	--	-

<p>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.</p> <p>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.</p> <p>Directions were issued to 24 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, 16 HCFs including Government Hospitals were levied with Environmental Compensation for non-compliance of Directions issued to the HCF, out of which four HCFs have remitted the compensation.</p>			
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MW Rule (Schedule III) 6 (vi)	Duties of State Pollution Control Board Undertake Inventory of Bio- Medical Waste
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Current Status	Desirable Level	Gap	Proposal for attending gap
TNPCB has inventorized 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
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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	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.	Third party audit of the CBMWTFs will be carried out within three months from the issue of work order to the Institutions.

<p>furnish cost estimate to carryout performance evaluation of CBMWTFs.</p> <p>Further M/s. Teknotherm Industries, Coimbatore has conducted third party audit through Anna University, Chennai and M/s. Tamilnadu Waste Management Ltd, Kancheepuram through IIT, Chennai.</p>			
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BMW (Schedule III) 6 (x)	Rule Duties of State Pollution Control Board Advisory Committee
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Current Status	Desirable Level	Gap	Proposal for attending gap
<p>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.</p> <p>First State Level Advisory Committee meeting was held on 10.05.2017 and Second State Level Advisory Committee meeting on 10.01.2018.</p> <p>Further, Third, Fourth & Fifth State Level Advisory Committee meetings were held on 25.09.2018, 10.04.2019 & 26.11.2019.</p>	<p>—</p>	<p>Nil</p>	<p>-</p>

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.			
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BMW Rule (Schedule III) 6 (x)	Duties of State Pollution Control Board List of Registered or Authorised (or give consent) Recyclers
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Current Status		Desirable Level	Gap	Proposal for attending gap
The list of the Registered/ consented Recyclers has been published in the TNPCB website.		—	NIL	Achieved
BMW Rule Others	Duties of State Pollution Control Board Formation of District Planning Committee as per the Hon’ble NGT order dated 15.07.2019 in O.A. No.710-713/2017			

Current Status	Desirable Level	Gap	Proposal for attending gap
As per the Hon’ble NGT order dated 15.07.2019 in O.A. No.710/2017, District Committee have been formed and functioning in each District. Further, as	—	-	-

<p>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 prepared State Environmental Plan and the same was submitted to the CPCB as per Hon'ble NGT order.</p>			
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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
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Current Status	Desirable Level	Gap	Proposal for attending gap
<ul style="list-style-type: none"> ✓ 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 revised the DPR and tender will be called at the earliest. ✓ Trichy Corporation has called for tender in August 2020 ✓ Madurai Corporation has called for EOI due on 25.08.2020 ✓ Administrative Sanction to be obtained for Tiruppur Corporation. 	100%	100%	<p>Proper mechanism for inflow and outflow of C&D waste is being planned by 31.12.2020 and will be fully established.</p> <p>Currently C& D Waste is being used for laying base course for formation of roads and filling up of low lying areas</p>

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 3607 units generating hazardous wastes as on 31.03.2019 & Authorization issued to 3584 units.	-	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.		
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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:
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Current Status	Desirable Level	Gap	Proposal for attending gap
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
<p>List of Recycling units for recycling of Hazardous Waste under Schedule i, III & IV for which authorization issued under HOWM Rules 2016.</p> <ol style="list-style-type: none"> 1. Recycling units such as Used Oil - 21 No, 2. Waste oil – 13 Nos, 3. Lead bearing waste including battery waste – 24 Nos, 4. Recovery of Solvent from spent solvent – 8 Nos, 5. Zinc & Zinc Ash – 7 Nos 6. Copper Scrap – 3 Nos 	-	Nil	-

<p>7. Brass Dross – 1No. 8. Spent Catalyst – 1No. 9. E-Waste – 3 Nos.</p> <p>1. The Board has authorized 11 cement plants for co processing of 6.24 Lakhs MTonnes per annum of utilizable wastes in cement kilns. During the year 2018-19, about 1.32 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</p> <p>1.M/s GEPIL- Vellore – Authorized capacity – 2500TPA 2.M/s Sandhya Enviro Tech System – Villupuram- 5023 T/A</p>															
<table border="1"> <thead> <tr> <th colspan="2">Recyclable/Utilizable Waste Disposal for the period 2018-19</th> </tr> <tr> <th>Recyclable Hazardous Waste generation (T/A)</th> <th>Utilizable Hazardous Waste Generation (T/A)</th> </tr> </thead> <tbody> <tr> <td>113645.238 MT</td> <td>572627.939 Tons</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>Hazardous waste recycled through Recyclers - 75 Nos (Total capacity - 498412 T/A)</td> <td>Hazardous waste Utilized through utilisers, pre processor & Co procesing in cement plant (11 nos)- 1212531.6 T/A</td> </tr> <tr> <td>124780 Tons</td> <td>550469.28Tons</td> </tr> </tbody> </table>	Recyclable/Utilizable Waste Disposal for the period 2018-19		Recyclable Hazardous Waste generation (T/A)	Utilizable Hazardous Waste Generation (T/A)	113645.238 MT	572627.939 Tons			Hazardous waste recycled through Recyclers - 75 Nos (Total capacity - 498412 T/A)	Hazardous waste Utilized through utilisers, pre processor & Co procesing in cement plant (11 nos)- 1212531.6 T/A	124780 Tons	550469.28Tons			
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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						
<p>There are 2 Nos of TSDF facilities located in Tamilnadu.</p> <p>1. M/s Tamilnadu Waste management Limited, Export Promotion Industrial Park (EPIP), SIPCOT Gummidipoondi , Tiruvallur District (Capacity Land fillable – 100000 T/A & Incineration – 1.5 T/hr)</p> <p>2. M/s Tamilnadu Waste management Limited Undurumikidakulam, A Mukkulam Village, Thiruchuli Taluk, Virudhunagar District (Capacity Land fillable – 240000 T/A)</p> <p>Land fillable Hazardous Waste Disposal for the period 2018-19</p> <table border="1" data-bbox="253 1046 1039 1240"> <tr> <td data-bbox="253 1046 719 1161">Land fillable HW received (T)</td> <td data-bbox="719 1046 1039 1161">Land fillable Hazardous Waste Disposal (T)</td> </tr> <tr> <td data-bbox="253 1161 719 1203">73989.3 MTons</td> <td data-bbox="719 1161 1039 1203">74144.3 M Tons</td> </tr> <tr> <td data-bbox="253 1203 719 1240">+155 Stock</td> <td data-bbox="719 1203 1039 1240"></td> </tr> </table>		Land fillable HW received (T)	Land fillable Hazardous Waste Disposal (T)	73989.3 MTons	74144.3 M Tons	+155 Stock		-	Nil	-
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+155 Stock										

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.-
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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 dispsaal 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
TNPCCB has identified 3607 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	-
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
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Current Status	Desirable Level	Gap	Proposal for attending gap
<ul style="list-style-type: none"> • 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 Ir dated 29.01.2020. The Project duration is 6 months. Due to the spread of COVID 19 pandemic, there is a delay in collection data, hence the work will be completed by Sep'2020. • As per the Annual Report 2018-19, E-waste collected and channelized to the authorized 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • InventORIZATION of E-waste generation in the entire State will be completed on submission of National Productivity Council study report . <p>TNPCB to verify the EPR Authorized producers, collection centres, dismantlers, recyclers on quarterly basis and submit report to CPCB periodically. Quarterly report for the fourth quarter January 2020 to March 2020 has been submitted to CPCB on 18.06.2020.</p>

<p>dismantlers / recycler is 32282.60 Tonnes.</p> <ul style="list-style-type: none"> • TNPCB has authorized 25 Dismantlers, One Refurbisher and two Recycler. • 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 Head 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 	<p>dismantler or recycler.</p>		
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<p>orders issued by the Hon'ble NGT. Press release was also issued in all the Districts in this regard.</p> <ul style="list-style-type: none"> • In order to identify producers who have not 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 			
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<p>National Green Corps, Eco Clubs and Scouts. They will conduct awareness programme to the students in the schools.</p> <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> ➤ Member Secretary, TNPCB - State Level ➤ District Environmental 			
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<p>Engineer- Dist. Level</p> <ul style="list-style-type: none"> ➤ Commissioner/Executive Officer: ➤ Corporation/Municipality/Town Panchayat <ul style="list-style-type: none"> • 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 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 			
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<p>authorized facilities and to comply with the provisions of the E Waste Rules, 2016.s.</p> <ul style="list-style-type: none"> • 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 			
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<p>management) were conducted in the 11 Districts of Tamil Nadu.</p> <ul style="list-style-type: none"> • 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 guidelines to all the District 			
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<p>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.</p> <ul style="list-style-type: none"> • 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 & 06.12.2019
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Current Status	Desirable Level	Gap	Proposal for attending gap
<p>In Tamil Nadu, CPCB has identified 6 Nos. of Polluted River Stretches based on the 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).</p> <ol style="list-style-type: none"> 1. River Sarabanga – Thathayampatti to T.Konagapadi Stretch-(15Kms)-Priority-I (BOD > 30 mg/l), CPCB data as on Sep-2018 BOD – 78.0 mg/l, Current status as on Jan-2020 to Apr-2020 (sub surface sample) - BOD – >2, DO – 6.5, FC – 14 MPN/100ml.. 2. River Thirumanimutharu–Salem to Papparapatti Stretch-(15Kms) – Priority-I (BOD > 30 mg/l), CPCB data as on Sep-2018 BOD – 190.0 mg/l, Current status as on Jan-2020 to Apr-2020 (sub surface sample) - BOD < 2, DO – 6.7, FC – 17 MPN/100ml. Jan-2020 to Apr-2020 (River Sample) BOD – 15, DO – 3.9, FC – 11000 MPN/100ml. 	<p>To bring the river water fit for bathing standards (Class-B standard) – Bio-chemical Oxygen Demand (BOD) less than 3.0 mg/l, Dissolved Oxygen more than 5.0 mg/l and Faecal Coliform to be less than 500 MPN/100ml.</p>		<ul style="list-style-type: none"> ➤ 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 NGT (PB) order dated 08.04.2019 in O.A No. 673/2018. ➤ 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

<p>3. River Vasista – Manivilundhan to Thiyaganur Stretch-(10Kms) – Priority-I (BOD > 30 mg/l), CPCB data as on Sep-2018 BOD – 675.0 mg/l, Current status as on Jan-2020 to Apr-2020 (sub surface sample) – BOD<2, DO – 6.8, FC – 11 MPN/100ml. Jan-2020 to Apr-2020 (River Sample) BOD – 24, DO –Nil, FC – 17000 MPN/100ml.</p> <p>4. River Cauvery – Mettur to Mayiladuthurai Stretch-(200Kms) - Priority-I(BOD > 30 mg/l), CPCB data as on Sep-2018 BOD – 3.3 to 32.0 mg/l, Current status as on Jan-2020 to Apr-2020 (River Sample) BOD<2, DO –6.5, FC – 400 MPN/100ml.</p> <p>5. River Bhavani – Sirumugai to Kalingarayan Stretch-(60Kms) - Priority-IV (BOD 6.0 to 10 mg/l), CPCB data as on Sep-2018 BOD – 3.3 to 6.6 mg/l, Current status as on Jan-2020 to Apr-2020 (River Sample) BOD<2, DO –6.8, FC – 130 MPN/100ml.</p> <p>6. River Thamirabarani – Pappankulam to Arumuganeri Stretch-(80Kms) - Priority-V (BOD 3.0 to 6.0 mg/l), CPCB data as on Sep-2018 BOD – 3.1 to 4.0 mg/l, Current status as on Jan-2020 to Apr-2020 (River Sample) BOD-2.3, DO –7.0, FC – 120 MPN/100ml.</p> <p>➤ Action plans for six polluted river stretches (Priority I: 4Nos, Priority-IV: 1 No. Priority-V: 1 No.) submitted to</p>			<p>to prepare the action plan and to monitor the execution of action plan for the polluted river stretches in Tamilnadu. 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.</p> <p>RRC meeting was convened on 15.07.2019 with the concerned line departments and requested</p>
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<p>CPCB.</p> <ul style="list-style-type: none"> ➤ As per the Hon'ble NGT (PB) order the action plans for six Polluted River Stretches 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 communicated to CPCB. ➤ Action Taken Report on action plans for the six polluted river stretches for the period upto August-2019 received from the concerned line departments are compiled and copy circulated to RRC members and also furnished to CPCB vide T.O 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 communicated to CPCB. ➤ Executive summary for the approved action plans under priority-I polluted river stretches (River Sarabanga, Vasista, Thirumanimutharu and Cauvery) have been submitted to CPCB vide TNPCB letter no. TNPCB/DD(L)/F.No.6849/PRS-ES/2016 dated: 			<p>to follow up the implementation of action plan proposed and also to furnish the action taken report.</p> <ul style="list-style-type: none"> ➤ The District Level Committee is also formed to monitor and review the action plans proposed by the concerned line departments at District level for the Hon'ble NGT Order in O.A. No. 606/2018 dated 23.04.2019. The same District level committee will also monitor and review the action plans proposed by the concerned line departments at District level for the
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<p>27/12/2019 and mail dated 02/01/2020.</p> <ul style="list-style-type: none"> ➤ Government of Tamil Nadu has directed TNPCB to furnish the performance guarantee of Rs. 10 crores for the six polluted river stretches and also compensation of Rs. 4 crores paid to CPCB (as per Hon'ble NGT order) on behalf of State of Tamil Nadu. ➤ Accordingly Board approved vide B.P. No. 80 dated: 04/12/2019 for furnishing of performance guarantee of Rs. 10.00 Crores and to remit the compensation/penalty of Rs. 4.00 Crores to CPCB by utilizing Board's fund after getting the Government Order (G.O). 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 the issue of necessary G.O. and awaiting 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 the time limit specified for the execution and completion of Rejuvenation of Polluted River Stretches in the States and also the monitoring mechanism for the Rejuvenation of Polluted River Stretches. 			<p>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 and the minutes of the meeting shall be uploaded in the website periodically.</p> <ul style="list-style-type: none"> ➤ Government of Tamilnadu has proposed a project in the name of "Nadanthai Vaazhi Cauvery" in Tamilnadu which is a Massive Rejuvenation programme for Cauvery and its Tributaries including River Sarabanga, Thirumanimutharu and
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			<p>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.</p> <p>➤ Hon'ble Chief Minister of Tamil Nadu has also announced in the assembly for the rejuvenation of River Thamirabarani similar to River Cauvery Rejuvenation program. Further, Hon'ble Minister for Municipal Administration and Water</p>
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<p>➤ 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 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</p>		<p>➤ To identify the gap for the generation and treatment of sewage in the six polluted river stretches and to furnish information about the compliance of directions</p>	<p>Supply Department has also announced in the assembly for the rejuvenation of the Rivers Cauvery, Vasista, Sarabanga, Bhavani and Tamirabarani by constructing STPs in the near by Town panchayat along the River stretches.</p>
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<p>systems.</p> <ul style="list-style-type: none"> ➤ RRC meeting was held on 24.02.2020 under the Chairmanship of the Principal Secretary, Environment & Forests Department along with the RRC members and concerned line departments to review the action plan for the rejuvenation of River Bhavani under priority-IV for the 10th Task Team meeting prior to 26.02.2020 through Video conference. ➤ 10th CPCB Task Team meeting was conducted through 		<p>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.</p>	
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<p>video conference with the concerned line departments on 26.02.2020 at TNPCB, Guindy, Chennai for the approval of action plan for the River Bhavani which was already submitted to CPCB by the Government of Tamil Nadu. TNPCB and other department officials explained about the action plan and its progress of rejuvenation work going on in Tamil Nadu to the CPCB Task Team.</p> <ul style="list-style-type: none"> ➤ River Bhavani action plan was Recommended with conditions/approved by the CPCB Task Team vide CPCB letter No. F.No. A-14011/1/2020-WQM-I/301 dated: 11.03.2020. So far the action plan for Polluted River stretches such as River Sarabanga, Thirumanimutharu, Vasista, Cauvery and Bhavani have been approved by the CPCB Task Team. The Task Team also 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 CMA, DEEs of TNPCB Perundurai, Coimbatore North vide TNPCB letter dated 20.03.2020 and the details received were consolidated and submitted to 			
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<p>CPCB vide letter dated 30.06.2020.</p> <ul style="list-style-type: none"> ➤ National Mission for Clean Ganga (NMCG), Ministry of Jal Shakti, New Delhi have been conducting monthly review meeting with the concerned line department officials of the State Government through video conference on the progress of rejuvenation work 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 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 his observations and recommendations after the assessment of Polluted River Stretches in Tamil Nadu. 			
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<ul style="list-style-type: none"> ➤ Based on the Central Monitoring Team observations and recommendations, details were requested from the concerned line departments vide TNPCB letter dated 21.05.2020 & 12.06.2020 and the details received were consolidated and submitted to the Central Monitoring Team, NMCG, Ministry of Jal Shakti vide letter dated 30.06.2020. ➤ Letter Addressed to Executive Director- Technical NMCG- Jal shakti requesting them to delist River Bhavani and River Tamirabarani from polluted River Stretches based on the BOD values and also categorize River Cauvery from priority I to Priority IV on 30.06.2020 with a copy to CPCB. ➤ Progress Report for the month of May-2020 have been submitted to the Ministry of Jal Shakti with a copy to CPCB vide TNPCB letter dated 18.06.2020. ➤ 3rd Central Monitoring Committee meeting was held on 23.06.2020 under the Chairmanship of Secretary, Department of Water Resources, RD&GR, Ministry of Jal Shakti, New Delhi through video conference regarding the status of rejuvenation of Polluted River Stretches in the 			
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<p>States/UTs. In Tamil Nadu, the Additional Chief Secretary to Government, Environment & Forests Department headed the 3rd Central Monitoring Committee meeting conducted through video conference along with the concerned line departments. The Additional Chief Secretary to Government, Environment & Forests Department briefed about the Rejuvenation of six Polluted River Stretches and the status of rejuvenation activity carried out in Tamilnadu.</p>			
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Thematic Area: 7. 122 Non-attainment Cities

Thematic Area :3(VIII)		Status of Non –attainment cities (Thoothukudi)	
Current Status (PM ₁₀ -133 mg/m ³)	Desirable level (<PM ₁₀ -60 mg/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. The action plan for the reduction of PM ₁₀ for the newly declared Trichy town was prepared and submitted to CPCB after getting the approval from Air Quality Monitoring Committee	Reduction of PM ₁₀ in Thoothukudi city and Trichy city.	The current annual values of PM ₁₀ for the year ended March-2019 are considerably lower ie at 89 Microgram /cuboicmeter when compared to the previous years but still above the annual standard value of 60 microgram/cubic meter	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 6.0 lakhs as grant in aid for the Thoothukudi city. The action plan for the non attainment city Trichy will be implemented on receipt of approval from Central Pollution Control Board, Delhi. TNPCCB has issued notification for the retrofitting of DG sets of capacity above 125 KVA to reduce air pollution caused by DG Sets (Notification No. TNPCCB/Labs/DD(L)/0215/2019 dt.10.06.2020.

Thematic Area: 8. 100 Industrial Clusters

Thematic Area :4(IV)			Status of Comprehensive Environmental Pollution Index																																																									
Current Status			Desirable Level	Gap		Proposal for attending gap																																																						
<p>CEPI Index evolved by CPCB in 2018:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Sl. No</th> <th style="width: 60%;">Name of Polluted Industrial Area (PIAs) in Tamilnadu</th> <th style="width: 30%;">*CEPI Score</th> </tr> </thead> <tbody> <tr><td>10</td><td>Manali</td><td>84.15</td></tr> <tr><td>21</td><td>Vellore</td><td>79.38</td></tr> <tr><td>32</td><td>Tiruppur</td><td>72.39</td></tr> <tr><td>34</td><td>Mettur</td><td>71.82</td></tr> <tr><td>50</td><td>Tuticorin</td><td>66.34</td></tr> <tr><td>60</td><td>Coimbatore</td><td>63.64</td></tr> <tr><td>62</td><td>Cuddalore</td><td>62.56</td></tr> <tr><td>67</td><td>Erode</td><td>60.33</td></tr> </tbody> </table> <p>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</p>			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	<p>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.</p> <p>The CEPI Index shall be reduced below 60 .</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Name of Polluted Industrial Area (PIAs) in Tamilnadu</th> <th style="width: 20%;">CEPI Score</th> <th style="width: 40%;">Desirable Limits</th> </tr> </thead> <tbody> <tr><td>Manali</td><td>84.15</td><td><60</td></tr> <tr><td>Vellore</td><td>79.38</td><td><60</td></tr> <tr><td>Tiruppur</td><td>72.39</td><td><60</td></tr> <tr><td>Mettur</td><td>71.82</td><td><60</td></tr> <tr><td>Tuticorin</td><td>66.34</td><td><60</td></tr> <tr><td>Coimbatore</td><td>63.64</td><td><60</td></tr> <tr><td>Cuddalore</td><td>62.56</td><td><60</td></tr> <tr><td>Erode</td><td>60.33</td><td><60</td></tr> </tbody> </table>		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	<p>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.</p> <p>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,</p>
Sl. No	Name of Polluted Industrial Area (PIAs) in Tamilnadu	*CEPI Score																																																										
10	Manali	84.15																																																										
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Industrial Areas. TNPCB has followed the mechanism for new activities/expansion of Red & Orange category Industries in the above said Polluted industrial Areas.

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

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

			<p>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.</p>
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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
<p>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.</p> <p>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.</p> <ul style="list-style-type: none"> ✓ 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 is supplied for industrial purposes at the rate of Rs.18.40/KL is supplied from the year 1993. ✓ 0.23 MLD is supplied to GCC & TNRDC for landscaping and gardening purposes at the rate of Rs.8.35/KL. ✓ The remaining treated waste water is being discharged into the Chennai city water ways as per TNPCB norms. 	100%		<p>CMWSSB has set itself an ambitious target for complete recycle and reuse by 2030</p> <p>At Present – 12.5%</p> <p>2025 - 50%</p> <p>2030 - 100%</p>

<ul style="list-style-type: none"> ✓ The former Hon'ble Chief Minister of Tamil Nadu J.Jayalalitha earlier announced in 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. ✓ Further the Hon'ble Minister for Local Administration has recently announced in the floor of Assembly that the capacity of the TTRO plants will be increased to 60 mld each. ✓ The two TTRO Plant of each 45 MLD capacity, for which the works commenced on 25.11.2016 completed and is commissioned recently by the Hon'ble Chief Minister of Tamil Nadu. ✓ CMWSSB in continuing its efforts to augment supply of water through sustainable sources 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. 			
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<ul style="list-style-type: none"> ✓ 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 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 Hon'ble Chief Minister of Tamil Nadu Thiru Edapadi K. Palaniswamy 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. <p>In this regard, the work for preparation of DPR has been taken up in association with IIT and DoST, GoI, the following works done,</p> <ul style="list-style-type: none"> ✓ Lake – Location and areal extend – 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. 			
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<ul style="list-style-type: none"> ✓ 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 estimates the recharge potential of the area ✓ Identifying other storage locations – abandoned quarries, underground storage, aquafers and low-lying area ✓ Draft DPR has been submitted to IIT Chennai and members of SUTRAM under DoS&T GoI <p>Review on the draft DPR was held in IIT Chennai on 09.01.2020</p> <p><u>Enhancement of Sewage Treatment Capacity</u></p> <ul style="list-style-type: none"> ✓ 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) ✓ Capcacity 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. 			
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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 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 Cooum river and the works are taken up in a phased manner.

<p>➤ Out of the 135 ULBs, Under Ground Sewerage Schemes have been taken up for implementation in 58 ULBs and completed in 38ULBs and others in various stage of implementation.</p> <p>➤ In UGSS completed towns, 44 no. of STPs completed & functioning.</p> <p>➤ 27 no. of STPs work are under progress in 21 ULBs.</p> <p>MOU signed for the sale of Secondary Treated Effluent Water (STEW) in the following ULBs:</p> <p>➤ Nagapattinam - 2.00MLD - M/s KVK Power for cooling purpose</p> <p>➤ Dindugul - 5.00MLD - to maintain the TDS level of Tanners as well for Agro- forestry.</p> <p>➤ Tirunelveli - 24.00MLD - Nanguneri SEZ for Industries</p> <p>➤ Perambalur - Negotiation is under progress with MRF Industries for the sale of STEW of 3.00 MLD.</p> <p>➤ Ramanathapuram - 3.00MLD - NTC Infra</p> <p>➤ Pollachi - 11.50MLD - Agricultural use</p> <p>MoU in pipeline ULBs</p> <p>➤ Arakkonam - 7.00MLD - MRF Industrial use</p> <p>Direct Agriculture Use</p> <p>➤ Chinnamannur - 3.00MLD - Agricultural use</p> <p>➤ Karur - 7.00MLD - Agricultural use</p>	<p>100%</p>	<p>CMA has set itself an ambitious target for complete recycle and reuse by 2035.</p> <ul style="list-style-type: none"> • At Present – 2.5% • 2020 - 15% • 2025 - 50% • 2030 – 85% • 2035 – 100% <p>State Government have came out with a policy on reuse of treated wastewater. The policy envisages establishment of wastewater grids to promote the use of treated water for industrial, agriculture or non drinking purpose domestic use. Appointment of consultant for preparation of DPR for feasible grids was delayed</p>
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			due to COVID-19 situation. 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:
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Current Status -June - 2020	Desirable Level	Gap	Proposal for attending Gap																				
<u>Compliance status of ETPs:</u> <table border="1" style="margin-left: 20px;"> <tr> <td>No. of industries which require ETP</td> <td align="center">11264</td> </tr> <tr> <td>No. of industries having functional ETP</td> <td align="center">11257</td> </tr> <tr> <td>No. of industries complying</td> <td align="center">11216</td> </tr> <tr> <td>No. of industries non-complying</td> <td align="center">41</td> </tr> <tr> <td>Show cause notice issued</td> <td align="center">21</td> </tr> <tr> <td>Closure directions issued</td> <td align="center">20</td> </tr> <tr> <td>No of Industries against which action is under process/any other (prescribed)</td> <td align="center">0</td> </tr> <tr> <td>No. of industries operating without ETP</td> <td align="center">7</td> </tr> <tr> <td>Show cause notice issued</td> <td align="center">7</td> </tr> <tr> <td>Closure Direction issued</td> <td align="center">7</td> </tr> </table>	No. of industries which require ETP	11264	No. of industries having functional ETP	11257	No. of industries complying	11216	No. of industries non-complying	41	Show cause notice issued	21	Closure directions issued	20	No of Industries against which action is under process/any other (prescribed)	0	No. of industries operating without ETP	7	Show cause notice issued	7	Closure Direction issued	7	All ETPs to achieve the standards prescribed by the Board.	41 IETPs	Further action will be initiated on receipt of the reply for Show cause notice from the IETPs units.
No. of industries which require ETP	11264																						
No. of industries having functional ETP	11257																						
No. of industries complying	11216																						
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Show cause notice issued	7																						
Closure Direction issued	7																						

<u>Compliance status of CETPs: (June -2020)</u>		All the CETPs to achieve the standards prescribed by the Board.	9 CETPs	Further action will be initiated on receipt of the reply for Show cause notice from the CETPs.
No. of CETPs	36			
No. of CETPs complying	27			
No. of CETPs non-complying	9			
Show cause notice issued	7			
Closure directions issued	1			
No of CETPs against which action is under process/any other (prescribed)	1			

Thematic Area: 11 Ground water extraction/contamination and recharge

Thematic Area :3(XI)	Ground water extraction/contamination and recharge
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Current Status	Desirable Level	Gap	Proposal for attending gap
<p>Groundwater Extraction</p> <p>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</p>	<p>To contain the GW exploitation and replenish Groundwater Level in Over exploited and Critical Areas with Artificial Recharge of Groundwater.</p>		<p>A comprehensive Groundwater Regulation Act to regulate and manage the abstraction of Groundwater is currently under the active consideration of the Government.</p>

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:

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

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

<p>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 analysed in our Geochemical Laboratories for various physico chemical parameters . From the analytical data for the year 2018, it is inferred that districts, such as, Dharmapuri, Dindigul, Madurai, Ramanathapuram, Namakkal, Villupuram and Viruthunagar are found to have excess nitrarte ion concentration. Similarly Districts like Dharmapuri, Erode, Karur, Salem Krishnagiri, Madurai, Namakkal, Trichy, Thiruvannamalai, Tirunelveli, Tiruppur 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.</p> <p>Groundwater Recharge</p> <p>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.</p> <p>Master Plan for Artificial Recharge Structures (MPARS) (153 Strucures). NABARD schemes (11 Check Dams).</p>	<p>WQ paremeters limits for potable purpose</p> <p>Nitrate: <50mg/l</p> <p>Fluoride: <1.5mg/l</p> <p>TDS: <2000mg/l</p>	<p>Water quality monitoring is a continuous process.</p> <p>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.</p> <p>Also few Artificial Recharge Structures are now proposed & and some are under execution.</p> <p>Under TNIAMP- II (15 crore –</p>
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<p>WB Aided Irrigated Agriculture Modernisation and Water-Bodies Restoration and Management Project, (IAMWARM) (56 Recharge Wells).</p> <p>TN IAM (Irrigated Agriculture Modernisation) Project (TNIAMP- I) (45 Recharge wells).</p>		<p>37 Recharge Wells) (under execution).</p> <p>CM Announcement Schemes (62 crore – 1 Check Dam) 125 Recharge Wells and 760 Recharge Shafts) (under execution).</p> <p>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).</p>
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Thematic Area: 12. Air Pollution including Noise Pollution

Thematic Area :3(X)	Air Pollution including Noise Pollution
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Current Status	Desirable Level	Gap	Proposal for attending gap
<p>(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.</p> <p>(2). The procurement of Noise monitoring instruments and its usage by the police department to address noise related complaints (To be informed to the Police Department)</p>	<p>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.</p>	<p>Hot spots of noise pollution has to be identified based on the noise monitoring survey</p>	<p>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.</p> <p>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</p>

			<p>noise monitoring equipments. After ascertaining the requirement from field units, a proposal was sent to the Government from the police department for necessary administrative and financial sanction for the procurement of noise monitoring devices. For the installation of Noise limiters in the Noise making instruments/equipments necessary proposal sent to the Govt for the issue of notification at the earliest.</p>
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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:-** In this connection, the seizure of number of vehicle for illegal transport of sand, penalty collected for the period from 2013-14 to 2018-19 has already been furnished in the previous quarterly report. The number vehicles seized for illegal transport of sand and penalty amount collected from the offenders for the period from 2019-20 and 2020-21 (upto July 2020) are furnished below:-

Year	Number of vehicle seized for illegal transport of sand	Penalty collected (in Rs.)
2019-20	7,528	2,24,27,275
2020-21 (Upto July 2020)	2,853	48,82,825

c) Prevention of Illegal Mining:-

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

- ii) Drone Technology is proposed to monitor illicit quarrying other than sand. Drone Technology will be pressed into service in association with Madras Institute of Technology (MIT) for monitoring illegal quarrying of minerals other than Sand.
- iii) **Mining Surveillance System:-** The Mining Surveillance System is being used for monitoring activities within 500 mts. of mining leases granted for major mineral and if any unlawful activities are noticed in the area within a radial distance of 500 mts. from the lease granted area it will be recorded in the form of “triggers” and the same will be forwarded to the Department of Geology and Mining of the State concern for physical verification and necessary action.

II. Public Works Department

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

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

REFORMS IN OPERATION OF SAND QUARRYING

- ❖ A paradigm shift in the mode of sand quarrying operations happened during April-May 2017, when several revolutionary and reformatory measures were infused into this sector complying with the “Sustainable Sand Mining Management Guidelines,2016”.

- ❖ A specialized mobile and web application, 'TN Sand' came into existence where the public and lorry owners made an online booking for their load of sand from 01.07.2017. From 18.07.2017 online payment facilities are made available. This mode of sale accounted for each unit of sand which ensures controlled mining without exceeding the approved quantity.
- ❖ The introduction of online sales accounted for each unit of sand and thus the quantity to be mined from each quarry was monitored online.
- ❖ In order to weed out the vehicles with fake permits and registration numbers, a State wide **Sand Transport Vehicle Registration Drive** was conducted in six phases wherein the Insurance, Permit and FC of the sand transport vehicles were checked by the officials from RTO and counter checked with the VAHAAN web site of the Transport Department.
- ❖ Based on the order of booking, schedule is prepared and communicated to the concerned field officers for loading the sand to the registered vehicle. The schedule contains the Lorry Chasis Number, Registration Number and Engine Number by which the field officers are able to check and seize the vehicle/lorries containing fictitious number plates. Such seized vehicles are blacklisted from TNsand and their registration are cancelled preventing them from further loading of sand from the Government Depots.
- ❖ The four boundaries of the quarries are now being demarcated with stone pillars at 50m intervals using GPS and Total Stations giving no room for any doubt in the calculation of the depth and area of quarry.
- ❖ The depot system of sand sale is now being implemented which prevents the movement of private vehicles inside the river bed and to safeguard the eco system of river. The waiting time outside the sand depots have been done away with, and all scheduled lorries pick up sand on the date specified. SMS/email is sent to the customer 30 hours before the scheduled time of pick-up to prevent unnecessary waiting outside the sand depots.
- ❖ The quarries and depots are monitored through the CCTVs installed at these places by the Control Room established at Chennai in the Project Directorate. A robust Customer Care system is also in operation in the Control Room to redress the grievances of the public.
- ❖ Sand will be loaded in the quarries in the PWD tendered GPS fitted vehicles and online transmit permit will be issued to the transporting vehicles to transport sand from the quarry to depots. The movement of the PWD tendered vehicles will be monitored using GPS equipment fitted on to the vehicle.

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

Thematic Area: 14. Rejuvenation of Water bodies

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

1. Preamble

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

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

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

1.1 Overview on Water Resources in Tamilnadu

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

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

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

1.2 Rain Water Harvesting scheme

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

To begin with, the implementation of the scheme was initiated as per G.O.138, 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 emphasizes the need of restoration of water bodies in view of the depletion of ground water sources in all over India and directed all the State and UT to submit Action

Plan on Restoration of Water Bodies (vide NGT Order dated 10.05.2019 in M.A.No. 26/2019 in OA.No. 325 of 2015) to CPCB within the period of three month. In compliance to the NGT order the Central Pollution Control Board published the indicative Guidelines for Restoration of Water Bodies in June 2019.

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

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

As a progressive State, The Government of Tamilnadu takes effort to rejuvenate the water bodies periodically, as well as amend the required acts in time to Time. Total available 900 048 Numbers of water bodies are being maintained by the Public works department(PWD), Rural Development(RD) , Hindu Religious and Charitable Endowment department (HR & CE), Municipal Administration department (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 water bodies under rejuvenation	Total Number water bodies to be taken for rejuvenation
		status as on 21.01.2020	Present status upto 18.07.2020	Status as on 18.07.2020	

Greater Chennai Corporation	210	66	105	78	27
Commissioner of Municipal Administration	585	214	237	44	304
Directorate of Town Panchayats	2186	836	1268	49	869
Rural Development and Panchayat raj Department	70367	21032	27358	2694	40315
Public Works Department	14341	3281	5340	1095	7806
Hindu Religious and Charitable Endowment Department	2359	2148 (857+1291 good condition)	2194 (903+1291 good condition)	4	161
Total	90048	27577	36502	3964	49482

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

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 are being carried out 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 on 30.07.2019 for fund tie up for restoration of the balance 27 water bodies through CSR fund.

So far totally 4061 families have been identified as encroachers in the ponds/lakes. Action is being taken for resettlement and rehabilitation of these families Enumeration and biometric survey of these families is in progress. With this all 210 ponds will get restored maximum over a period of 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 molluscs, crabs, dragonflies, butterflies, fishes, amphibians, 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 June 2020 is detailed below:

Public Works Department (PWD)

The Chief Engineer, PWD presented the progress of work on the various sub-projects:

- In Reach -I, from Chetpet Bridge to Padikuppam Causeway (Ch.9677 m - 15940 m), desilting work and baby canal work has been fully completed for the entire stretch of 6263 m.
- In Reach - II, from Padikuppam Causeway to Vanagaram bridge (Ch.15940 m – 22337 m), desilting has been completed for 5650 m out of 6397 m and baby canal has been completed for 5234 m out of 6397 m. The desilting and formation of baby canal in the remaining stretches has been dropped due to water logging and lower bed level.
- In Reach-III, the stretch from Vanagaram Bridge to Paruthipattu (Ch.22337m - 27336 m), out of a total length of 4999 m, desilting has been completed for 4000 m and execution of baby canal for 3205 m has been completed. The desilting and formation of baby canal in the remaining stretches has been dropped due to water logging and lower bed level.
- Under this project, within the CRZ stretch i.e., from Cooum river mouth to Napier bridge (ch.0 m to 700 m), for the continuous opening of river mouth and desilting of the river, the NIOT has submitted the final report and recommended for capital dredging and curved

training wall at an estimated cost of Rs.70 crs. The Proposal has been submitted to Government for seeking Administrative Sanction and the approval is awaited.

- With regard to the improvements in the CRZ stretch i.e. between Napier Bridge and Chetpet Railway Bridge (Ch.700m to 9677m), the desilting work has been fully completed.
- In the Northern arm (Ch.0 m to 2040 m), desilting has been completed for 1200 m out of 2040 m. Desilting for the remaining length will be carried out after the relocation of Sathiyavani Muthu Nagar slum habitation for a length of 840 m.

Greater Chennai Corporation (GCC):

The Commissioner, GCC presented the progress of various sub-projects entrusted with GCC as follows:

- Trash boom systems have been deployed across the river at 8 locations viz., near C-in-C bridge, Periyar bridge, Choolaimedu, Metha Nagar, near Central Buckingham Canal, behind Madras Medical College, Quaid-e-Millath bridge and near Napier Bridge and a total quantity of 39,786 MT of floating waste has thus far been removed from these booms.
- The removal of accumulated solid waste from the banks of the Cooum River has been fully completed.
- Under this project, fencing work has been fully completed for a length of 10.44 km and work is under progress in remaining stretches, out of a total length of 23.92 km. Fencing has been taken up in the stretches where work front is available and work could not be commenced in the stretches which are under encroachment and pendency of court cases.
- Regarding 9 parks & walkways envisaged under this project, the work has been transferred to CRRT for riverine plantation in the entire stretch of the river. Tender has been floated and it is under evaluation.

- A total of 14257 Project Affected Families (PAFs) had been identified along the Cooum River under this project. Thus far, 11856 PAFs have been resettled at 4 TNSCB Scheme Areas, viz., Gudappakkam, Navalur, AIR Land & Perumbakkam.

Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB):

The Managing Director, CMWSSB presented the progress of works entrusted with CMWSSB as follows:

Interceptor and Diversion Pipelines:

- Package V (Anna Nagar) – 100% works have been completed and the system has been commissioned.
- Package X (Anna Nagar) – 100% works have been completed and the system has been commissioned.
- Package II (Chetpet) – 100% of works have been completed. Electrical & Mechanical works are under progress and the scheduled date of completion is 31.08.2020.
- Package III (Nungambakkam) – 98% of works have been completed. Orders are placed for the procurement of EMI items. Remaining works are under progress. Probable date of completion is 15.08.2020.
- Package IV (Metha Nagar) – Due to slow progress the contract was terminated and retender was invited. Work order was issued on 26.12.2019. Suction well, second lift concreting works have been completed. 4% of works have been completed so far. Scheduled date of completion is 25.12.2020.
- Package VI (Langs Garden Road) - 32% of work completed. Work is under progress. Probable date of completion is 31.12.2020.
- Package VII (South Cooum River Road) – 32% of work has been completed so far. Suction well & Collection well are completed up to parapet. Laying of Pipeline & manhole construction commenced and work in progress. Out of 36 Maintenance holes, 19 nos of maintenance holes have been erected. Scheduled date of completion is 30.12.2020.
- Package VIII (Aminjikai) – 100% of work has been completed fully.

- Package IX (NSK Nagar) – work will be commenced after the removal of encroachments.
- Package I (Chintadripet) - Work order issued on 26.12.2019. 4% of work has been completed and casting of maintenance holes are under progress. Scheduled date of completion is on 25.12.2020.

Modular Sewage Treatment Plants (STPs):

- Regarding Modular STP (1.0 MLD) near College Road, Chetpet, Civil works is consisting of construction of collection tank, MBBR foundation and raft completed, MCC Building in progress. Mechanical and Electrical supplies in progress. Fabrication works for MBBR reaching completion. So far, 47% of work has been completed. The work will be completed by 26.09.2020.
- Regarding Modular STP (1.2 MLD) at Nungambakkam, Civil works consisting of construction of collection tank, MBBR foundation and raft completed. MCC Building to be commenced. Mechanical and Electrical supplies is in progress. MBBR Skid fabrication steel supplied fabrication to be commenced. So far, 34% of work has been completed. The work will be completed by 31.12.2020.
- For Modular STP (0.6 MLD) at Maduravoyal, site clearance and soil investigation works have been completed. Designing for complete fabrication of the plant including collection tank for FSTP is in progress. So far, 4% of work has been completed and will be completed by 18.12.2020.
- For the 10 MLD STP, the design and detailed engineering of process approval completed. Access obtained through GCC for dumping yard and physical work commenced on 27.12.2019. Piling work in progress. Secondary clarifier location shifted due to fouling of existing old pipeline. Pile work recommenced on 24.02.2020, Pile Load test is in progress. Thus far 10% of work has been completed and the scheduled date of completion is 31.05.2021.

Under Ground Sewerage System (UGSS):

- For UGSS Nerkundram, Pipe laying and construction of Sewage Pumping Station works are in Progress. Thus far, 17% of work has been completed and the remaining work is under progress. The work is proposed to be completed by 23.12.2021.

Tamil Nadu Slum Clearance Board (TNSCB)

TNSCB officials presented the following details under ICRERP:

- A total of 14257 Project Affected Families (PAFs) identified within the Cooum River boundary and 458 commercial establishments under Auto Nagar Scheme. Thus far, 11,856 tenements have been allotted by TNSCB. To resettle the remaining 2401 PAFs, 1899 tenements are ready for allotment and balance tenements are being constructed.

Commissionerate of Municipal Administration (CMA)

The Commissioner of Municipal Administration presented the following with regard to work progress:

- Accumulated solid waste along the river banks within Thiruverkadu Municipality limits has been fully removed.
- In phase I, fencing has been completed for a length of 1.55 km and fencing could not be taken up for a length of 370 m as the boundary falls within the river course and for 430 m as the existing private wall is in good condition. For 100 m, the work is under progress and expected to be completed by 31.8.2020.
- In phase II, fencing has been completed for a length of 1.74 km and fencing could not be taken up for a length of 719 m as the boundary falls within the river course.
- In phase III, fencing has been completed for a length of 1.401 km and fencing could not be taken up for a length of 1500 m as the bund could not be formed due to water logging and for 1260 m due to pending court cases (Perumal Koil Street and Shanmuga Nagar) where eviction has to be done. The work is expected to be fully completed by June, 2021.

Directorate of Rural Development & Panchayat Raj (DRD)

The Director, Rural Development presented the status of the entrusted works as follows:

- The accumulated solid waste has been fully removed from the banks of the Cooum river within the DRD areas viz., Senneerkuppam, Adayalampattu and Vanagaram Village Panchayats.

- Fencing works have been fully completed in 3 Village Panchayats viz., Vanagaram, Adayalampattu and Seneerkuppam.
- Vegetation planting works along the Cooum River banks within DRD limits have been transferred to CRRT.

Chennai Rivers Restoration Trust

Regular and periodic community awareness programmes are being conducted on the Integrated Cooum River Eco-Restoration Project for various stakeholders such as Residents Welfare Associations, National Green Corps of educational institutions, eco-clubs of schools and other community based organisations. Thus far, 14 major programmes conducted and 5877 stakeholders have been sensitized under this Community Education Programme.

ADYAR RIVER RESTORATION PROJECT FROM ORIGIN TO MOUTH

Public Works Department (PWD)

The Chief Engineer, PWD presented the progress of works entrusted with PWD as follows:

- For the package 1, i.e., from River mouth to Thiru. Vi. Ka Bridge, PWD has to get CRZ Clearance. The proposal has been presented to DCZMA on 3.2.2020 for getting CRZ Clearance. Replies to their observation and comments are under preparation.
- For package 2 i.e., from Thiru. Vi. Ka. bridge to Kotturpuram bridge, desilting works are under progress for a length of 1.53 km. The work is expected to be completed by December, 2020.
- For package 3, i.e., from Kotturpuram bridge to Saidapet Road Bridge, desilting works are under progress for a length of 1.73 km. The work is expected to be completed by December, 2020.
- For package 4, i.e., from Saidapet Road Bridge to Jafferkhanpet Road Bridge, regarding construction of flood protection wall for a length of 580 m and desilting work is in progress for a length of 1.87 km. The expected date of completion is December, 2020.
- For package 5, i.e., from Jafferkhanpet Road Bridge to Manapakkam Check dam, construction of flood protection wall for a length of

500 m has been fully completed and desilting for a length of 2500 m is under progress. The expected date of completion is December,2020.

- For package 6, i.e., from Thiruneermalai to Outer Ring Road, regarding construction of flood protection wall, work is in nearing completion for a length of 406 m. Desilting work for a length of 2550 m is under progress. The expected date of completion is December,2020.
- For package 7 (maintenance of river mouth for 4 consecutive years), CRZ Clearance has been denied by MOEF & CC. NIOT has been approached to take up the multi seasonal study.

Greater Chennai Corporation (GCC)

The Commissioner, GCC presented the progress of various subprojects as follows:

- Under this project, out of a total 24.67 km, fencing work has been fully completed for 4.04 km and for 6.9 km length works are in various stages of completion like piling, pile caps, grade beams, columns & RRM. The expected date of completion is December, 2020.
- Under Solid waste removal works, so far, 7913 MT out of a total 50664 MT of debris and 3504 MT out of a total 16826 MT of garbage have been cleared from the banks of the Adyar River.
- For the trash boom systems which are to be installed at 3 suitable locations across the Adyar River, tender has been finalised and LoA issued. Work has been commenced in Jafferkhanpet causeway.
- Regarding the work on beautification of bridges, work has been completed on all the three bridges being maintained by GCC (South Buckingham Canal Bridge near Kotturpuram Railway Station, Thiru. Vi. Ka Bridge and Alandur Bridge) and on one bridge being maintained by State Highways Department i.e., Maraimalai Adigalar Bridge (Saidapet Bridge). All the bridge beautification works have been fully completed.

- All walkways and maintenance walkways have been dropped and CRRT has been requested to take up the work space for riverine vegetation all along the river banks.
- For the Park near Kotturpuram, re-tender to be floated.
- For the construction of community toilet at 5 locations, re-tender has been called for. The expected date of completion is 9 months from the date of award of contract.
- CRRT will take up the development of green belt with native species supporting the biodiversity of Adyar riverine system.
- Plantation of Trees, shrubs, creepers, reeds, mangrove and grass all along the river will be executed by CRRT as they have expertise in riverine plantation.

Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB)

The detailed progress of work components entrusted with CMWSSB was presented as follows:

- Package I - Thus far 7% of work has been completed. The work is expected to be completed by 24.03.2021.
- Package II - Kotturpuram Slum Board tenements are to be demolished and reconstructed by TNSCB with new sewerage system and hence, the proposal is dropped.
- Package III – Thus far 14% of work has been completed. The work is expected to be completed by 24.03.2021.
- Package IV - Thus far 4% of work has been completed and the work is expected to be completed by 30.06.2021.
- Package V - 28% works completed thus far. Work to be completed before the scheduled date of completion of 24.03.2021.
- Package VI – Thus far 5% of work has been completed. The work is expected to be completed by 30.06.2021.
- For Packages VII & XI – Tender to be called for with revised scope of work.

Commissionerate of Municipal Administration (CMA)

The Commissioner of Municipal Administration presented the following with regard to work progress:

- Under solid waste removal, 522 MT of garbage has been removed and the work is fully completed.
- The construction of community toilet in Anakaputhur Municipality has been fully completed and opened to public.
- In Anakaputhur Municipality, fencing work is proposed for a total length of 3.24 km and has been fully completed for a length of 0.3 km and works are in progress at various stages of works in the remaining stretches.
- Regarding UGSS, DPR has been completed for the implementation of UGSS at a cost of Rs.132.35 crore in Pammal Municipality and Rs.78.80 crore in Anakaputhur Municipality. The proposal is under scrutiny.
- The Vettiver grass plantation with CMA limits will be taken up under the scope of CRRT.

Directorate of Town Panchayats (DTP)

The Director, Town Panchayats presented the following with regard to work progress:

- In Kundrathur Town Panchayat, fencing has been completed fully for a length of 1.20 km. For a length of 1390 m, tender has to be floated.
- In Thiruneermalai Town Panchayat, out of a total length of 5464 m, fencing work for a length of 1843 m was taken up by Village Panchayat and hence in the remaining length of 3621 m Thiruneermalai Town Panchayat has undertaken the fencing works. In this available stretch, fencing works are in various stage of completion for a length of 2237 m.
- In Perungalathur Town Panchayat, out of a total length of 9316 m, fencing work for a length of 1808 m was taken up by Village Panchayat and hence in the remaining length of 7508 m Perungalathur Town Panchayat has undertaken the fencing works. In this available stretch, fencing works are in various stage of completion for a length of 5630 m.

- For solid waste removal, 2700 cu.m of legacy waste has been removed out of 8600 cu.m through bio-mining. The work is expected to be completed by June, 2020.
- The vegetation planting works with DTP limits will be taken up under the scope of CRRT.

Directorate of Rural Development & Panchayat Raj (DRD)

The Director, Rural Development presented the status of the entrusted works as follows:

- Fencing work is proposed for a total length of 35.17 km within DRD limits, of which works are in various stages for a length of 26.01 km. The entire work is expected to be completed by December, 2020.
- Under solid waste removal, 8275 MT of accumulated solid waste has been fully removed and the work is fully completed.
- The vegetation planting works with DRD limits will be taken up under the scope of CRRT.

Tamil Nadu Slum Clearance Board (TNSCB)

Tamil Nadu Slum Clearance Board officials presented the following:

- Out of a total 9539 Project Affected Families (PAFs) identified on the banks of the Adyar River. Thus far, 4398 PAFs have been resettled and remaining 5141 PAFs have to be resettled.
- In order to resettle the remaining 5141 PAFs, construction of tenements is in various stages of progress across various schemes viz., Perumbakkam, Kotturpuram, Thailavaram, Moongil Eri, Subbupillai Thottam & Appavoo Nagar, Visalakshi Ammal Thottam & Pallakkumaniyam.

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 suttur) urban local bodies at the cost of Rs.38 crore and in Erode Corporation water bodies rejuvenation 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 and due to COVID Lockdown.

3.4 Directorate of Town Panchayats

There are 528 Town Panchayats being administered with 4305 water bodies in 36 districts. Out of which 2366 number of water bodies are belongs to Town Panchayats. In respect of 2366 water bodies, 1268 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 49 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 21,929 numbers of Minor irrigation tank and 68,092 numbers of Ponds & Ooranies across 37 districts. Of the 90,021 numbers of water bodies, 1200 water bodies have been restored at an estimated cost of Rs. 300 crore under Tamil Nadu Village Habitations Improvement (THAI)-II Scheme in the year 2016-17 and only partial restoration has been done using unskilled manual labour for the 50,796 MI Tanks, Ponds and Ooranies at a total expenditure of Rs.6339.49 crore was paid as wages to the MGNREGS workers in the past 5 years.

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

Under above Kudimaramathu Scheme, so far 27,358 water bodies consisting of 4,797 Minor Irrigation tanks and 22,561 Ponds and Ooranies has been rejuvenated. The remaining 2,694 works are under progress and 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.

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 54 water 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

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 CPCB on 17.09.2019 and the progress report also submitted to TNPCB on monthly basis.

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 from 31.07.2020 may be extended for another 6 months due to Lockdown of the State which is severally affected by COVID-19
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 from 31.12.2020 may be extended for another 6 months due to Lockdown of the State which is severally affected by COVID-19

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 36502 water bodies have been restored and 3964 are in progress. For the remaining water bodies Data collection and DPR preparation will be completed before 01.07.2021 and all the water bodies will be restored before 30.06.2022.

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

Thematic Area :3(X)	Coastal Pollution
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Current Status	Desirable Level	Gap	Proposal for attending gap
(1) As per the directions of the Hon'ble National Green Tribunal (NGT) in O.A.No.829/2019, 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 prepared and furnish reports to the Chief Secretary. The Chief Secretary may also include the subject in their	Letters has to be 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 into 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.

<p>monitoring and in the reports furnished in O.A.No 606 of 2018.</p> <p>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 of order.</p>	<p>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 Tamil Nadu and has to be compiled.</p>	<p>Nil</p>	<p>All the details were 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.</p>
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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 Village Panchayats

In Tamil Nadu, 93 model Village Panchayats 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.

(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 Sustainability. A Handbook on Sanitation has been prepared and used as Resource 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 Composting Centre (MCC):

Government Orders have been issued vide G.O. Ms. No. 15, RD & PR Department, dated: 7.1.2020, 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 315 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.
- Furthermore discharge Points of the Common Drains are identified and are addressed through community Soak Pits and other Grey water treatment methods. Grey Water Management facilities will be fully functional by the end of July,2020.

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 Addl. Chief Environmental Engineer	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 Addl. Chief Environmental Engineer	TNPCB
05.	Compliance to E-Waste Rules	Dr.S.Selvan Addl. Chief Environmental Engineer	TNPCB
06.	351 Polluted river stretches in the country	Dr.S.Selvan Addl. Chief Environmental Engineer	PWD/TWAD/ CMA/MAWS
07.	122 Non-attainment cities	Dr.S.Selvan Addl. Chief Environmental Engineer	TNPCB
08.	100 Industrial Clusters	Dr.S.Selvan Addl. Chief Environmental Engineer	TNPCB
09.	Status of STPs and re-use of treated water	Thiru. S. Thirumavalavan Superintending Engineer and Chief Engineer (STP), CMWSSB	CMWSSB/CMA
10.	Status of CETPs/ETPs including performance	Dr.S.Selvan Addl. Chief Environmental Engineer	TNPCB
11.	Ground water extraction/contamination and re-charge	Thiru.S.Prabakaran, Chief Engineer (State Ground and	PWD

		Surface Water Resources Data Centre)	
12	Air Pollution including Noise Pollution	Dr.S.Selvan Addl. Chief Environmental Engineer	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 Addl. Chief Environmental Engineer	TNPCB

**Chief Secretary to Government
Government of Tamil Nadu**

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Sd/**
(C.Senthilkumar)
Under Secretary to Government,
Municipal Administration and
Water Supply Department,**