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

Letter No. 18583/MA.IV/2019 Dated : 29.10.2019

From
Chief Secretary to Government
Government of Tamil Nadu

To
The Registrar,
National Green Tribunal,
Faridkot House, Copernicus Marg,
New Delhi- 110001. (w.e)

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

Sir,

Sub : National Green Tribunal - Solid Waste Management Rules, 2016 – Orders of National Green Tribunal in O.A.No.606 of 2017 dated: 12.09.2019 –quarterly report for the month of October'2019 and report on the thematic areas - Submitted - reg

Ref : Orders of the NGT dated: 20.8.2018, 16.1.201, 23.04.2019 and 12.09.2019 in OA.No.606 of 2018.

I am to invite attention to the reference cited, the quarterly to be filed by the Chief Secretary to Government on behalf of the State of Tamil Nadu as per the orders of the Hon'ble National Green Tribunal dated: 16.01.2019, including the report on the 14 thematic areas as per the NGT order dated: 12.09.2019 is enclosed herewith for filing before the Hon'ble National Green Tribunal.

Yours faithfully,

For Chief Secretary to Government.

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

IN

ORIGINAL APPLICATION NO. 606 / 2018

&

CONNECTED MATTERS

Submitted by

Chief Secretary, State of Tamil Nadu

25th October 2019

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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	43.45%

(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, Submitted to Hon'ble National Green Tribunal.

Compliance status of thematic areas as listed in the Hon'ble NGT order dated 12.09.2019 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. Copies of minutes of few similar meetings are also enclosed. The Chief Secretary to the Government of Tamil Nadu has also conducted a meeting through video conference on 15.10.2019 to review the Collectors with respect to Compliance of Solid waste management Rules 2016.	-	-	Complied

SWM Rules 15(a), (e), (ze), (f), (zf), (y), (z) & 16	Notification of Solid Waste Management Policy and Strategy Building Bye law enforcement Frame Bye Laws for Rules, user fee for waste generators, Levy of fines etc. Authorization of Pollution Control Board Duties of State Pollution Control Board or Committee		
Current Compliance Status	Desirable Level	Gap	Proposal for attending gap
<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

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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. 	Achieved	Nil	Complied

<ul style="list-style-type: none"> • Citizens are encouraged to hand over domestic hazardous waste such as Paint drums, Thermometers, expired medicines, Tube lights separately on a weekly basis. The waste is transported to the Domestic hazardous waste deposition centre/MRFs and periodically disposed to the facilitator authorized by TNPCB. • Safety equipments and uniform provided to sanitary workers. • Workers are encouraged to use protection equipments during their routine collection works and processing activities 			
<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>		

Current Status	Desirable Level	Gap	Proposal for attending gap
✓ Door to Door collection - 96 %	100 %	4 %	Through IEC activities, Door to Door collection & source segregation will be achieved by 31.12.2019 and 31.03.2020 respectively.
✓ Source Segregation - 83 %	100 %	17 %	

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<p>Processing facilities for wet waste</p> <ul style="list-style-type: none"> ✓ Total wet waste generation is 6851 TPD (51%) ✓ Waste to Compost Processing facilities (Micro Compost Centres) ✓ 991 MCC sanctioned to process 4864 TPD of wet waste in 15 Corporations and 121 Municipalities and 46 Town panchayats. So far, 682 MCCs with handling capacity of 2584 TPD have been established. In GCC, 658 Mulch Pits, 211 Sintex Tank, 24 Earthen Pit and 3961 units of Well ring with handling capacity of 439 TPD are functioning to process overall capacity of 3023 TPD (w1) of wet waste in 15 Corporation, 121 Municipalities and 46 Town Panchayat. ✓ 876 OCCs are functioning in Corporations & Municipalities with a handling capacity of 416 TPD (w2) as waste to compost processing facilities. <p>104 Biomethanation plants are established to process 254 TPD of Wet Waste (w3.) 908 Windrows and 314 Vermi Composting plants are functioning with capacity of 1171TPD (w4)</p>	<p>100 %</p>	<p>29 %</p>	<p>The construction activities of processing facilities are being reviewed and a target date of 31.03.2020 has been fixed for its completion.</p>
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<p>Processing percentage is $\{[w1 + w2 + w3 + w4] / (WW)\} \times 100 = 71\%$</p> <p>✓ From June 2016 to September 2019, 33,362 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.</p>			
<p>✓ 21,660 Tonnes of non-saleable, non-recyclable wastes disposed up to 18.10.19</p> <p>✓ 4,820 Tonnes of Non-saleable plastic waste are baled and kept in Resource Recovery Centres.</p> <p>✓ 3,16,684 MT of recyclable waste were sold and Rs. 62.88 Crore distributed to sanitary workers for the period from August 2017 to 30.09.19</p> <p>✓ 115 ULBs having less than 1 lakh population have established the Resource recovery facilities near by the MCCs. 28 ULBs having more than 1 lakh population have been sanctioned with 351 RRFs, of which 299 are completed and put in use.</p> <p>✓ 21,660 Tonnes Non-recyclable wastes generated are sent to cement plants/ sugar mills/ power plants for usage as fuel.</p>	<p>100% Processing</p>	<p>85 %</p>	<p>✓ Pyrolysis plants are proposed for safe processing and disposal of plastic wastes</p> <p>✓ Incineration Plants are proposed to be established in wherever Feasible Corporations to process Non recyclable combustible waste.</p>

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✓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.			
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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. So present 60 % 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>✓ Conversion of Plastic Waste as Tiles and Bricks using Extrusion with Hydraulics techniques from non-usable, non-recyclable, non-biodegradable, non-combustible and non-reactive inert waste are proposed.</p> <p>✓ Incineration Plants are proposed to be established in Corporations wherever feasible to process Non recyclable combustible waste.</p> <p>✓ 3 Bio CNG plants of processing capacity 300 MT/day are proposed in the Greater Chennai Corporation.</p>

SWM Rules 15 (zi), (zk)	Removal of Legacy waste Bio Mining, Bio Remediation or Bio capping of legacy waste in dumpsite
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Current Status	Desirable Level	Gap	Proposal for attending gap
<p>✓ Reclamation of dump yard filled with legacy waste through bio mining process is proposed. The total legacy waste in all the 664 ULBs is 120 lakh cu.m.</p> <p>✓ Bio remediation of old and abandoned dump sites have been taken up in 6 Corporations, 89 Municipalities and 24 Town Panchayats to remove the 74.86 Lakhs Cu.m of Legacy waste through bio mining process at a total estimated cost of Rs. 469.80 Crores. After completion of the biomining works, about 765 acres of land valuable to Rs.500 Crore will be reclaimed.</p> <p>✓ Bio Mining works has been completed in Kumbakonam, Pammal, Sembakkam, & Poonammaalle Municipalities. Similarlily in Perunthurai, Madhukur and Marakanam Town Panchayats also cleared 3,47,068 Cu.m of legacy waste so far and 25 acres of land has been reclaimed. Works in 112 ULBs are in various stages.</p> <p>✓ Centre for Environmental Studies, Guindy Campus, Anna University, Chennai has been engaged as Third Party Inspection Agency for all 119 ULBs for technical guidance in Bio-mining works</p>	100%	95%	<p>✓ 63 ULBs having <40,000 cu.m of legacy waste will be completed before December 2019.</p> <p>✓ Bio mining works in remaining ULBs will be completed before 31.12.2021.</p> <p>✓ Regarding the remaining 99 ULBs, the estimated</p>

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✓ There is no legacy waste in 446 ULBs			quantity of 46 lakhs cu.m of legacy waste is proposed to be removed in phased manner and to completed before 31.12.2021 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.
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SWM Rules 15 (x)	Budgetary Provision
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Compliance status as on 24.07.2019	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
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Compliance status as on 24.07.2019	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
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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 December 2019. ✓ 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 32TPD and 14 Onsite Composting Centre (OCCs) with a handling capacity of 5 TPD and windrows composting to handle 10 TPD have been established. ✓ 11 TPs in Nilgiris District are handling their waste (44.33TPD) through windrow 	100%	87%	<p>Alternative methods to process wet waste in accelerated manner is being analysed to suit the hilly climate conditions.</p> <p>Meanwhile, currently hot air is passed into the wet waste through blower to minimize the moisture content and to accelerate the culture to convert as Bio manure.</p>

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<p>composting.</p> <p>✓ In Kodaikanal Municipality, 4 MCCs with a handling capacity of 8 TPD and 4 Onsite Composting Centre (OCCs) with a handling capacity of 2 TPD have been established.</p> <p>✓ 12 TPS of Dindigul, Theni and Tirunelveli districts process their waste (46.155 TPD) through Windrow composting.</p> <p>✓ Recyclables are sold to recyclers and Non-recyclables are sent to Ultra tech & ACC cements.</p>			
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<p>SWM Rules 16(1)(a),(5),(6)</p>	<p>Enforcement of Rules in the State through local bodies</p> <p>Directions to local bodies for safe handling and disposal of domestic hazardous wastes</p> <p>Regulate inter-State movement of waste</p>
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Current Status	Desirable Level	Gap	Proposal for attending gap
<p>• DO letters dated 25.04.2016 & 14.06.2016 and letters dated 04.10.2016, 26.11.2016 & 19.01.2017 addressed to Municipal Administration and Water Supply Department, Commissionerate of Municipal Administration, Directorate of Town Panchayat, RDPR Dept to comply with the provisions of the Solid Waste Management Rules, 2016</p>	<p>As indicated in SWM Rule 2016</p>	<p>Nil</p>	<p>Complied</p>

<ul style="list-style-type: none"> • 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 			
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SWM Rules	Monitor environmental standards
16(b),(4), 19(4)	(Air Quality Monitoring, Water Quality Monitoring (ground water) as per Schedule II of SWM Rules, 2016)

Current Status	Desirable Level	Gap	Proposal for attending gap
<ul style="list-style-type: none"> • TNPCB conducted Ground Water Quality monitoring at the vicinity of solid waste dumpsites pertaining to 12 Corporations and at 97 Municipalities and 17 Town Panchayats. • TNPCB conducted Ambient Air Quality monitoring at the vicinity of solid waste dumpsites pertaining to 8 Corporations namely, Chennai, Coimbatore, Madurai, Trichy, Salem, Erode, Thoothukudi, Vellore, 3 Municipalities (Palani, Ooty, Kovilpatti) and 2 Town Panchayats. 	<p>To carry out Ground Water Quality Monitoring (ground water), Air Quality Monitoring for all Corporations, Municipalities and Town</p>	<p>Ground water quality monitoring to be carried out for remaining Corporations (3 nos.), Municipalities (22 nos.) and Town Panchayats (68 nos.)</p> <p>Ambient Air Quality</p>	<p>TNPCB will carry out Air Quality Monitoring and Water Quality Monitoring (ground water) of dumpsites for</p> <ul style="list-style-type: none"> • All Corporations & 25% Municipalities – 31st Dec 2019 • Municipalities (50%) and Town Panchayats (10%) - 31st Mar 2020 • Municipalities (75%) and Town Panchayats (25%) – 30th June 2020 • Municipalities (100%) and Town

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<ul style="list-style-type: none"> Continuous Ambient Air Quality Monitoring stations installed at the vicinity of Kodungaiyur and Perungudi dumpsites. 	Panchayats which have obtained Authorisation	monitoring to be carried out for remaining Corporations (7 nos.) and Municipalities (116 nos.) and Town Panchayats (83 nos.)	Panchayats (50%) – 30 th Sep 2020 <ul style="list-style-type: none"> Town Panchayats (100%) - 31st Dec 2020
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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.	To submit Annual Report to the CPCB before 31 st July every year	Nil	Submitted
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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.	100%	Being monitored continuously	Being monitored continuously

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 Management have been	100 % Implementation of Bar coding by all the HCFs in co-ordination with the CBMWTFs.	The closed CBMWTFs of (1). M/s. Society for Biomedical Waste Management, Nilgiris (2). M/s. Neat & Clean	Before permitting the 3 CBMWTFs to recommence by TNPCB, it will be ensured that the system of Bar coding will

<p>issued with closure direction and disconnection of power supply for non compliance of BMWM rules. Bar coding system is under implementation by the remaining 8 operating CBMWTFs.</p>		<p>Service Squad, Ramnad and (3).M/s. Kovai Bio Medical Waste Management,Coimbatore have to implement Bar coding system.</p>	<p>be followed by the CBMWTFs .</p>
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<p>BWM Rule 4 (p)</p>	<p>Duties of Occupier of HCF Annual report on its web-site</p>
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Current Status	Desirable Level	Gap	Proposal for attending gap
<p>All the HCFs have been instructed to upload the Annual report in their website.</p>	<p>For the HCFs, time has been extended until 15th March, 2020 to upload the Annual report in Form – IV in their websites as per the Biomedical Waste Management Rules, 2016 as amended in 2018.</p>	<p>To ensure that all the HCFs upload the Annual report in their website by 15th March 2020 as per BMWM Rules, 2016 as amended in 2018.</p>	<p>Conditions have been imposed in the Consent orders issued to the HCFs to upload the Annual report in their website by 15th March 2020.</p>

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BWM	Duties of Occupier of HCF
Rule 4 (t)	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.	--	NIL	--

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

Current Status	Desirable Level	Gap	Proposal for attending gap
Bar coding system and GPS Tracking system : There are totally 11 CBMWTFs of which the following 3 namely (1). M/s. Society for Biomedical Waste Management, Nilgiris (2). M/s. Neat & Clean Service	100 % Implementation of Bar coding by all the HCFs in co-ordination with the CBMWTFs.	The closed CBMWTFs of (1). M/s. Society for Biomedical Waste Management, Nilgiris	Before permitting the 3 CBMWTFs to recommence by TNPCB, it will be

<p>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> <p>Bar coding system and GPS tracking systems are under implementation by the remaining 8 operating CBMWTFs.</p>		<p>(2). M/s. Neat & Clean Service Squad, Ramnad and (3).M/s. Kovai Bio Medical Waste Management,Coimbatore have to implement Bar coding system and GPS tracking systems.</p>	<p>ensured that the system of Bar coding and GPS tracking systems will be followed by the CBMWTFs .</p>
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<p>BWM Rule 5 (l)</p>	<p>Duties of Occupier of CBMWTFs Display details of authorisation, treatment, annual report etc., on its web-site</p>
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Current Status	Desirable Level	Gap	Proposal for attending gap
<p>All the CBMWTFs have uploaded 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</p>	<p>All the CBMWTFs have to comply with the said Rule.</p>	<p>M/s. Neat & Clean Service Squad, Ramnad CBMWTF has to comply with the Rule.</p>	<p>The CBMWTF will be instructed to comply with the Rule on reopening of the facility by TNPCB.</p>

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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.			
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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
<p>Upgrade existing incinerators to achieve the standards for retention time in secondary chamber by 27th March, 2018.</p> <p>Two CBMWTFs have upgraded their incinerator of same existing capacity to achieve the standards for retention time in secondary chamber.</p>	<p>The other Common Biomedical Waste Treatment and Disposal Facilities have been instructed to upgrade their incineration systems to comply with the new emission norms.</p>	<p>The remaining CBMWTFs are yet to comply with the same, as MoEF, GOI has given the following clarification letter dated 27.10.2017,</p> <p>1. In case CBMWTF desires to replace the existing incinerator and install new incinerator of same capacity, EC will be required, as there might be configuration</p>	<p>The CBMWTFs have been instructed to upgrade the incinerator to achieve the standards for retention time in secondary chamber.</p> <p>Further, TNPCB has addressed MoEF & CC, New Delhi vide letter dated 14.11.2018 to consider the issue of the following amendments in</p>

		<p>changes that might impact the performance efficiency of the incinerator.</p> <p>2. If the CBMWTF desires to enhance the existing capacity, while upgrading the facility to comply with the stringent emission norms, EC is applicable.</p>	<p>Schedule 7 (da) of MoEF Notification dated 17.04.2015:</p> <p>1. Common Biomedical Waste Treatment and Disposal facilities in existence before EIA Notification, 2006 as amended, shall not obtain EC for modernization of its equipments including incinerator if there is no change in the capacity of the equipments which is being modernized.</p> <p>2. For Expansion of existing facility and establishment of new facility, EC may be obtained under B2 category.</p> <p>On receipt of clarification from MoEF & CC necessary action will be initiated.</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
Out of 11 CBMWTFs, 8 facilities have installed online monitoring system for the parameters PM, NOx, 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.	Maintain the online connectivity of the said parameters and achieve the standards at all times.	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 which are under closure have been instructed to comply with the Rule.	The 3 CBMWTFs under closure will be ensured to comply with the Rule before reopening of the facility by TNPCB.

BMW	Rule	Duties of State Pollution Control Board
(Schedule III) 6 (i)	Inventorization Issue of Authorisation	

Current Status	Desirable Level	Gap	Proposal for attending gap
Tamil Nadu Pollution Control Board has inventorised 10294 Health Care Facilities (Private and Government hospitals) as on 30.09.2019 and issued with Authorisation under BMWM Rules, 2016 including one time Authorization for non-bedded HCFs like clinics, laboratories, research institutes, etc.,	All the HCFs have to be brought under the provisions of BMWM Rules, 2016.	Continuous process	All the HCFs who have applied have been issued with Authorisation under BMWM Rules, 2016.

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BMW	Rule	Duties of State Pollution Control Board
(Schedule III) 6 (ii)		Annual Report

Current Status	Desirable Level	Gap	Proposal for attending gap
As per Rule 13 (2), SPCB has to submit the Annual report to CPCB on or before the 31st July of every year. TNPCB has submitted Annual report to CPCB for the year 2018 vide TNPCB letter dated 17.04.2019.	Every occupier of HCF or operator of common bio-medical waste treatment facility shall submit an annual report to the prescribed authority in Form-IV, on or before the 30th June of every year.	NIL	Annual report for the year 2018 has already been submitted to CPCB for the year 2018 vide TNPCB letter dated 17.04.2019.

BMW	Rule	Duties of State Pollution Control Board
(Schedule III) 6 (v)		Action against health care facilities or common biomedical waste treatment facilities for violation Monitoring of compliance conditions of authorisation

Current Status	Desirable Level	Gap	Proposal for attending gap
<p>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, 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>M/s. Kovai Biowaste Management Ltd, Coimbatore was issued with closure direction and disconnection of power supply vide Proc. dated 11.04.2018 for non-compliance of consent order conditions.</p> <p>M/s. Society for Biomedical Waste Management, Nilgris was issued with closure direction and disconnection of power supply vide Proc. dated 07.09.2018 for violation of BMWM Rules, 2016.</p> <p>M/s. Neat & Clean Service Squad, Ramnad was issued with closure</p>	--	--	Being monitored

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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.

Further, 51 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 above said 51 HCFs, 25 HCFs have been issued with revocation of closure direction and restoration of power supply, as the HCFs have complied with the conditions stipulated in closure directions.

Directions were issued to 24 Nos. of HCFs including Government Hospitals for violation of consent order conditions and for operating without consent of the Board under the Water and the Air Acts. Further one HCF M/s. Sree Balaji Medical College Hospital, Chennai was levied with Environmental Compensation for non-compliance of Directions issued to the unit and the same has been remitted by the HCF.

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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 is under the process of carrying out gap analysis of Health care Facilities generating biomedical waste, as per the Biomedical Waste Management Rules, 2016. Issue of Work order to Centre for Environmental Studies, Anna University, Chennai is under progress.	To carryout gap analysis	To fill the gap between the generation and disposal of biomedical waste by inviting more number of CBMWTFs.	May, 2020

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BMW	Rule	Duties of State Pollution Control Board
(Schedule III) 6 (viii)		Third party audits of the common bio-medical waste treatment facilities

Current Status	Desirable Level	Gap	Proposal for attending gap
<p>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.</p> <p>Further one facility M/s. Teknotherm Industries, Coimbatore has conducted third party audit through Anna University, Chennai.</p>	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 by March 2020.

BMW	Rule	Duties of State Pollution Control Board
(Schedule III) 6 (x)		Advisory Committee

Current Status	Desirable Level	Gap	Proposal for attending gap
The Health, Family & Welfare (H1) Department vide G.O.(Ms). No. 277 dated 29.11.2016 had constituted the State Level Advisory Committee under the	—	Nil	Achieved

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<p>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 State Level Advisory Committee meetings were held on 25.09.2018 & 10.04.2019.</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 had issued orders to constitute the District Level Monitoring Committee under the chairmanship of respective District Collectors. In this regard, District Level Monitoring Committees had been formed in all 32 Districts and regular meetings are being held.</p>			
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<p>BMW (Schedule III) 6 (x)</p>	<p>Rule Duties of State Pollution Control Board List of Registered or Authorised (or give consent) Recyclers</p>
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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

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BMW Rule	Duties of State Pollution Control Board
Others	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, the District Collectors/ District Magistrates have been addressed through DO letter dated 26.07.2019 from the Principal Secretary, E & F Dept/ Chairman (FAC), TNPCB to prepare District Environmental Plan by constituting District Committee with members to be chaired and monitored twice every month and to host the same in websites for a period of one year beginning from 01.08.2019. Accordingly, District Planning Committees has been formed in 31 Districts and functioning. District Environmental Plans are also being uploaded.	—	Being monitored	Continuous process

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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Compliance status as on 24.07.2019	Current Status	Desirable Level	Gap	Proposal for attending gap
✓ Action Plan prepared in the ULBs and separate store sites for C&D waste earmarked. Suitable Collection Mechanism will be formulated and will be followed effectively before the month of September 2019.	<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 ✓ The C& D Waste can be used for laying base course for formation of roads and filling up of low lying areas. 	100%	100%	Proper mechanism for inflow and outflow of C&D waste is being planned by 31.12.2020 and will be fully established.

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Thematic Area: 4. Compliance to Hazardous Waste Rules

HWOM Rules 6 (1-8)	Grant of authorization for managing hazardous and other wastes.		
Current Status	Desirable Level	Gap	Proposal for attending gap
TNPCCB has identified 3455 units generating hazardous wastes as on 31.8.2019 & Authorization issued to 3455 units. Remaining applications for the renew of Authorization is under process	100	Nil	Continuous process

HWOM Rules 7	<p>7. Power to suspend or cancel an authorization.-</p> <p>(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.</p>
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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.	-	-	Continuous process

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.	100	Nil	Continuous process

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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 /Spent Oil- 24 No, 2. Waste oil – 12 Nos, 3. Lead Scrap – 14 Nos, 4. Solvent Recovery – 8 Nos, 5. Zinc & Zinc Ash – 8 Nos 6. Copper Scrap – 2 Nos <p>1. The Board has authorized 11 cement plants for co processing of 5.7 Lakhs tonnes per annum of utilizable wastes in cement kilns. During the year 2018-19 , about 2.69 lakhs Tonnes of ETP sludge have been disposed to various Cement industries for co-processing through the following Authorized pre processing facilities & from other industries</p> <ol style="list-style-type: none"> 1.M/s GEPIL- Vellore – Authorized capacity – 2500TPA 2.M/s Sandhiya Enviro Tech System – Villupuram- 5023 T/A 	<p>100</p>	<p>Nil</p>	<p>Continuous process</p>	

Recyclable/Utilizable Waste Disposal for the period 2018-19

Recyclable/utilizable Hazardous Waste generation (T/A)	Recyclable/utilizable Hazardous Waste Disposal (T/A)
408464 Tons	408464 Tons
Disposal of Hazardous waste Through Recyclers - 24Nos (Total capacity - 205369 T/A)	Disposal of Hazardous waste Through Utilizes, pre processer &Co procesing to cement plant (11 nos)- 576872T/A
171006 Tons	237457 Tons
Total – 408464 Tons	

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HWOM	Treatment, storage and disposal facility for Hazardous and Other Wastes.
Rules 16	(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 Taminadu.</p> <p>1. M/s Tamilnadu Waste management Limited, Export Promotion Industrial Park (EPIP), SIPCOT Gummidipoondi , Tiruvallur District (Capacity Land fillable – 100000 T/a & Inceneration – 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 filable Hazardous Waste Disposal for the period 2018-19</p> <table border="1"> <tr> <td>land fillable HW generated (T)</td> <td>Hazardous Waste Disposal (T)</td> </tr> <tr> <td>207382 Tons</td> <td>207382 Tons</td> </tr> <tr> <td></td> <td></td> </tr> </table>	land fillable HW generated (T)	Hazardous Waste Disposal (T)	207382 Tons	207382 Tons			100%	Nil	-
land fillable HW generated (T)	Hazardous Waste Disposal (T)								
207382 Tons	207382 Tons								

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<p>HWOM</p> <p>Rules 17, 18,19</p>	<p>17. Packaging and Labelling.-</p> <p>18. Transportation of hazardous and other wastes</p> <p>19. Manifest system (Movement Document) for hazardous and other waste to be used within the country only.-</p>
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Current Status	Desirable Level	Gap	Proposal for attending gap
<p>1. Packaging , labeling & manifeast system is followed by Hazardous waste generators/TSDf/Recyclers/ pre procrssor</p> <p>2. TSDf vechicles are fitted with GPS arrangement</p> <p>3. TNPCB issued Authorization to 11 transportes to transport Hazardous Waste to the Authorized dispsaal facility for scientific land fill/recycling/ co processing facilities.</p>	<p>100%</p>	<p>Nil</p>	<p>Continuous process</p>

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HWOM Rules 20	Records and returns			
Current Status		Desirable Level	Gap	Proposal for attending gap
TNPCCB has identified 3455 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.		100	Nil	Continuous process
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 being followed as per CPCB guidelines.		-	-	Continues process

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"> The Board vide B.P. No. 28, dated 6.8.2019 has approved to award work order to the National Productivity Council to conduct E-waste inventorization in the entire state of Tamil Nadu at cost of Rs.47.08 lakhs. The Project duration is 6 months. Inventorization will be completed by May 2020. As per the Annual Report 2018-19, E-waste collected and channelized to the authorized dismantlers / recycler is 	<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 Manufacturers, Dismantlers, Refurbishers, Recyclers shall get 	<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. However, there is a gap between the current generation of e-waste and the waste channelized 	<ul style="list-style-type: none"> Inventorization of E-waste generation in the entire State will be completed by the end of May 2020. Action will be taken against the informal dismantlers / recyclers. This will be completed by June 2020, (i.e) After completing the inventorization. Direction will be issued to all the bulk consumers in the State to send the e-waste to authorized facilities. This will be completed by 15th November, 2019. TNPCB verify the EPR Authorized producers, collection centres, dismantlers, recyclers on quarterly basis and submit report

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<p>Chennai : 31949.89 Tonnes Coimbatore : 117.746 Tonnes Trichy : 214.97 Tonnes Total : 32282.60 Tonnes</p> <ul style="list-style-type: none"> • TNPCB has authorized 22 Dismantlers, 1 Refurbisher and 1 Recycler. • 68 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. 20 persons have attended the programme. • TNPCB issued a Public Notice in the News Papers Tamil & 	<p>authorization from TNPCB.</p> <ul style="list-style-type: none"> • All the bulk consumers shall channelize the e-waste to the authorized dismantler or recycler. • All the local bodies shall segregate the e-waste mixed with solid waste and channelize to the authorized dismantler or recycler. 	<p>to the authorized dismantlers/recyclers.</p> <p>In order to have complete inventory of e-waste, TNPCB has approved to award work order to the National Productivity Council to carryout inventorization in the entire State.</p>	<p>to CPCB periodically. Last report was submitted in May 2019 & October 2019.</p> <ul style="list-style-type: none"> • As a part of IEC plan, TNPCB is in the process of conducting awareness programme to the stake holders at the regional level. It is a continuous process. • TNPCB in association with District Administration and NGOs will create awareness to the school students through National Green Crops, Eco-Clubs and Scouts. It is a continuous process. • TNPCB will also create awareness through media like Radio, Short film etc., This will be completed by December 2019. • Implementation of District Environmental Plan will be reviewed by the District Committee headed by the District Collector and the compliance report will be uploaded in the District Administration web site. It is a continuous process.
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<p>English on 21.08.2019 appealing all the stake holders to comply with E-Waste Management Rules and the orders issued by the Hon'ble NGT. Press release was also issued in all the Districts in this regard.</p> <ul style="list-style-type: none">• TNPCB vide letter dated 22.08.2019 has issued guidelines to all the District Collectors to prepare and include E-Waste Management subject in the District Environmental Plan and upload the same in District Administration web site and also to send fortnight status report to the Government.• In order to identify producers who have not obtained EPR			
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<p>Authorization, TNPCB vide letter dated 04.09.2019 has addressed GST Council to furnish the list of Producers. This is a continuous process.</p> <ul style="list-style-type: none">• TNPCB has conducted a brainstorm meeting to all the EPR Authorized Producers, Dismantlers, and Recyclers on 6.9.2019. 72 persons have attended.• On 20.9.2019, a brainstorm meeting was conducted at TNPCB Head Office to the District Co-ordinators of National Green Crops, Eco Clubs and Scouts. 105 persons have attended. They will conduct awareness programme to the students in the schools.• TNPCB vide proceeding dated			
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<p>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.</p> <ul style="list-style-type: none">• TNPCB vide proceeding dated 26.09.2019 has nominated nodal officers to monitor the compliance of the above said Directions Member Secretary, TNPCB - State Level<ul style="list-style-type: none">➤ District Environmental Engineer- Dist. Level➤ Commissioner/Executive Officer:➤ Corporation/Municipality/ Town Panchayat• TNPCB vide letter dated			
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<p>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.</p>			
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Thematic Area: 6. 351 Polluted River Stretches in the Country

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
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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> <p>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 to July-2019 - BOD - 9.6 to 24.0, DO – 1.0 to 9.5, FC – 17000 to 220000.</p> <p>2. River Thirumanimutharu–Salem to Papparapatti Stretch-(15Kms) – Priority-I (BOD > 30 mg/l), CPCB data as on</p>	<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>	<p>Desired Levels: BOD < 3.0mg/l, DO > 5.0mg/l, Faecal Coliform < 500MPN/100ml.</p>	<p>➤ 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.</p> <p>➤ Government of Tamil Nadu propose project in the name of “Nadhanthai Vaazhi Cauvery” in Tamil Nadu is Massive</p>

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<p>Sep-2018 BOD – 190.0 mg/l, Current status as on Jan to July-2019 - BOD – 10 to 75, DO – Nil, FC – 70000 to 3300000.</p> <p>3. 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 to July-2019 - BOD – 0.1 to 6.2, DO – 2.5 to 9.0, FC – 17 to 790.</p> <p>4. 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 to July-2019 - BOD – 0.3 to 3.6, DO – 4.7 to 8.6, FC – 21 to 330.</p> <p>5. 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 to July-2019 - BOD – 1.3 to 7.3, DO – 1.2 to 8.5, FC – 4 to 50.</p> <p>6. 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 to</p>			<p>Rejuvenation programme for Cauvery and its Tributaries with the prime objective to conserve, rejuvenate and augment the water resources in Cauvery basin and to effectively curb sewerage pollutant. Government of Tamil Nadu has entrusted work of preparation of Detailed Project Report (DPR) within six months to WAPCOS Limited. The time line for execution of this project will be specified only after DPR is prepared.</p>
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<p>July-2019 - BOD – 3.6 to 342, DO – 1.04 to 5.7, FC – 3500 to 1700000.</p> <ul style="list-style-type: none">➤ Based on the Hon'ble NGT (PB) directions, River Rejuvenation Committee (RRC) was constituted in Tamil Nadu vide vide G.O. (D) No. 372 dated: 26.12.2018 comprising 1. Industries Commissioner, 2. Commissioner, Municipal Administration, 3. The Director of Environment, 4. The Member Secretary, Tamil Nadu Pollution Control Board.➤ Action plans for six polluted river stretches submitted to CPCB on 28.01.2019.➤ CPCB has instructed to re-submit the revised action plans by including gap analysis during the evaluation of action plans for polluted river stretches under priority-I & II on 11.02.2019.➤ The revised action plans for the four polluted river stretches in priority-I (River Sarabanga, Vasista, Thirumanimutharu & Cauvery) were submitted to CPCB on 18.04.2019 after the approval of the RRC and the same was recommended/approved with conditions by the CPCB Task Team in the 5th review meeting held on 24.04.2019.			
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| <ul style="list-style-type: none">➤ The revised action plans for the remaining two polluted river stretches in priority-IV & V (River Bhavani & Thamirabarani) were submitted to CPCB on 29.05.2019 well before the Hon'ble NGT (PB) due date (30.06.2019). The same is under consideration of CPCB.➤ 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.➤ The District committee also formed to monitor the action | | | |
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<p>plans proposed by the concerned line departments and submit their progress report to the Government and TNPCB on quarterly basis and the minutes of the meeting shall be uploaded in the website periodically.</p> <ul style="list-style-type: none">➤ Frequent RRC meeting were conducted with the concerned line departments.➤ Tamil Nadu Pollution Control Board requested the Government of Tamilnadu through Department of Environment & Forest for taking decision on the remittance of performance guarantee of Rs. 10 crores for the six number of polluted river stretches and also compensation of Rs. 4 crores to be paid for submission of incomplete action plans under priority-I (River Sarabanga, Vasista, Thirumanimutharu & Cauvery) to CPCB as ordered by the Hon'ble NGT (PB), New Delhi vide TNPCB office Letter No. TNPCB/DD (L)/F.No.6849/2016 dated 15.06.2019.			
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Thematic Area: 7. 122 Non-attainment Cities

Thematic Area :3(VIII)		Status of Non –attainment cities (Thoothukudi)	
Current Status (PM₁₀ -133 mg/m³)	Desirable level (<PM₁₀ -60 mg/m³)	Gap	Proposal for attending gap
As per the directions of the Hon'ble National Green Tribunal Action plan for non attainment city-Thoothukudi approved by CPCB on 16.5.2019. The short term action points up to August-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 is under preparation.	Reduction of PM ₁₀ in Thoothukudi city.	The current status of PM ₁₀ monthly average values are considerably lower when compared to the previous period but still above the monthly and annual average values.	The Government of India under National Clean Air programme has sanctioned a sum of Rs 4.16 Crores exclusively for the purchase of Air pollution control equipments such as Mechanical sweepers, Water sprinklers system, control of Awareness programmes and purchase of Continuous Ambient Air Quality Monitoring Station (CAAQM). With the purchase and supply of the above equipments the air pollution levels of PM ₁₀ are expected to come down. The works for procurement and implementation of Air Quality Monitoring Stations, Pollution Control equipments etc., are expected to be completed by April-2022.

Thematic Area: 8. 100 Industrial Clusters

Thematic Area :3(VIII)	Status of Comprehensive Environmental Pollution Index
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Current Status			Desirable Level	Gap			Proposal for attending gap
Present CEPI Index			The CEPI Index shall be reduced below 60 so as to allow further industrial activities or expansion be allowed with regard to 'red' and 'orange' category units till the said areas are brought within the prescribed parameters or till carrying capacity of area is assessed and new units or expansion is found viable having regard	Name of Polluted Industrial Area (PIAs) in Tamilnadu	CEPI Score	Desirable Limits	To calculate the CEPI score in the above said 8 polluted industrial areas, studies are to be carried out by analysing the Air, Surface water & ground water during pre monsoon and post monsoon period for the period 2019-20.
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					
Towards the compliance of the Hon'ble NGT order, TNPCB has not issued any CTE/CTO for new Red & Orange category and expansion of existing Red & Orange category							TNPCB has entrusted the above said work to Department of Applied Science and Technology, AC Tech,

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industries in the above said Polluted industrial Areas.	to the carrying capacity of the area and environmental norms		Anna University, Guindy Campus, Chennai. Based on the study results, the CEPI index will be calculated for 8 Polluted Industrial Areas of Manali, Cuddalore, Coimbatore, Vellore, Mettur, Tiruppur, Erode & Thoothukudi and action plan to reduce the CEPI index will be prepared before July 2020.
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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 513 MLD is being discharged into the Chennai city water ways as per TNPCB norms. 	<p>100%</p>		<p>CMWSSB has set itself an target for complete recycle and reuse by 2025</p> <ul style="list-style-type: none"> • At Present - 6.5% • 2020 - 25% • 2025 - 80% • 2030 - 100%

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<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 TTRO Plant of each 45 MLD capacity, 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.✓ After careful consideration GoTN issued in principle approval (131 (MS)			
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<p>MAWS 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.</p> <ul style="list-style-type: none"> ✓ 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 also 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 primary investigation works are now taken up,</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. ✓ Layered Map of existing/proposed STPs, available government land, 			
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<p>locations of lakes/ponds, human habitats, existing distribution lines, storage reservoirs etc.</p> <ul style="list-style-type: none"> ✓ Hydro-geological condition of existing lake area. Necessary to estimates the recharge potential of the area ✓ Identifying other storage locations – abandoned quarries, underground storage, aquifers and low-lying area 			
<ul style="list-style-type: none"> ➤ Out of the 135 ULBs, Under Ground Sewerage Schemes have been taken up for implementation in 58 ULBs and completed in 35ULBs and others in various stage of implementation. ➤ In UGSS completed towns, 41 STPs has been completed and producing 817.61 mld of treated water. ➤ 32 STPs work are under progress in 19 ULBs and will produce 592.74 MLD of treated water. <p>MOU signed for the sale of Secondary Treated Effluent Water (STEW) in the following ULBs:</p> <ul style="list-style-type: none"> ➤ Nagapattinam - 2.00MLD - M/s KVK Power for cooling purpose. ➤ Dindugul - 5.00MLD - to maintain the TDS level of Tanners as well for Agro-forestry. ➤ Tirunelveli - 24.00MLD - Nanguneri SEZ for Industries. ➤ Perambalur - Negotiation is under progress with MRF Industries for the 	<p>100%</p>		<p>CMA has set itself an ambitious target for complete recycle and reuse by 2025.</p> <ul style="list-style-type: none"> • At Present – 2.5% • 2020 - 25% • 2025 - 80% • 2030 – 100% <p>State Government is coming out with a policy on reuse of treated wastewater, wherein wastewater grids are proposed to be established</p>

<p style="text-align: center;">sale of STEW of 3.00 MLD.</p> <ul style="list-style-type: none">➤ Ramanathapuram - 3.00 MLD - NTC Infra.➤ Pollachi – 11.50 MLD - Agricultural use.		to promote treated water for industrial, agriculture or non drinking purpose domestic use. DPR 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	Desirable Level	Gap	Proposal for attending gap
<u>Compliance status of ETPs:</u>			
No. of industries which require ETP	10658	All ETPs under functional are achieving the standards.	Nil
No. of industries having functional ETP	10649		
No. of industries complying	10612		
No. of industries non-complying	37		
Show cause notice issued	1		
Closure directions issued	36		
No of Industries against which action is under process/any other (prescribed)	Nil		
No. of industries operating without ETP	9		
Show cause notice issued	Nil		
Closure Direction issued	9		

<u>Compliance status of CETPs:</u>		All CETPs under functional are achieving the standards.	Nil	-
No. of CETPs	36			
No. of CETPs complying	36			
No. of CETPs non-complying	Nil			
Show cause notice issued	Nil			
Closure directions issued	Nil			

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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, semi-consolidated and consolidated 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. It is programmed to be published by 31.3.2020.</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

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Ground Water Contamination

The State Ground and Surface Water Resources Data Centre (SG & SWRDC), WRD is collecting ground water samples from 2258 locations (Two samples per Firka) biannually i.e during pre (July) and Post (January) monsoon period of every year and a total of 4516 samples are being collected and 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 nitrate 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.

As per the Central Ground Water Board water Quality map and reports, Tamil Nadu State does not have arsenic presence in the ground water. Further in the NRDWP Programme, the water quality samples were tested in the district water

WQ parameters limits for potable purpose

Nitrate: <50mg/l

Fluoride: <1.5mg/l

TDS: <2000mg/l

Water quality monitoring is a continuous process.

Every year “Water Quality Year Book” stating the year wise water quality are being prepared by SG & SWRDC, WRD and the same is communicated to all the district Collectors and line Departments Like TWAD Board, TNPCB, CGWB, for further action.

testing laboratories, TWAD Board during the year 2012 to 2018. From the results of water samples non presence of arsenic in all the tested water samples was ensured.

Groundwater Recharge

Artificial Recharge Measures like Check dams across rivers, installing recharge shafts in tanks and the river beds were carried out under the various projects under WRD like Master Plan for Artificial Recharge Structures (MPARS) (153 Structures), NABARD schemes (11 Check Dams), WB Aided Irrigated Agriculture Modernisation and Water-Bodies Restoration and Management Project, (IAMWARM) (56 Recharge Wells) TN IAM (Irrigated Agriculture Modernisation) Project (TNIAMP- I) (45 Recharge wells).

Few Artificial Recharge Structures are now proposed under TNIAMP- II(15 crore - 37 Recharge Wells-), CM Announcement Schemes (62 crore - 1 Check Dam, 125 Recharge Wells and 760 Recharge Shafts) , Comprehensive Flood Mitigation Project in coastal Districts of TamilNadu(139 Recharge Wells) mainly focusing on Over exploited /Critical Areas and major aquifers.

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Thematic Area: 12. Air Pollution including Noise Pollution

Thematic Area :3(X)	Air Pollution including Noise Pollution		
Current Status	Desirable Level	Gap	Proposal for attending gap
<p>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 and will be submitted by November 30th 2019. The Director general of Police was addressed for the procurement of Noise monitoring instruments and impart training for the operation of such instruments to the police personnel to address the noise related complaints.</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.</p> <p>The Noise mapping for 3 cities to be completed by 30.11.2019</p>	<p>Hot spots of noise pollution has to be identified based on the noise monitoring survey</p>	<p>Work is in progress. It will be achieved.</p>

Thematic Area: 13. Illegal Sand Mining

I. Department of Geology and Mining

- Sand mining is completely banned in major river beds namely Thamirabarani in Tirunelveli and Thoothukudi Districts and Palaru and Cheyyar in Kancheepuram Districts in view of protecting the ecology and environment of the river system.
- Sand mining operations are entrusted to Public Works Department vide G.O. (Ms).No.95 industries (MMC.1) dated 01.10.2003.
- In order to prevent illegal quarrying and transportation of minerals the Government have ordered to constitute Taluk Level and District Level Task Force Committees vide G.O.Ms. No.135, Industries (MM1) Department, dated 13.01.2009. The District Level Task Force Committee shall review the progress of Taluk Level Task Force Committee and send periodical report to High Level Committee through the Director of Geology and Mining. The sand vehicles seized and penalty collected details for the past five years are as tabulated below:

Sl.No.	Year	Number of sand vehicle seized	Penalty levied and collected (Rs. in crore)
1	2013-2014	6728	16.32
2	2014-2015	6623	17.45
3	2015-2016	5146	15.60
4	2016-2017	4409	11.98
5	2017-2018	12659	28.53
	Total	35565	89.88

The details of number of FIR filed and persons detained under Goondas Act for the past five years are as follows:

Sl.No.	Year	Number of FIR filed	Number of person detained under Goondas Act
1	2013-2014	4268	14
2	2014-2015	4798	7
3	2015-2016	3949	6

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Sl.No.	Year	Number of FIR filed	Number of person detained under Goondas Act
4	2016-2017	3142	11
5	2017-2018	8365	38
	Total	24,522	76

- Authorities not below the rank of Police Inspectors are vested with power for seizure of vehicles indulged in illicit quarrying and transportation of minerals vide G.O.Ms.No.114, Industries (MMC1) Department, dated 18.09.2006.
- The Government constituted a High Level Monitoring Committee to monitor the quarrying and sale of sand by Public Works Department under the Chairmanship of Secretary to Government, Industries Department vide G.O.140 Industries (MMC1) Department dated 11.07.2008.
- The Inter State transport of sand has been banned vide G.O.Ms.No.158, Industries (MMC1) Department, dated 25.08.2008 by the introduction of Rule 38-B in the Tamil Nadu Minor Mineral Concession Rules 1959.
- Powers have been delegated to Police Personnel not below the rank of Inspector of Police and District Forest Officers for filing Criminal cases against the offenders indulging in illicit quarrying and transportation of minerals under section 22 of the Mines and Minerals (Development and Regulation) Act 1957, vide G.O.Ms.No.12 Industries (MMC1) Department, dated 02.02.2009.
- In order to meet the growing imbalance between demand and supply in the state import of sand for construction purposes is permitted vide G.O (Ms) No.41, Industries (MMC.1) dated 10.04.2018 and such right shall vest only with the Public Works Department of the State Government.

Special Efforts – for Prevention of illegal Mining

a. Drone Technology UAV (Unmanned Aerial Vehicle)

Even before the issue of final orders, based on the interim orders Department of Geology and Mining has under taken a study of drone technology in the field in a abandoned quarry in Kancheepuram District and found it very accurate.

Moreover, the Hon'ble High Court of Madras in the order dated: 04.03.2019 in W.P.No.2984/2017 directed the respondents to implement the drone technology alone in order to determine the exact quantum of minerals quarried from the lease hold sites by way of detection through satellites.

b. 24x7 watching of river beds :

The High Level Committee was already constituted to curb illicit mining of sand in river beds vide G.O.135, Industries (MMA.1) Department, dated: 13.09.2009. 24x7 watching of river beds are being carried out by strengthening the Taluk Level and District Level Task Force Committee by way of forming special squads with special armed police officials. The District Level Task Force committee are reviewing the progress of Taluk Level committees and send periodical report to High Level Committee through Director of Geology and Mining.

c. Mining Surveillance System (MSS):

The Mining Surveillance System has been developed by Ministry of Mines through Indian Bureau of Mines (Indian Bureau of Mines) in collaboration with Bhaskarcharya Institute of Space Applications and Geo-informatics (BISAF), Gandhinagar and Ministry of Electronics and Information Technology (MEITY) under digital India Programme with a vision to establish a responsive mineral administration by curbing illegal mining activity through automatic remote sensing detection technology. The system has been launched mainly for Major Mineral leases. In respect of MSS system for all minor minerals action would be taken soon after finalising of the authorisation of agencies for undertaking GPS surveying of all lease hold areas of minor minerals.

Now the Mining Surveillance System (MSS) is being used for monitoring 500 meter radius of the mining / quarrying leases granted for major and minor minerals to determine the extent of illegal mining. In respect of sand mining the Government suggested explore the possibilities of using Mining Surveillance System (MSS) for most vulnerable points and where sand deposit is available by uploading Geo-Coordinates through BISAG and immediate steps should be taken to bring all existing approved sand quarries in Surveillance System.

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Further, in Sl.No. 1 of the Annexure to the Government letter dated 15.05.2019, para 33 of the NGT order has been observed as follows:

“as reported in new paper articles, the granite industry in Tamilnadu has come to a standstill. It is alleged that few industries indulged in illegal mining. There are some 900 quarries in the State but none in operation. They are closed for want of Environment Clearance (EC) from the State Government. And this is because of ‘administrative delays’.”

In this connection, it is submitted that the observation of the NGT is not correct. In fact, because of orders of NGT, New Delhi some of the granite quarries have been stopped for want of Environment Clearance (EC). The actual number of granite quarries stopped is 223 only.

Further, in consequence to the Hon’ble Supreme Court Order in its order dated 2.08.2017, in W.P.No.114/2014, action has been initiated to collect the cost of the minerals removed without Environment Clearance from the lessees and issue no objection certificate for obtaining Environment Clearance.

The power to grant EC is vested with State Environment Impact Assessment Authority and CEC (Central Environment Committee) / EAC (Environment Appraisal Committee of GOI) of Ministry of Environment and Forests. State Environment Impact Assessment Authority is a State Body but it has to be notified by the Government of India for the State. Hence there is no administrative delay on the part of State Government”.

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. The waiting time outside the quarries 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 quarries.
- In order to weed out the vehicles with fake permits and registration numbers, a State wide **Sand Transport Vehicle Registration Drive** was conducted in five 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.

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- 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 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 issued orders 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.

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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.

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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 expected to be completed before February 2020. 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 and given in Annexure :

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 upto 06.08.2019	Present status upto 20.10.2019	Status as on 20.10.2019	
Greater Chennai Corporation	210	22	66	70	74
Commissioner of Municipal Administration	585	209	214	40	331
Directorate of Town Panchayats	2186	586	836	51	1299
Rural Development and Panchayat raj Department	70367	1200	16882	13118	40367
Public Works Department	14341	2713	3281	1220	9840
Hindu Religious and Charitable Endowment Department	2359	849	849	8	1502
Total	90048	5579	22128	14507	53413

The action taken by various Departments to restore, rejuvenate and maintain on sustainable manner are highlighted in the following manner:-

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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 66 water bodies have been completed at an amount of Rs.37.14 crore. The restoration work carried out, includes widening of the tank and deepening of the tank, bund formation, inlet and outlet arrangements, walkway.

The Restoration and Rejuvenation of 70 water bodies are being carried out under Chennai smart city 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. The storage capacity of the tank will be increased five times.

Further restoration of 47 water bodies are to be taken up under CMCDM fund at an estimate amount of Rs.109.88 Crore. 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 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 molluscans, crabs, dragonflies, butterflies, fishes, amphibian, reptiles, birds and mammals. This figure stood at 141 before the restoration activity.

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

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

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

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

INTEGRATED COOUM RIVER ECO-RESTORATION PROJECT

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

All the line departments have commenced the execution of the sub-projects entrusted with them, viz., Desilting and river widening by Public Works Department; Solid waste removal, fencing, boom deployment and developing parks by the Greater Chennai Corporation; Removal of solid waste and fencing along the banks by Commissionerate of Municipal Administration, Directorate of Town Panchayats and Directorate of Rural Development and Panchayat Raj in their respective areas; Laying of interceptor pipelines & installing modular sewage treatment plants by Chennai Metropolitan Water Supply and Sewerage Board; Resettlement & Rehabilitation of Project Affected Families (PAFs) by the Tamil Nadu Slum Clearance Board and are under various stages of progress and the status of the progress as on 28.09.2019 is detailed below:

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Public Works Department (PWD)

- Under this project, desilting of Cooum River has been completed thus far for a length of 25.3 km out of the total 29.5 km and the formation of Baby Canal has been completed for 14.5 km out of 17.66 km. Desilting and widening works are under progress in the remaining stretches.

Greater Chennai Corporation (GCC)

- Under this project, fencing work has been fully completed for a length of 9.01 km and work is under progress for another 1.25 km out of a total length of 23.92 km.
- Under solid waste removal component, so far, 79,430 MT out of a total 81,364 MT of debris and 19,824 out of a total 23,527 MT of garbage have been cleared from the banks of the Cooum River.
- Trash Boom Systems have been deployed across the river at 8 locations viz., near C-in-C bridge, Periyar bridge, Choolaimedu, Mehta Nagar, near Central Buckingham Canal, behind Madras Medical College, Quaid-e-Milleth bridge and near Napier Bridge and thus far, a total quantity of 33,060 MT of floating waste has been removed from these trash booms.
- Out of 9 parks & walkways proposed as part of the riverfront development work, 7 works within CRZ area will be executed after the completion of desilting by PWD. In the Nature Trail Park proposed from College Road Bridge to Munroe Bridge, piling, beam work, column plastering and board walk works have been completed for a length of 50 m as a precursor. Preliminary works are under progress in the remaining stretches. The proposed park at Golden George Nagar, Mogappair will be taken up after the disposal of the court case.

Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB)

- Out of 10 **Interception & Diversion (I&D)** works proposed, 1 package has been fully completed and is functioning; 1 package is nearing completion; 3 packages are under 50-95% completion stage; 3 packages are in the completion stage of 10-50%; for 1 package, the work will be commenced after the relocation of slums in the alignment and for the remaining one package, an alternate proposal has been devised and tender has been called for.
- Works have been commenced on 2 out of 3 Modular STPs, one 10 MLD STP and Nerkundram UGSS.

Tamil Nadu Slum Clearance Board (TNSCB)

- Out of a total identified 14257 Project Affected Families (PAFs) within the river boundary and 458 commercial establishments under Auto Nagar Scheme, 9453 PAFs have thus far been resettled. Commercial establishments encroached upon the Cooum River under Auto Nagar Scheme have been fully evicted.

Commissionerate of Municipal Administration (CMA)

- Within CMA limits, out of a total length of 10.78 km, thus far fencing work has been fully completed for a length of 3.3 km and work is under progress for the remaining length.
- A total quantity of 1648 MT of accumulated solid waste along the banks of the river has been fully removed within Thiruverkadu Municipality.

Directorate of Rural Development & Panchayat Raj (DRD)

- The accumulated solid waste for a quantity of 4582 cu.m 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 2 Village Panchayats viz., Vanagaram and Adayalampattu. In Seneerkuppam Village Panchayat fencing work has been completed for 700 m out of 1000 m. Chennai Rivers Restoration Trust
- CRRT is entrusted with the community education programmes, plantation of mangroves, mangrove associates and terrestrial plants along the river. The plantation work will be commenced after the completion of desilting and stabilization of bunds by PWD and in certain stretches, after laying of Interception & Diversion (I&D) works by CMWSSB.

ADYAR RIVER RESTORATION PROJECT FROM ORIGIN TO MOUTH

The Government have accorded Administrative Sanction of Rs.555.46 crore for the implementation of Adyar River Restoration from origin to the river mouth and works commenced in 2018. 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, developing parks, community toilets and beautification of bridges by the Greater Chennai Corporation; Removal of solid waste and fencing along the banks by Commissioneerate 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

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Clearance Board and are under various stages of progress and the status of the progress as on 28.09.2019 - is detailed below:

Public Works Department (PWD)

- Out of 7 packages of proposed works, PWD is in the process of preparing HTL/LTL map for CRZ application for 1 package, for 2 packages Expert Appraisal Committee (EAC) has recommended for CRZ clearance in the meeting held on 19.08.2019 and orders are awaited from MoEF & CC. Construction of flood protection and desilting work has been commenced in 3 packages. For 1 package, EAC has asked to obtain NIOT study and submit to MoEF & CC upon which clearance shall be considered.

Greater Chennai Corporation (GCC)

- Under this project, out of a total 24.67 km., fencing work is in progress for a length of 10.51 km and is in various stages of completion like pile, pile cap, grade beam, column & RRM.
- Locations have been identified for the removal of accumulated solid waste along the banks and work will be taken up after construction of fencing to avoid re-dumping.
- For the trash boom systems which are to be installed at 3 suitable locations across the Adyar River, tender has been finalized and LoA issued.
- Regarding the work on beautification of bridges being maintained by GCC, work has been completed on all three bridges (South Buckingham Canal Bridge near Kotturpuram Railway Station, Thiru. Vi. Ka Bridge and Alandur Bridge) and 50 % of work has been completed on one bridge being maintained by State Highways Department i.e. Maraimalai Adigalar Bridge, Saidapet.
- The proposed riverfront development work will be taken up after the completion of desilting by PWD and laying of I&D pipelines by CMWSSB.

Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB)

- Technical Sanction has been obtained for all 14 Packages. Work orders have been issued for Packages I, II, III IV, V, VI, VII and preliminary works commenced. Retender to be floated for Packages VIII to XI, as the tenders have been rejected by the Tender committee due to high tender excess.

- Packages XII, XIII & XIV have been cancelled and the proposals are to be dropped. Since, alternative proposals have been devised for linking these outfalls to the pumping station proposed under Nandambakkam UGSS and drains restoration project..

Commissionerate of Municipal Administration (CMA)

- In Pammal and Anakaputhur Municipality, fencing work is proposed for a total length of 3.325 km and work is in progress for a length of 1.70 km.
- Work is under progress for construction of community toilet in Anakaputhur Municipality.
- Under solid waste removal, thus far 287 MT out of 522 MT of garbage has been removed.

Directorate of Town Panchayats (DTP)

- In Thiruneermalai Town Panchayat, fencing work is in progress for a length of 3.3 km out of the total length of 5.46 km.
- Under fencing work proposed for a length of 9.31 km in Perungalathur Town Panchayat, work is in progress for 7.98 km length.
- In Kundrathur Town Panchayat, fencing work is proposed for 1.2 km. Thus far, fencing has been fully completed for a length of 1.14 km and work is in progress for the remaining length.
- For solid waste removal, thus far, 950 cu.m of legacy waste has been removed out of 8600 cu.m and work is in progress.

Directorate of Rural Development & Panchayat Raj (DRD)

- Under this project, fencing work is proposed for a total length of 35.17 km within DRD limits, of which work is in progress for a length of 16.57 km.
- Under solid waste removal, out of 8275 MT thus far 4000 MT of accumulated solid waste has been removed and the removal of the remaining 4275 MT is in process.

Tamil Nadu Slum Clearance Board (TNSCB)

- 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 will be resettled.

3.3 Municipal Administration Department

There are 14 Corporations (except Chennai Corporation) and 121 Municipalities being administered with 585 municipal owned water bodies across 32 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, 214 water bodies have been restored (209 water bodies upto 6th Aug 2019 and 5 water bodies completed in karaikudi viruthunagar ,Pattulottai and Tiruvaur in the month of August and september2019) 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 Corporation two ponds have been taken for restoration at an estimated cost of Rs. 10.25 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 sathur urban local bodies at the cost of Rs.38 crore and in Erode Corporation water bodies rejunevation taken under Kfw at an estimated cost of Rs.5.95cr. 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.

3.4 Directorate of Town Panchayats

There are 528 town panchayats being administered with 3881 water bodies across 31 districts. Of which 2186 numbers of water bodies are Town panchayats. In the 2186 water bodies, about 836 water bodies have been restored by the concerned urban local bodies at an estimated cost of Rs. 85.76 crore in the last five years. These water bodies are restored with basic 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.

3.5 Rural Development and Panchayat raj Department

The Rural Development department is having 21609 numbers of Minor irrigation tank and 48758 numbers of water bodies across 31 districts. Of the 70367 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 above 50,796 MI Tanks, Ponds and Ooranies and a total expenditure of Rs.6339.49 crore as mentioned above 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 25,000 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 16882 water bodies consisting of 2896 Minor Irrigation tanks and 13986 Ponds and Ooranies has been rejuvenated. The remaining 13118 works are under progress and the remaining water bodies will be restored in a phased manner in 3 years.

The Rural Development department has also initiated 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 for necessary eviction.

3.6 Public Works Department

The Public works department is having 14341 numbers of irrigation tanks across 31 districts. Out Of 14341 numbers of water bodies, 3181 water bodies have been restored at an estimated cost of Rs. 539.88 crore under various schemes such as Repair, Renovation and restoration (RRR), Tamil Nadu Irrigation Agriculture Modernization Project (TNIAMP) Phase I, Kudimaramath, De-silting of water bodies for city water supply, De-silting of reservoirs, De-silting by NGO, traditional water bodies and National Bank For Agriculture & Rural Development (NABARD) aided schemes and for 1220 tanks , restoration works are under progress. 21,231 numbers of encroachment evicted in water bodies so far.

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Further the Public works Department planned to restore/renovate 906 tanks at an estimated cost of Rs. 649.55 crore under TNIAMP (phase II) and 99 tanks at an estimated cost of Rs. 85.16 crore under RRR.

3.6.1 “Nadanthai vaazhi Cauvery”

The Honorable Chief Minister has announced scheme “Nadanthai Vaazhi Cauvery” on the floor of Legislative Assembly on 20.07.2019. This will be Massive Rejuvenation programme for River Cauvery and its Tributaries. This scheme is similar to Ganga rejuvenation Project. This scheme was announced to rejuvenate the Rivers Cauvery, Bhavani, Noyyal, Amaravathy, Sarabanga and Thirumanimuthar. This Project will focus to prevent the entry of sewage flow by providing Sewerage Treatment Plants, River-Front Development and also include River Surface Cleaning, Afforestation, Bio-Diversity Conservation, Environmental and Pollution Monitoring, Resettlement and Public Awareness. Necessary Detailed Project Report will be put up by March 2020.

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. At present 8 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, and the Director of Environment and Member Secretary, 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). The same is under consideration of CPCB, Delhi.

4. Time Frame

It is proposed to take up all the water bodies for rejuvenation on phased manner and to complete before 30.06.2022. Based on the above guidelines, the Government of Tamilnadu formulated an Action Plan for the Restoration of all Water Bodies and submitted the same on 06.08.2019, in connection to that a status report is herewith as detailed below:

Action Plan on water Bodies

Status report as on 20.10.2019

Activities in the Recognition (Phase I)	1.Collection of Historical, Geographical and geological data for all the Water Bodies 2.Collection of catchment and lead channel pollution data, sewage disposal contamination data, industrial effluent disposal data, solid waste, plastic waste, e-waste, hazardous waste and C & D waste disposal data for all the Water Bodies 3.Digital mapping of all collected information	Time frame : 01.08.2019 – 31.03.2020
Current status	Out of 90048 water bodies available in Tamilnadu , about 22128 water bodies have been rejuvenated from the year 2004 to till date and 14507 water bodies are under rejuvenation. Mean while as per the direction of MP 26 /2019 and OA 325 of NGT, action is being taken to revive the data of all the water bodies and to collect the actual data at field level in respect of disposal of liquid waste and solid waste in and	

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	around the water bodies and water course
Proposal for attending gap	To collect the relevant data to abate the water bodies from the liquid waste and solid waste, it is proposed to engage third parties / NGOs to speed the activity and to map the collected information.

Activities in the Gap Analysis (Phase II)	1.Declaring the Designated Best use of water bodies and ascertain the quality of water as per the standard	Time frame : 01.09.2019 – 30.09.2020
	2.Reconnaissance 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 and in-situ facility availability for minimizing the pollution level	01.04.2020 – 30.09.2020
Current status	Action is being taken to collect the samples from the water bodies already rejuvenated to declare its designated usage	
Proposal for attending gap	Action will be taken to collect the water samples to ascertain the quality standards as per the recommendation after the North East monsoon season.	

Activities in the Planning and DPR Preparation (PhaseIII)	1.Preparation of action plan for sewage management, industrial effluent management and solid waste management and other associated issues, de-weeding, de-silting, protection of drainage basin, channels, stabilization of earthen bunds and preparing cost estimation	Time frame : 01.10.2020 – 31.03.2021
	2.Removal of encroachments and blockades, deciding on flood control measures and preparing cost estimation Also a parallel activity from the beginning	01.04.2021 – 30.06.2021
Current status	Around 10500 encroachments removed at Coimbatore where the water body rejuvenation works taken under smart city scheme. Encroachment removal action will be continuously taken care	

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Proposal for attending gap	After completion of Reconnaissance Survey and Gap Analysis the DPR will be prepared
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Activities in the Implementation of Action Plan Phase (Phase IV)	1.Tendering and Implementation	01.07.2021 – 30.06.2022
Sustenance Phase	Good Governance, transparency and empowerment of stakeholders, deciding ownership of each water body, creating awareness and training programme for conservation, promoting public participation	

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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	D.Anbalagan, 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	D.Anbalagan 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	D.Anbalagan 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 Surface Water Resources Data Centre)	PWD
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	D.Anbalagan Superintending Engineer O/o the Commissioner of Municipal Administration, Chennai.	CMA/PWD/TWAD

Sd/- xxxxxx
Chief Secretary to Government
Government of Tamil Nadu

/True Copy/

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

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