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BEFORE THE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 606 OF 2018

**IN THE MATTER OF:**COMPLIANCE OF MUNICIPAL SOLID WASTE  
MANAGEMENT RULES, 2016**INDEX**

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Filed on.19.02.2020

Filed by

*Sneha*

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IN THE HON'BLE NATIONAL GREEN TRIBUNAL  
AT NEWDELHI

Original Application No.606 of 2018

BETWEEN:

.... PETITIONERS

*compliance of Municipal S.W.*

AND: *Management Rules, 2016*

CPCB & OTHERS

.... RESPONDENTS

**AFFIDAVIT FILED BY THE CHIEF SECRETARY TO**  
**GOVERNMENT OF KARNATAKA – RESPONDENT**

I, T M Vijay Bhaskar , S/o Late Sri. T.R. Mahadeva Naidu aged about 59 years, working as Chief Secretary, Government of Karnataka, do hereby solemnly affirm and state on oath as follows:-

*Bengaluru*

1. I submit that I have been working as Chief Secretary, GoK since July 2018 and in my official capacity and as verifiable from official records maintained with Government of Karnataka, I am familiar with the facts of the case and hence I am swearing to this Affidavit.
2. I respectfully submit that based on the directions of this Hon'ble Tribunal, I ensured coordination with various departments of Government of Karnataka and based on the information provided by such departments, I depose the present affidavit.
3. I respectfully submit that the directions of the Hon'ble Tribunal with respect to OA No. 606/2018 are being adopted in both Urban & Rural areas of the State.



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4. I respectfully submit the abstract of the implementation status of Solid Waste Management (SWM), Biomedical Waste Management (BMW) Rules 2016 in 279 Urban Local Bodies (6728 wards), 6021 Gram Panchayaths & 23,259 Health Care facilities along with implementation status of other issues mentioned in Hon'ble NGT order dated 24-4-2019, 12.09.2019, 07.01.2020 as under:

i. Para 22(a):

I.

A) Compliance to SWM Rules 2016 in urban areas (ULBs other than BBMP) is enclosed here with and marked as Annexure-R1A [Pgs. 389 to 396].

B) Compliance to SWM Rules 2016 in Bangalore City by Bruhat Bengaluru Mahanagar Palike is enclosed here with and marked as Annexure-R1B [Pgs. 397 to 404].

C) Compliance to SWM Rules 2016 in rural areas is enclosed here with and marked as Annexure-R1C [Pgs. 405 to 417].

II. Compliance to Construction & Demolition Waste Management Rules 2016 in urban areas is enclosed here with and marked as Annexure-R2 [Pgs. 418 to 419].



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III. Compliance to A) SWM Rules-2016 B) Bio-Medical Waste Management Rules 2016 C) C & D Waste Management Rules-2016 D) Hazardous Waste Management Rules 2016 E) E-Waste Management Rules 2016 F) 351 polluted river stretches G) 122 Non-Attainment Cities H) 100 Industrial Clusters I) Status STPs & Reuse of Treated Water J) Status of CETPs/ETPs Including Performance K) Air Pollution including noise pollution by Karnataka State Pollution Control Board is enclosed here with and marked as **Annexure-R3**[Pgs. 420 to 474].

IV. Compliance to Status of STPs and Re-Use of Treated Water by Bengaluru Water Supply & Sewerage Board(for Bangalore city) Karnataka Urban Water Supply & Drainage Board(for cities/towns other than Bangalore) is enclosed as **Annexure-R4**[Pgs. 475 to 479].

V. Compliance to Rejuvenation of Water Bodies by Urban Development Department is enclosed here with and marked as **Annexure-R5**[Pgs. 480 to     ].

VI. Compliance on Illegal Sand Mining by Department of Mining and Geology is enclosed here with and marked as **Annexure-R6**[Pgs. 481 to 482].

VII. Compliance to Ground Water Extraction/ Contamination and Re-Charge by Directorate of



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Ground Water is enclosed here with and marked as

**Annexure-R7**[Pgs. 483 to 484].

5. I respectfully submit that, several significant achievements/initiatives have been taken up by the State of Karnataka in the fields of Solid & Liquid Waste Management as detailed below;

**Urban Development Department:** Urban areas of Karnataka generate approximately 11,085 tonnes of Municipal Solid Waste (MSW)

- i. MSW collection has increased from **10,108 TPD to 10,198 TPD from July-2019 to Dec-2019.**
- ii. 100% Door to Door waste collection is taking place in **6,635 wards out of 6,728 wards (98.61%).**
- iii. 100% source segregation is taking place in **3,694 (earlier in 2729 wards) wards** out of 6728 wards(**54.90%**).
- iv. **Procurement of lands for establishing scientific processing and disposal** facility is completed in 215 ULBs & out of 62 ULBs (including newly upgraded ULBs and NACs), 56 ULBs have identified the lands and remaining ULBs are in the process of identifying land.
- v. 218 ULBs have prepared DPRs for collection, transportation, scientific processing & disposal which also takes care of processing of the Legacy waste of CMCs, TMCs and TPs.
- vi. About **4,655.27 tonnes** of MSW is **processed** daily yielding around **465 TPD** of manure.
- vii. **Rs 230.32 crs of SWM service charges is collected** in the State (2018-19 & 2019-20 FY).
- viii. **Random inspections by KSPCB Environmental officers have been carried out** to validate field level implementation of SWM Rules 2016.

Environmental Management & Policy Research Institute (EMPRI), Bengaluru has been entrusted with task to



evaluate the **effectiveness** of **plastic ban** and implementation of waste management in BBMP as well as in other City Corporations.

- x. **Study and preparation of legacy, recyclable and non-recyclable waste management plan** for the State has been taken up. A Technical Advisory Committee is being constituted for needful guidance required for the disposal of legacy waste in ULBs.
- xi. The State has banned all kinds of single use plastics vide GO dated: 11.03.2016. In order to curb the illegal manufacture, supply, sale & use of single use plastic and to prevent illegal movement of banned plastic items from the neighbouring States frequent raids are being carried out in the ULBs. So far **13,235** raids have been conducted & **4,321 tonnes** of **banned plastic items** have been seized and **Rs.94.00** Lakhs fine is collected.
- xii. **Video Conference Review meetings:** Review meetings in respect of compliance to NGT directions were held under my Chairmanship on 28.08.2019 & 29.08.2019, 25.09.2019 & 26.09.2019, 25.10.2019 & 30.10.2019, 26.11.2019, 07.12.2019 & 18.12.2019, 02.01.2020 & 04.01.2020, 03.02.2020 & 04.02.2020 with Deputy Commissioners of districts and other concerned officers.
- xiii. **SWM Bye laws have been notified in official Gazette vide GO dated: 09.10.2019.**
- xiv. State **Urban SWM Policy and Strategy** will be finalized by 31.03.2020.
- xv. Rapid & extensive IEC activities in all ULBs are being conducted.
- xvi. **Anti-littering campaigns** are conducted regularly in ULBs.
- xvii. Bhalki, Pavagada, Madhugiri, Shivamogga Bagalkote, Kumta & Ankola cities have started pipe/home composting and the same is showcased to be adopted & practiced in other ULBs.



- xviii. Electronic City Township Industrial Authority (ELCITA) is managing MSW and other wastes in a smart way scientifically.
- xix. Divisional/District/ULB Level Training Programmes for Commissioners/Chief Officers/Health Officers have been conducted.
- xx. The State Level Monitoring Committee for Solid Waste Management headed by Hon'ble Justice Sri. Subhash B Adi has conducted 56 meetings & details are enclosed as **Annexure-R8** [Pgs. 486 to 488].
- xxi. Best Practices in Solid Waste Management converting the waste into useful resource have been adopted by ULBs and details are enclosed as **Annexure-R9** [Pgs. 489 to 492].
- xxii. The Belagavi City Corporation has established a Smart Command & Control Room for monitoring SWM Activity. The same will be established in Six (Mangalore, Bangalore, Tumakuru, Dharwad, Shivamogga, Davangere) other cities under Smart City Scheme.
- xxiii. The details of significant achievement in SWM activities for seven model cities is enclosed as **Annexure-R10** [Pgs. 493 to     ].
- xxiv. The Government is establishing Faecal Sludge & Septage Treatment Plants (FSSTP) in fifty five cities for which tenders for appointing Project Management Consultants (PMC) have been invited and evaluation is under process.
- xxv. The EMPRI has conducted 106 Trainings/Workshops for 14,411 participants on Waste Management Rules and details are enclosed as **Annexure-R11** [Pgs. 494 to 498].
- xxvi. During Swachtha Hi Seva Campaign held in 11<sup>th</sup> September-2019 to 2<sup>nd</sup> October-2019, 1047 tonnes of non-recyclable plastic was collected and arrangements have been made for co-processing in Cement plants as an alternative fuel.
- xxvii. Kempegowda International Airport Limited (KIAL) Bengaluru has used plastic waste in the formation of pavements & roads



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- in the premises. It is also planning to setup KIOSKS across the city to collect the plastic waste from citizens as well.
- xxviii. The Bruhat Bengaluru Mahanagara Palike (BBMP) has adopted Indore model for sweeping, collection, transportation, processing & disposal in consultation with Technical Consultants of Indore Municipal Corporation.
- xxix. The BBMP and other ULBs have introduced Biometric System for monitoring the attendance of PKs & also BBMP has appointed Marshals for monitoring SWM activities.
- xxx. The BBMP is collecting fines through PoS (Point of Sale) machines.
- xxxi. In addition to existing 141 Dry Waste Collection Centres (DWCCs) in BBMP, ten modern DWCCs are being setup in association with a Netherlands company.
- xxxii. A Unique programme called COMPOST SANTHE is being organized with the help of Citizens group periodically.
- xxxiii. The extent of penalty/fines prescribed in SWM Bye-Laws for Non-Compliance to SWM Rules-2016 is enclosed and marked as **Annexure-R12 [Pgs. 499 to 502]**.

**Rural Development and Panchayat Raj Department:**

- i. Karnataka State under SBM-G is taking up necessary measures for collection, segregation, treatment and disposal of Solid Waste in an eco-friendly manner and has attained Open Defecation Free status on 19th, November 2018. Solid and Liquid Waste Management has been addressed as ODF+(Plus) activity through which Clean Village concept is being promoted.
- ii. For effective Solid Waste Management in rural areas, the following measures are being undertaken:
- Segregation of solid waste at the household level (Biodegradable and non-bio degradable)
  - 3Rs (Reduce, Reuse and Recycle) for effective disposal.
  - Household-level treatment of biodegradable waste
  - Systematic collection & transportation



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- Bio-degradable waste is composted with suitable technologies and waste is reduced & reused to the maximum extent at community-level.
- Non-Biodegradable waste is being recycled and Sale of recyclables is followed at the community level.

iii. Out of 6,021 Grama Panchayats (GPs);

a. As on 30-01-2020, 960 Solid Waste Management units were sanctioned, out of which 191 units are functional and out of 191 functional GPs, 114 GPs are following 100% source segregation.

b. The department has accorded in-principle approval to take up Solid Waste Management activities in all 6021 Gram Panchayaths in Karnataka vide office GO No: RDWS&SD/126/SBM-G/Proj.M/2019 dated 14-10-2019.

iv. The State is exploring options to set up decentralized facilities across all the 30 districts for safe Liquid Waste Management and it is planned to take up 176 liquid waste management units, for which Rs. 88 Cr. has been earmarked.

v. For the FY 2019-20, it is proposed to take up 30 GOBARDHAN Projects in 1st Phase across the State covering at least one Gram Panchayath in each district. GOBARDHAN projects were implemented in Bashettyhalli GP of Bengaluru Rural dist and Varambally GP of Udupi dist and approval is accorded to take up projects in 3 other districts (Dakshin Kannada, Udupi & Uttar Kannada):

vi. Udupi Zilla Panchayath is setting up Material Recovery Facility (MRF) of 10 TPD capacity at Nitte Gram Panchayath and action is being taken by the Department to set up 3 more MRFs in Dakshina Kannada, Dharwad and Ballari districts.

vii. To accelerate the pace of implementation of SWM projects, Panchayat Raj Institution (PRI) representatives and officers concerned have visited places and are continuously visiting GPs with best practices on SWM in the State such as Vandse, Nitte, Varamballi, Kolluru of Udupi district, Laila, Hosangadi and



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Dharmasthala of Dakshin Kannada dist and Multi GP SWM management at Huligi GP of Koppal dist.

- viii. SLWM workshops have been organized for PRI representatives, officers concerned and consultants as well as stakeholders on SWM, LWM, Menstrual Hygiene Management (MHM), ODF Plus and ODF S activities Details are at **Annexure-R13 [Pgs. 503 to 7]**.
- ix. State-level consultants have visited all districts, during which they have not only provided necessary orientation to the district level officers but also helped them to formulate feasible SWM detailed project reports (DPRs).
- x. To create awareness on toilet usage, safe drinking water, plastic usage, waste segregation, etc., the following activities have been successfully completed as below;

Sl. No	Particulars of activities held during Sep 2019 to Dec 2019
1	Radio Programme
2	Branding & LED Advertisement in Railway Stations
3	Bus branding Activities
4	Audio jingle announcements in KSRTC Bus Station
5	Mass Awareness Programme of 'Kalajathas'
6	Advertising in cinema theatres
7	Swachh Meva Jayate Website Design
8	Paper Advertisement
9	Social Media Activities
10	MHM Documentary Movie

- xi. Directions have been issued to all Zilla Panchayats to ban single use packaged plastic water bottles.

xii. The State Sanitation Policy, Strategy & Model Bye-laws on SLWM was drafted & published for public notification and the inputs obtained have been appropriately incorporated. The State Cabinet



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approved the Sanitation Policy, Strategy & Model Bye-laws on 17.02.2020.

xiii. Best practices by some of GPs in rural areas is enclosed as Annexure-R14 [Pgs. 504 to 408].

WHEREFORE, I respectfully pray that this Hon'ble Tribunal may be pleased to accept the above information in the interest of justice and equity.

*M. Vijayashankar*  
**DEPONENT**

**VERIFICATION**

I, the above named Deponent do hereby verify that all the facts stated in the affidavit are true to my knowledge and that no part thereof is false and nothing material is concealed there from.

Verified at Bengaluru on  
18 day of Feb 2020

*M. Vijayashankar*  
**DEPONENT**

**Identified by me:**



SWORN TO BEFORE ME

*M. Vijayashankar*  
**MARI**  
NOTARY PUBLIC & NOTARY  
#45/1, Behind Binny Mill  
1st Main Road, Ganganagar Extn  
BENGALURU 560 032

*Ravi*

GOVT. OF KARNATAKA  
HAS DISCONTINUED THE  
USE OF STAMPS W.E.F. 1-4-2003

Compliance to Solid Waste Management Rules 2016

ANNEXURE-R-1A

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Sl. No	SWM Rule Clause	Provisions of SWM Rules 2016	Implementation status in ULBs other than BBMP				
1	2	3	4				
			Current Status	Desirable Level of Compliance in terms of statutes	Gap Between current status and desired levels (in %)	Proposal of attending the gap with time lines	Name and designation of designated officer for ensuring compliance to provisions under statute (Deputy Commissioner/ Project Director)
1	4(a)& 15 (g)	<p>Segregate and store the waste generated by them in three separate streams namely bio-degradable, non-biodegradable and domestic hazardous wastes</p> <p>Direct waste generators not to litter and to segregate the waste at source as prescribed under these rules</p>	<p>The ULBs are practicing source segregation of MSW into three streams.</p> <p>Total No of Wards: 6494 Total wards with 100% source segregation: 3496.</p> <p>Littering is being tackled through IEC component under Swachh Bharat Mission followed by penal action.</p>	100%	46	March-2021	Project Directors DUDCs All Districts

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2	4(2)	No waste generator shall throw, burn or burry the solid waste generated by him, on streets, open public spaces outside his premises or in the drain or water bodies.	General public & all waste generators have been instructed not to throw, burn or bury the MSW. Any violations will attract penal action as per Model SWM Bye laws. Penal action clause and penalty amount has been prescribed in Model SWM Bye laws. A copy of penal imposing structure is enclosed as <b>Annexure-R12</b> [Pgs. _____ to _____].	100%	16.72	September-2020
3	4(3)& 15 (f)	All waste generators shall pay such user fee for solid waste management, as specified in the bye-laws of the local bodies	SWM cess is being collected along with property tax. Collection of SWM User fee is being implemented as per Karnataka Municipalities SWM Bye Laws 2019.	100%	26	March-2021
4	4 (8)	All Bulk waste generator (resident welfare and market associations, gated communities and institutions with more than 5,000 Sq.m area & all hotels and restaurants) shall process and disposed off the bio-degradable waste through composting or bio-methanation within the premises as far as possible	The ULBs are insisting bulk waste generators to practice on-site composting.  In SWM Bye law, one year of grace period is given for the bulk generators to develop in-situ wet waste processing or to have system in place for processing through common private agency.  After completion of the grace period, penalty will be levied against defaulters as per the provisions in bye law.	100%	42.69	Dec-2020
5	12(a)	Facilitate identification and allocation of suitable land for Processing & Disposal of MSW	Total No of ULBs: 279 Total No of ULBs with landfill sites: 214 Total No of ULBs with Common landfill facilities: 3 No of ULBs yet to procure landfill sites: 58 Total ULBs where land has been identified for SWM facility: 56	100%	21	Dec-2020

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6	12(b)	Review the performance of local bodies, at least once in a quarter on waste segregation, processing, treatment and disposal and take corrective measures in consultation with UDD	The DCs are reviewing the progress of implementation of SWM Rules-2016 regularly.	100%	Nil	Complied	
7	15(a)	Prepare a solid waste management plan as per state policy and strategy on solid waste management within six months from the date of notification (DPR under SBM can be considered as Action Plan)	Total No of ULBs: 279 Total No of ULBs who have finalised SWM DPRs : 217 The draft state policy & strategy will be finalized by DPRs for newly upgraded ULBs will be placed before SLHPC and implementation of them will be undertaken.	100%	21.1	March-2020.  September-2020	
8	15(b)	Arrange for door to door collection of segregated solid waste from all households including slums and informal settlements, commercial, institutional and other non-residential premises	Total Wards in the 279 ULBs: 6530 Total Wards with 100% D/D collection in 279 ULBs: 6437 Door to door collection of waste is being carried out in all the areas including slums and informal, settlements, commercial, institutional and other non-residential premises.	100%	1.43	May-2020	
9	15(c)	Establish a system to recognise organisations of waste pickers or informal waste collectors and promote and establish a system for integration of these authorised waste pickers and waste collectors to facilitate their participation in solid	Waste Pickers have been identified in all ULBs. The integration is under process.	100%	29.28	September-2020	

*Mohit*

		waste management				
10	15(d)& 15 (h)	Facilitate formation of Self Help Groups, provide identity cards and thereafter encourage integration in solid waste management. Setup material recovery facilities or secondary storage facilities with sufficient space for sorting of recyclable materials	Self Help Groups are utilized for collection & transportation of bulk waste generated in commercial areas in some of the ULBs.  Material recovery facilities are to be established.	100%	38.26	December-2020
11	15(e)	frame bye-laws incorporating the provisions of these rules within one year from the date of notification of these rules	Bye laws have been framed & notified	100%	Nil	Complied
12	15(i)	Establish waste deposition centres for domestic hazardous waste and give direction for waste generators to deposit domestic hazardous wastes at this centre for its safe disposal	All ULBs have been instructed to earmark some portion at DWCC for temporary depositing of domestic hazardous waste and the said waste shall be processed as per the relevant Rules.  Waste indicated in Domestic hazardous waste definition covered partially under BMW Rules 2016 and partially under HWM Rules 2016. The waste falling under the definition of Bio Medical Waste shall be treated in 26 Common Bio-Medical Waste Processing Facilities (CBWPF) in the State and waste	100%	80	December - 2020

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			falling under Hazardous Waste category should be disposed in Hazardous Waste Processing facility existing at Dabaspete and Ramanagar			
13	15(k)	direct street sweepers not to burn tree leaves collected from street sweeping	Directions have been issued to street sweepers not to burn leaves. Efforts are being taken to collect tree leaves separately & to process same in the parks.	100%	4.007	March-2020
14	15(l)	Provide training on solid waste management workers & waste pickers.	Regular trainings are being conducted	100%	4.422	March-2020
15	15(m)	Collect waste from vegetable, fruit, flower, meat, poultry and fish market on day to day basis and promote setting up of decentralised compost plant or bio-methanation plant at suitable locations in the markets	Where ever place is available, ULBs are processing waste from vegetable, fruit, flower, meat, poultry and fish market through decentralized waste processing methods like Vermicompost, stack compost etc. 9 ULBs have small scale functional biomethanation units.	100%	36.84	December-2020
16	15(p)	Collect horticulture, parks and garden waste separately and process in the parks and gardens, as far as possible	ULBs are practicing to process the waste by adopting decentralized method wherever it is feasible.	100%	33.89	December-2020
17	15(t)	Involve communities in waste management and promotion of home composting, bio-gas generation, decentralised processing	Regular awareness is being carried out for promotion of home composting. Non-government organizations, college students are also being involved for awareness on home composting	100%	55.53	Dec-2020

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By: DIVIA, ANILKUMAR

18	15(v)	Construction, operation and maintenance of solid waste processing & disposal facilities	Civil works for solid waste processing & disposal facility are under construction and procurement of vehicles and machineries will be completed soon.	100%	59	March-2021
19	15(x)	Make adequate provision of funds for capital investments as well as operation and maintenance of solid waste management services in the annual budget	58% of the SWM DPR capital cost is borne by Swachh Bharat Mission (Urban) and ULBs have to pool in rest of the 42% of the project cost under 14 <sup>th</sup> FC, SFC and others.  Funds are being allocated for operation and maintenance of SWM activities in ULBs.	100%	42	March-2021
20	15(za)	Prepare and submit annual report in Form IV on or before the 30th April of the succeeding year	All ULBs have submitted Form IV for the year 2018-19 and for the present year action will be taken to submit the Annual Report.	100%	Nil	Complied
21	15(zf)	Frame bye-laws and prescribe criteria for levying of spot fine for persons who litters or fails to comply with the provisions of these rules	Bye-Laws have been framed and notified. ULBs are in the process of adopting the same for implementing SWM Rules-2016.	100%	Nil	Complied
22	15(zg)	Create public awareness through information, education and communication campaign and educate the waste generators	IEC programs are being conducted regularly to educate the public and it is a continuous process.	100%	22.01	September-2020
23	15(zj)	Investigate and analyse all old open dumpsites and existing operational dumpsites for their potential of bio mining and bio-remediation/scientificallly capped	A Committee is being constituted by Government to guide the ULBs for disposal of legacy waste.  Also all open dump sites have been identified by ULBs and appropriate action will be taken to reclaim the land.	100%	50.88	March-2021

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24	19, 20 & 21	Criteria for Duties regarding setting-up solid waste processing and treatment facility Criteria and actions to be taken for solid waste management in hilly areas Criteria for waste to energy process	It is ensured that the CPCB guidelines & CPHEEO manuals are referred for fixing all the criteria and incorporated in the DPRs prepared	100%	Nil	Complied
25	22	Time frame for implementation	The civil works for processing facilities are under progress whereas; the vehicles & machineries required for SWM activity will be bought from GEM portal. The ULBs were directed to ensure all obligations under SWM Rules-2016 are implemented adhering to timelines.	100%	30	March-2021
26	23	State Level Advisory Body (SLAB)	Meeting are being held regularly	100%	Nil	Complied
27	24	Annual report.	Submitted	100%	Nil	Complied

*Nil*

No.	Proposed activity as per SWM Rules 2016	achieving
	Identification of suitable sites for setting up solid waste processing facilities	Complied
2	Identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand-alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more .	NA
3	Procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities	December-2020
4	Enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source	March-2021
5	Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.	March-2021
7	Setting up solid waste processing facilities by all local bodies having 100000 or more population	Dec-2020
8	Setting up solid waste processing facilities by local bodies and census towns below 100000 populations.	March-2021
9	Setting up common or stand-alone sanitary landfills by or for all local bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules	4 ULBs – More than 0.5 million population in State (BBMP, HDMC, Mysore, Kalburgi) BBMP and Mysore has Standalone SLFs , HDMC and Kalaburgi Cities have invited tender December-2020
10	Setting up common or regional sanitary landfills by all local bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules	NA (All ULBs are proposed to have Standalone SLFs in the State)
11	Bio-remediation or capping of old and abandoned dump sites	March-2021

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BY: DDMP, ANNEXURE-RIB

Compliance to Solid Waste Management Rules 2016

ANNEXURE-RIB

Sl. No	SWM Rule Clause	Provisions of SWM Rules 2016	Implementation status of Bruhat Bangaluru Mahanagara Palike.				
1	2	3	4				
<b>Compliance to duties of waste generators</b>							
			<b>Current Status</b>	<b>Desirable Level of Compliance in terms of statutes</b>	<b>Gap Between current status and desired levels</b>	<b>Proposal of attending the gap with time lines</b>	<b>Name and designation of designated officer for ensuring compliance to provisions under statute (Deputy Commissioner/ Project Director) with Mobile No.</b>
1	4(a)& 15 (g)	<p>Segregate and store the waste generated by them in three separate streams namely bio-degradable, non-biodegradable and domestic hazardous wastes</p> <p>Direct waste generators not to litter and to segregate the waste at source as prescribed under these rules</p>	<p>Strict directions have been issued to all Wards to ensure source segregation of waste in three streams and implement SWM Rules-2016.</p> <p>Littering is being tackled through IEC component under Swachh Bharat Mission followed by penal action.</p> <p>Marshals are appointed to impose penalty on the SWM Rules violators. Penalty is as stipulated.</p>	100%	65%	<p>More enforcement and levy of penalties along with IEC will help reach target by Dec-2020</p>	<p>SWM Cell officials and Zonal Joint Commissioners / CEs of all 8 zones of BBMP</p>

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By. DDIV, ANNEAURE-110

2	4(2)	No waste generator shall throw, burn or bury the solid waste generated by him, on streets, open public spaces outside his premises or in the drain or water bodies.	Strict directions have been issued to all zonal Joint commissioners and their swm officials to ensure no waste is burn or buried.	100%	30%	More enforcement and levy of penalties along with IEC will help reach target by Dec-2020
3	4(3)& 15 (f)	All waste generators shall pay such user fee for solid waste management, as specified in the bye-laws of the local bodies	SWM cess is being collected along with property tax. Collection of SWM User fee will be implemented as per SWM Bye Laws 2019 after approval.	100%	-	There is no gap as of now as SWM User Charges are yet to be notified.
4	4 (8)	All Bulk waste generator (resident welfare and market associations, gated communities and institutions with more than 5,000 Sq.m area & all hotels and restaurants) shall process and disposed off the bio-degradable waste through composting or bio-methanation within the premises as far as possible	Circulars have been issued to ensure on-site composting is being adopted by all the bulk waste generators and to levy penalty as per the bye laws for Violators of this circular.	100%	80%	BBMP proposes to make this mandatory through its SWM Byelaws and ensure compliance by Dec-2020
5	12(a)	Facilitate identification and allocation of suitable land for Processing & Disposal of MSW	Lands identified for MSW processing facility	100%	40%	Additional sites for processing unsegregated and segregated waste have

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399  
 BY. DDIV, ANNAPURTHI

						been identified. Allocation process is underway. Dec-2021	
6	12(b)	Review the performance of local bodies, at least once in a quarter on waste segregation, processing, treatment and disposal and take corrective measures in consultation with UDD.	Zonal Joint commissioners are conducting regular review of implementation of SWM Rules-2016 in there zones.	100%	20%	Almost all JCs are reviewing. July-2020	
7	15(a)	Prepare a solid waste management plan as per state policy and strategy on solid waste management within six months from the date of notification (DPR under SBM can be considered as Action Plan).	A draft state policy & strategy has been prepared by Govt but not yet notified.	100%	100%	Unless State Policy is notified, the solid waste management plan cannot be prepared.	
8	15(b)	Arrange for door to door collection of segregated solid waste from all households including slums and informal settlements, commercial, institutional and other non-residential premises	Door to door collection of waste is done in all the wards including slums and informal settlements, commercial, institutional and other non-residential premises.	100%	20%	With new tenders for collection and transportation in place, 100% coverage can be achieved by Dec-2020	

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By. DDMP, ANNEAURE-RLB

9	15(c)	Establish a system to recognise organisations of waste pickers or informal waste collectors and promote and establish a system for integration of these authorised waste pickers and waste collectors to facilitate their participation in solid waste management	Waste Pickers are identified in all wards. Integration of them is under process.  Some of them are integrated into Maintenance and operation of Dry Waste Collection Centres.	100%	50%	Dec-2020
10	15(d) & 15(h)	Facilitate formation of Self Help Groups, provide identity cards and thereafter encourage integration in solid waste management. setup material recovery facilities or secondary storage facilities with sufficient space for sorting of recyclable materials	Self Help Groups were utilized for collection & transportation of Household waste generated in Residential area.  For material recovery, facilities are to be established.	100%	80%	Dec-2021
11	15(e)	frame bye-laws incorporating the provisions of these rules within one year from the date of notification of these rules	Bye laws have been framed. Awaiting approval of BBMP Council.	100%	100%	March-2020
12	15(i)	Establish waste deposition centres for domestic hazardous waste and give direction for waste generators to deposit domestic hazardous wastes at this centre for its safe disposal	Directions have been issued. However, a facility at Dabaspete is setup to process the same. In BBMP, Tenders are invited to collect and transport to disposal location scientifically.	100%	100%	Dec-2020
13	15(k)	direct street sweepers not to burn tree leaves collected from street sweeping	Monitoring is being at ward level, by strict supervision of Supervisors.	100%	20%	Dec-2020
14	15(l)	Provide training on solid waste management workers & waste pickers.	Regular trainings are being conducted by reputed agencies like EMPRI, who impart good training with regular followup.	100%	20%	Dec-2020

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By. DDIVIF, ANNEAURE-RID

15	15(m)	Collect waste from vegetable, fruit, flower, meat, poultry and fish market on day to day basis and promote setting up of decentralised compost plant or bio-methanation plant at suitable locations in the markets	Decentralised processing plants, like Bio-methanisation plants, Lane composting, Tender Coconut processing plant would be set up.	100%	65%	Dec-2021
16	15(p)	Collect horticulture, parks and garden waste separately and process in the parks and gardens, as far as possible	Directions have been issued to all Horticulture Superintendents and also to process the same in decentralized method by digging pits for leaf litter, lane composting, Shredder and chopper machines.	100%	30%	Dec-2021
17	15(t)	involve communities in waste management and promotion of home composting, bio-gas generation, decentralised processing	Regular awareness is being carried out for promotion of home composting. Non-government organizations, college students are also being involved for awareness on home composting. IN HSR LAYOUT, KALIKA KENDRA is established by the community participation, where in all methods of composting units are established.	100%	50%	Dec-2021
18	15(v)	Construction, operation and maintenance of solid waste processing & disposal facilities	Solid waste processing & disposal facility is constructed, operated & maintained at 8 locations processing about 1000 MTD.	100%	20%	Dec-2020
19	15(x)	Make adequate provision of funds for capital investments as well as operation and maintenance of solid waste management services in the annual budget	Sufficient funds are being allocated for SWM activities under Nagaroththana, Nava Nagaroththana, Shubra Bangaluru grants by GOK.	100%	-	Complied

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By. DDMP, ANNAPURNE

20	15(za)	Prepare and submit annual report in Form IV on or before the 30th April of the succeeding year	Annual report for SWM,PWM and C &D Waste are submitted upto 19-20 in prescribed formats to KSPCB.	100%	-	Complied
21	15(zf)	frame bye-laws and prescribe criteria for levying of spot fine for persons who litters or fails to comply with the provisions of these rules	Bye-Laws have been framed and draft notified in public Domain inviting suggestions and objections .After incorporating the said suggestions and objections , final copy of SWM Byelaws are framed and placed before BBMP Council for approval. Approval is awaited.	100%	100%	Apr-2020
22	15(zg)	create public awareness through information, education and communication campaign and educate the waste generators	IEC programs are conducted regularly to educate the public by Link Workers at ward block levels , door to door campaign.	100%	25%	Dec-2020
23	15 (zj)	investigate and analyse all old open dumpsites and existing operational dumpsites for their potential of bio mining and bio-remediation/ scientifically capped	A Committee is being constituted by Government to guide on eradication of legacy waste. Also all open dump sites have been identified and tenders are being invited for appointing agency for Bio remediation at Baglu and Bio mining at Mandur.	100%	75%	Dec-2021
24	19, 20 & 21	Criteria for Duties regarding setting-up solid waste processing and treatment facility Criteria and actions to be taken for solid waste management in hilly areas.- Criteria for waste to energy process	Action is taken to ensure that the CPCB guidelines & CPHEEO manuals are referred for fixing all the criteria. Waste to Energy plants are proposed to be established at 5 locations, on PPP model, and Tender basis.	100%	50%	Dec-2021

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403  
By: DDIVF, ANNEXURE-11D

25	22	Time frame for implementation	The wards are directed to ensure all obligations under SWM Rules-2016 are implemented adhering to timelines.	100%	-	Dec-2021	
26	23	State Level Advisory Body (SLAB)	Meeting are being held frequently as and when required at ACS UDD chairmanship.	100%	-	Complied	
27	24	Annual report.	Submitted	100%	-	Complied	

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404  
BY: DDWIF, ANNAPURNE-112

Sl. No.	Proposed activity as per SWM Rules 2016	Time frame for achieving
1	Identification of suitable sites for setting up solid waste processing facilities	Complied
2	Identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand-alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more .	NA
3	Procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities	Complied
4	Enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source ,	1 year.
5	Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.	1 year.
6	Ensure separate storage, collection and transportation of construction and demolition wastes	1 year.
7	Setting up solid waste processing facilities by all local bodies having 100000 or more population	1 year.
8	Setting up solid waste processing facilities by local bodies and census towns below 100000 population.	1 year.
9	Setting up common or stand-alone sanitary landfills by or for all local bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules -	1 year.
10	Setting up common or regional sanitary landfills by all local bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules	1 year.
11	Bio-remediation or capping of old and abandoned dump sites	1 year.

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ANNEXURE-R1c

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**Status of compliance to the Solid Waste Management Rules, 2016**

**(Order of the Hon'ble National Green Tribunal in OA No.606/2018)**

Sl. No	Gist of provisions of SWM Rules 2016	Status of compliance	Desirable level of Compliance in terms of Status	Gap Between current status and desired levels	Proposed timeline for total compliance	Name and designation of designated officer for ensuring compliance
1	2	3	4	5	6	
	<b>Compliance w.r.t. duties of Waste Generators</b>					
1	<p><b>Rule 4(a)</b> Segregate and store the waste generated in separate streams of namely bio-degradable, non-biodegradable and domestic hazardous wastes in suitable bins and handing over to authorized waste pickers/waste collectors as per the directions of Gram Panchayats(GPs)</p> <p><b>Rule 15 (g)</b> Not to litter i.e throw or dispose of any waste such as paper, etc and to segregate the waste at source as well as handover the segregated waste to authorized waste pickers/waste collectors</p>	<p>Total GPs in the State -6021 No of SWM DPRs approved : 925 GPs GPs practicing 100% source segregation: 114 GPs practicing partial source segregation: 77</p> <p>Littering will be stopped and segregation of waste will be ensured through various strategies under Information, Education and Communication(IEC) component under the guidelines of Swachh Bharat Mission(Gramin)</p> <p>The Department has already accorded in principle approval to take up Solid Waste Management activities in all 6021 Gram Panchayaths in Karnataka vide office GO No: RDWS&amp;SD/126/SBM-G/Proj.M/2019 dated 14-10-2019 as per SWM Rules – 2016.</p>	100%	84%	March 2022	Executive Officer at Taluka Panchayat

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Sl. No	Gist of provisions of SWM Rules 2016	Status of compliance	Desirable level of Compliance in terms of Status	Gap Between current status and desired levels	Proposed timeline for total compliance	Name and designation of designated officer for ensuring compliance
1	2	3	4	5	6	
2	<p><b>Rule 4(2)</b> No throwing/burning/burying the solid waste generated on streets, open public spaces outside the premises or in the drain or water bodies.</p>	<p>Throwing of waste on the roads and public places will be stopped and action will be taken to stop the burning or burying of solid waste The Department has issued GO regarding not to burn / dump waste openly. Trainings and Workshops are being conducted regularly to Executive Officers of Taluk Panchayats(TPs), Panchayat Development Officers of GPs and Panchayat Raj Representatives on prohibition of burning of waste and open dumping. Out of 6021 GPs, in 925 GPs SWM Plans are approved and in 191 GPs units SWM units are operational</p>	100%	96%	March 2022	Executive Officer at Taluka Panchayat
3	<p><b>Rule 4(3)&amp; Rule 15(f)</b> Payment of user fee for solid waste management, as specified in the by-laws of GPs</p>	<p>Out of 6021 GPs, in 925 GPs SWM Plans are approved and in 191 GPs units SWM units are operational and out of 191 GPs 114 GPs are collecting user fee for solid waste collection and management</p>	100%	98%	March 2022	Executive Officer at Taluka Panchayat
4	<p><b>Rule 4 (8)</b> Bulk Waste Generators (Resident Welfare and Market Associations, Gated Communities and Institutions</p>	<p>Out of 6021 GPs, in 925 GPs SWM Plans are approved and in 191 GPs units SWM units are operational. Bulk Waste Generators are processing and disposing</p>	100%	96%	March 2022	Executive Officer at Taluka Panchayat

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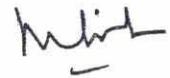
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Sl. No	Gist of provisions of SWM Rules 2016	Status of compliance	Desirable level of Compliance in terms of Status	Gap Between current status and desired levels	Proposed timeline for total compliance	Name and designation of designated officer for ensuring compliance
1	2	3	4	5	6	
	with more than 5,000 sqm area & Hotels and Restaurants) shall process and dispose off the bio-degradable waste through composting or bio-methanation within the premises	the biodegradable waste through Composting or Bio-methanation within the premises wherever feasible in these GPs.				
	<b>Compliance w.r.t. duties of Deputy Commissioner(DC)</b>					
5	<b>Rule 12(a)</b> Facilitate identification and allocation of suitable land for processing & disposal	Out of 6021 GPs, 2335 GPs have suitable land for processing & disposal of solid waste. Remaining GPs are in the process of procuring required lands. Chief Executive Officers of Zilla Panchayats are identifying suitable land in the GP limits.	100%	61%	March-2022	Executive Officer at Taluka Panchayat
6	<b>Rule 12(b)</b> Review the performance of local bodies, at least once in a quarter on waste segregation, processing, treatment and disposal and take corrective measures in consultation with Commissioner (Rural Water Supply and Sanitation Department)	CEOs of ZPs have been reviewing the performance of GPs in respect of compliance of the provisions of Rule 12 (b)	100%	Nil	Complied	Executive Officer at Taluka Panchayat

Sl. No	Gist of provisions of SWM Rules 2016	Status of compliance	Desirable level of Compliance in terms of Status	Gap Between current status and desired levels	Proposed timeline for total compliance	Name and designation of designated officer for ensuring compliance
1	2	3	4	5	6	
	<b>Compliance w.r.t duties of Gram Panchayats(GPs)</b>					
7	<b>Rule 15(a)</b> Prepare a solid waste management plan as per State policy and strategy on solid waste management within six months from the date of notification of the State policy	Out of 6021 GPs, till date 925 GPs Solid Waste Management plans have been approved.	100%	84%	March - 2022	Executive Officer at Taluka Panchayat
8	<b>Rule 15(b)</b> Arrange for door to door collection of segregated solid waste from all households including slums and informal settlements, commercial, institutional and other non-residential premises	Out of 6021 GPs, in 925 GPs SWM Plans are approved and in 191 GPs units SWM units are operational and 100% door to door waste collection is being carried out in 114 GPs	100%	98%	March - 2022	Executive Officer at Taluka Panchayat
9	<b>Rule 15(c)</b> Establish a system to recognise organisations of waste pickers or informal waste collectors and promote and establish a system for integration of these authorised waste-pickers and waste collectors to facilitate their participation in solid waste management	Udupi, Dakshina Kannada, Koppal, Bengaluru Urban and Kodagu districts have taken the lead in facilitating the network of waste pickers in their GPs for proper management of solid waste. The same will be escalated further in other districts also.  State is in the process of integrating waste collectors / waste pickers for solid	100%	96%	March - 2022	Executive Officer at Taluka Panchayat

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Sl. No	Gist of provisions of SWM Rules 2016	Status of compliance	Desirable level of Compliance in terms of Status	Gap Between current status and desired levels	Proposed timeline for total compliance	Name and designation of designated officer for ensuring compliance
1	2	3	4	5	6	
		waste management in rural areas. Out of 6021 GPs, in 925 GPs SWM Plans are approved and in 191 GPs units SWM units are operational				
10	<b>Rule15(d)</b> Facilitate formation of Self Help Groups, provide identity cards and thereafter encourage integration in solid waste management. <b>Rule15 (h)</b> Setup material recovery facilities or secondary storage facilities with sufficient space for sorting of recyclable materials	Self Help Groups have been formed in Udupi and Dakshina Kannada districts for the proper integration of solid waste management  Out of 6021 GPs, in 925 GPs SWM Plans are approved and in 191 GPs units SWM units are operational, in 191 GPs Dry waste collection centres have been set up.	100%	96%	March - 2022	Executive Officer at Taluka Panchayat
11	<b>Rule15(e)</b> Frame bye-laws incorporating the provisions of these Rules within one year from the date of notification of these Rules	The State Sanitation Policy, Strategy & Model Bye-laws on SLWM was drafted & published for public notification and the inputs obtained have been appropriately incorporated in the policy. Further file was moved for Political clearance for which clearance has been obtained. The Sanitation Policy, Strategy & Model Byelaws were also sent to 15 Departments for their kind concurrence	100%	0%	Complied	Commissioner RDW&SD



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Sl. No	Gist of provisions of SWM Rules 2016	Status of compliance	Desirable level of Compliance in terms of Status	Gap Between current status and desired levels	Proposed timeline for total compliance	Name and designation of designated officer for ensuring compliance
1	2	3	4	5	6	
		& inputs given were suitably incorporated. The Cabinet note is prepared and sent for approval to be placed before the Cabinet.				
12	<b>Rule 15(i)</b> Establish waste deposition centres for domestic hazardous waste and give direction for waste generators to deposit domestic hazardous wastes at this centre for its safe disposal	Dry waste collection centres in GPs are being provided with separate compartments for deposition of domestic hazardous waste in GPs. Out of 6021 GPs, in 925 GPs SWM Plans are approved and in 191 GPs units SWM units waste deposition centers established for domestic hazardous waste.	100%	96%	March - 2022	Executive Officer at Taluka Panchayat
13	<b>Rule 15(k)</b> Direct street sweepers not to burn tree leaves collected from street sweeping and store them separately to be handed over to waste collectors.	Fallen tree leaves are not being burnt and handed over to authorized waste collecting agencies. GO is issued in this regard.	100%	96%	March - 2022	Executive Officer at Taluka Panchayat
14	<b>Rule 15(l)</b> Provide training on solid waste management to waste pickers/waste collectors	In all GPs, Various Training activities are taken up to address this issue.	Nil	Nil	Complied	Executive Officer at Taluka Panchayat
15	<b>Rule 15(m)</b> Collect waste from vegetable, fruit, flower, meat, poultry and fish markets	Out of 6021 GPs, in 925 GPs SWM Plans are approved and in 191 GPs units SWM units are operational and 114 GPs	100%	98%	March - 2022	Executive Officer at Taluka

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Sl. No	Gist of provisions of SWM Rules 2016	Status of compliance	Desirable level of Compliance in terms of Status	Gap Between current status and desired levels	Proposed timeline for total compliance	Name and designation of designated officer for ensuring compliance
1	2	3	4	5	6	
	on day to day basis and promote setting up of decentralised compost plant or bio-methanation plant at suitable locations in the markets	are following day to day collection of waste from all the commercial shops and markets and the same is being treated by adopting different composting methods				Panchayat
17	<b>Rule 15(t)</b> Involve communities in waste management and promotion of home composting, bio-gas generation, decentralised processing	Communities are being involved in household pipe composting, pot composting and livestock feeding Out of 6021 GPs, in 925 GPs SWM Plans are approved and in 191 GPs units SWM units are operational and Communities are involved for waste management	100%	96%	March - 2022	Executive Officer at Taluka Panchayat
18	<b>Rule 15(v)</b> Construction, operation and maintenance of solid waste processing facilities and associated infrastructure with preference to be given to decentralised processing to minimise transportation cost and environmental impacts such as a. bio-methanation, microbial composting, vermi-composting, anaerobic digestion or any other appropriate processing for bio-stabilisation of biodegradable	The Department has already accorded in principle approval to take up Solid Waste Management activities in all 6021 Gram Panchayaths in Karnataka vide office GO No: RDWS&SD/126/SBM-G/Proj.M/2019 dated 14-10-2019 as per SWM Rules - 2016. Out of 6021 GPs, till date 925 GPs Solid Waste Management plans have been approved	100%	84%	March - 2022	Executive Officer at Taluka Panchayat

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Sl. No	Gist of provisions of SWM Rules 2016	Status of compliance	Desirable level of Compliance in terms of Status	Gap Between current status and desired levels	Proposed timeline for total compliance	Name and designation of designated officer for ensuring compliance
1	2	3	4	5	6	
	wastes b. waste to energy processes including refused derived fuel for combustible fraction of waste or supply as feedstock to solid waste based power plants or cement kilns					
19	<b>Rule15(x)</b> Make adequate provision of funds for capital investments as well as operation and maintenance of solid waste management services in the annual budget	Capital investment of Rs. 20 Laks per GP is covered under SBM-G and additional Capex is met out in convergence with other schemes i.e MGNREGA, 14th Finance, MPLAD & MLALAD schemes. At present operation and maintenance of solid waste management services are covered through GP / CSR funds. Out of 6021 GPs, in 925 GPs SWM Plans are approved and in 191 GPs units SWM units are operational	100%	96%	March - 2022	Executive Officer at Taluka Panchayat
20	<b>Rule15(za)</b> Prepare and submit annual report in Form IV on or before the 30th April of the succeeding year	Necessary action will be taken to submit Annual reports as applicable to Gram Panchayats to KSPCB	100%	Nil	Complied	Executive Officer at Taluka Panchayat

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Sl. No	Gist of provisions of SWM Rules 2016	Status of compliance	Desirable level of Compliance in terms of Status	Gap Between current status and desired levels	Proposed timeline for total compliance	Name and designation of designated officer for ensuring compliance
1	2	3	4	5	6	
21	<b>Rule 15(zf)</b> frame bye-laws and prescribe criteria for levying of spot fine for persons who litters or fails to comply with the provisions of these rules	The State Sanitation Policy, Strategy & Model Bye-laws on SLWM was drafted & published for public notification and the inputs obtained have been appropriately incorporated in the policy. Further file was moved for Political clearance for which clearance has been obtained. The Sanitation Policy, Strategy & Model Byelaws were also sent to 15 Departments for their kind concurrence & inputs given were suitably incorporated. The Cabinet note is prepared and sent for approval to be placed before the Cabinet.	100%	Nil	Complied	Commisioner RDW&SD
22	<b>Rule 15(zg)</b> create public awareness through information, education and communication campaign and educate the waste generators	IEC activities such as Kalajatha, Audio play for collection mechanism, preparation of brochures, post cards, street plays, dramas and hoardings are being taken up intensively at GP level: Social outreach by twitter, Instagram, Facebook, WhatsApp. Preparation of brochures on solid resource management and Video documentation on solid resource management.	100%	Nil	Complied	Executive Officer at Taluka Panchayat

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Sl. No	Gist of provisions of SWM Rules 2016	Status of compliance	Desirable level of Compliance in terms of Status	Gap Between current status and desired levels	Proposed timeline for total compliance	Name and designation of designated officer for ensuring compliance
1	2	3	4	5	6	
23	<b>Rule 15(zj)</b> Investigate and analyse all old open dumpsites and existing operational dumpsites for their potential of bio-mining and bio-remediation/scientificallly capped	Out of 6021 GPs, in 925 GPs SWM Plans are approved and in 191 GPs units SWM units are operational and all old open dumpsites potential of bio-mining and bio-remediation are being explored	100%	96%	March - 2022	
24	<b>Rule 19</b> Criteria for Duties regarding setting-up solid waste processing and treatment facility <b>Rule 20</b> Criteria and actions to be taken for solid waste management in hilly areas.- <b>Rule 21</b> Criteria for waste to energy process	Criteria for Duties regarding setting-up solid waste processing and treatment facility is covered under a draft Karnataka State Rural Sanitation policy, strategy, and byelaw, for Solid & Liquid Waste Management, prepared by RDW&SD after extensive public consultation. The Sanitation Policy, Strategy & Model Byelaws were also sent to 15 Departments for their kind concurrence & inputs given were suitably incorporated. The Cabinet note is prepared and sent for approval to be placed before the Cabinet.	100%	Nil	Complied	Commisioner RDW&SD
25	<b>Rule 22</b> Time frame for implementation	The time frame for implementation of SWM units are covered under a draft Karnataka State Rural Sanitation policy, strategy, and byelaw, for Solid & Liquid Waste Management, prepared by RDW&SD after extensive public	100%	Nil	Complied	Commisioner RDW&SD

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Sl. No	Gist of provisions of SWM Rules 2016	Status of compliance	Desirable level of Compliance in terms of Status	Gap Between current status and desired levels	Proposed timeline for total compliance	Name and designation of designated officer for ensuring compliance
1	2	3	4	5	6	
		consultation. The Sanitation Policy, Strategy & Model Byelaws were also sent to 15 Departments for their kind concurrence & inputs given were suitably incorporated. The Cabinet note is prepared and sent for approval to be placed before the Cabinet.				
26	<b>Rule 23</b> State Level Advisory Body (SLAB)	SLAB is constituted on 03-06-2016, regular meetings are being conducted.	100%	Nil	Complied	
27	<b>Rule 24</b> Annual report.	Necessary action will be taken to submit Annual reports as applicable to Gram Panchayats	100%	Nil	Complied	Executive Officer at Taluka Panchayat
28	<b>Rule 11</b> Duties of the Secretary-in-charge, Urban Development in the States and Union territories.-	Monitoring through SLAB is taking place on periodic basis.	100%	Nil	Complied	

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 Commissioner  
 Rural Drinking Water and  
 Sanitation Department

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**Rural Drinking Water and Sanitation Department**  
**Proposed activity as per SWM Rules 2016 with time lines for achieving**

Sl. No.	Proposed activity as per SWM Rules 2016	Time frame for achieving
1	Identification of suitable sites for setting up solid waste processing facilities	Out of 6021 GPs 2336 GPs have identified suitable land. Remaining will be complied by March-2022
2	Identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand-alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more.	NA
3	Procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities	March-2022
4	Enforcing waste generators to practice segregation of biodegradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source,	Out of 6021 GPs 114 GPs are practicing source segregation. Rest will be complied by March-

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		2022.
5	Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.	Out of 6021 GPs 191 GPs are processing waste. Rest will be complied by March-2022.
6	Ensure separate storage, collection, and transportation of construction and demolition wastes	NA
7	Setting up solid waste processing facilities by all local bodies having 100000 or more population	NA
8	Setting up solid waste processing facilities by local bodies and census towns below 100000 population.	March-2022
9	Setting up common or stand-alone sanitary landfills by or for all local bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules	NA
10	Setting up common or regional sanitary landfills by all local bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules	NA
11	Bio-remediation or capping of old and abandoned dump sites	NA

N/A

## Compliance to C &amp; D Waste Management Rules 2016

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Sl. No	NGT Order dated:12.09.2019 & 07.01.2020	Implementation status				
1	2	3				
		Current Status (Compliance as on till date)	Desirable Level of Compliance in terms of statutes	Gap Between current status and desired levels	Proposal of attending the gap with time lines	Name and designation of designated officer for ensuring compliance to provisions under statute (Commissioner/ Director) with Mobile No.
Compliance to Construction & Demolition Waste Management Rules-2016		<p><b>1. Site for Store, Process &amp; Dispose the C &amp; D waste</b></p> <p>Instructions have been given to all ULBs to earmark portion of land in available SWM processing site for storage of C&amp;D waste.</p> <p>Provision has been made in DPRs to provide adequate vehicles for collection and transportation of C&amp;D waste.</p> <p>HDMC, Kalaburgi, Mysore, Mangalore Cities have earmarked land for establishing C&amp;D waste processing plants.</p>	100%	95	Dec-2021	<p>All PDs of DUDC</p> <p>Sri. Vishwanath Chief Engineer (SWM) BBMP Cell No.+91- 9480684268</p>

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		<p><b>2. C &amp; D Waste Processing Capacity:</b></p> <p>It is estimated that Karnataka state is producing approximately 1100 TPD of C&amp;D waste. Two processing plants at Bengaluru (1,000 TPD) &amp; Hubli(50 TPD) are setup.</p> <p>One more plant of capacity 750 TPD is proposed in Kannur Village, Bidarhalli Hobli, Bengaluru(East) Taluka and work is under progress.</p> <p><b>3. C &amp; D Waste Processed:</b></p> <p>11,029 Tonnes of C&amp;D waste is processed in Chikkajala plant in Bengaluru from 01-04-2019 to 31-12-2019</p>				
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## Annexure R3-A Status of Implementation of SWM Rules, 2016

ANNEXURE-R3

Sl. No.	Thematic area	Current Status	Desirable level	Gap between current status and desired levels	Time lines for attending gaps	Name and designation of the Designated Officer for ensuring compliance
1	Enforce these rules in their State through local bodies in their respective jurisdiction and review implementation of these rules at least twice a year in close coordination with concerned Directorate of Municipal Administration or Secretary-in-charge of State Urban Development Department	Review meetings are held with Urban Development Department and Director of Municipal Administration, Government of Karnataka regarding implementation of MSW Rules, 2016. Review meeting held on 01.07.2019 and following directions were issued. 1. Department of Urban Development and Department of Rural Development and Panchayathraj shall take immediate action to publish the state policy on Solid Waste Management as required under the Rules. 2. The Department of Municipal Administration and BBMP shall submit the Annual report to the State Board including the best practices followed by local bodies within 7 days. 3. The time limit stipulated for management of Solid Waste under the Rules are not complied by the local bodies. Hence, Director of Municipal Administration and BBMP shall initiate action on war footing. 4. All the Solid Waste Transportation vehicles shall be fitted with GPRS. 5. Efforts should be made for complete segregation of waste at the source, not to mix segregated waste with the un-segregated waste. And also the facilities available for processing of waste shall be completely utilized.	100%	50%	31.03.2020	Sri Natesh Environmental Officer, Waste Management Cell
2	Monitor environmental standards and adherence to conditions as specified under the Schedule I and Schedule II for waste processing and disposal sites.	Regular inspections of MSW sites are carried out by Regional Officers and monitoring is carried out wherever required.	100%	50%	30.06.2020	
3	Examine the proposal for authorisation and make such inquiries as deemed fit, after the receipt of the application for the same in Form I from the local body or any other agency authorised by the local body;	After the receipt of application, the facilities are inspected by the Regional officers.	100%	Nil	Complied	

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4	While examining the proposal for authorisation, the requirement of consents under respective enactments and views of other agencies like the State Urban Development Department, the Town and Country Planning Department, District Planning Committee or Metropolitan Area Planning Committee, as may be applicable, Airport or Airbase Authority, the Ground Water Board, Railways, power distribution companies, highway department and other relevant agencies shall be taken into consideration and they shall be given four weeks time to give their views, if any	Board has formed a Committee for disposal of the authorization applications. The Committee consisting of all the agencies indicated under this Rule. Concurrence of the Committee members will be taken for disposal of application. 19 No. of authorization have been issued under SWM Rules for processing facility in Karnataka from April 2019 and December 2019.	100%	Nil	Complied	
5	Issue authorisation within a period of sixty days in Form II to the local body or an operator of a facility or any other agency authorised by local body stipulating compliance criteria and environmental standards as specified in Schedules I and II including other conditions, as may be necessary;	Authorization is issued within the time frame and stipulating compliance criteria and environmental standards as specified in Schedules I and II including other conditions, as may be necessary	100%	Nil	Complied	
6	Synchronise the validity of said authorisation with the validity of the consents	the validity of the consent and authorisation are synchronised	100%	Nil	Complied	

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7	Suspend or cancel the authorization issued under clause (a) any time, if the local body or operator of the facility fails to operate the facility as per the conditions stipulated: provided that no such authorization shall be suspended or cancelled without giving notice to the local body or operator, as the case may be;	Authorization is cancelled / suspended after following due procedure as per rules.	100%	Nil	Complied	
8	On receipt of application for renewal, renew the authorisation for next five years, after examining every application on merit and subject to the condition that the operator of the facility has fulfilled all the provisions of the rules, standards or conditions specified in the authorisation, consents or environment clearance.	Board has formed a committee for disposal of the authorization applications. The committee consisting of all the agencies indicated under this Rule 16(1)(d). Based on the deliberations and recommendations of the committee, action is initiated to dispose the authorization applications	100%	75%	30.06.2020	
9	The State Pollution Control Board or Pollution Control Committee shall, after giving reasonable opportunity of being heard to the applicant and for reasons thereof to be recorded in writing, refuse to grant or renew an authorisation	Procedure is being followed.	100%	Nil	Complied	
10	In case of new technologies, where no standards have been prescribed by the Central Pollution Control Board, State Pollution Control Board or Pollution Control Committee, as the case may be, shall approach Central Pollution Control Board for getting standards specified.	whenever the local body approaches the Board with new technologies for Management of Solid Waste, CPCB will be approached for getting standards specified.	100%	Nil	Complied	

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11	The State Pollution Control Board or the Pollution Control Committee, as the case may be, shall monitor the compliance of the standards as prescribed or laid down and treatment technology as approved and the conditions stipulated in the authorisation and the standards specified in Schedules I and II under these rules as and when deemed appropriate but not less than once in a year.	Regional Officers of KSPCB regularly inspect and monitor the compliance standards of the MSW sites as per Schedules I and II.	100%	Nil	Complied	
12	The State Pollution Control Board or the Pollution Control Committee may give directions to local bodies for safe handling and disposal of domestic hazardous waste deposited by the waste generators at hazardous waste deposition facilities.	KSPCB had issued directions under section 5 of the Environment (Protection) Act, 1986 on 14-12-2017 to Director of Municipal Administration to establish waste depositing centres for domestic hazardous waste and to ensure transportation to the Hazardous waste disposal facility.	100%	Nil	Complied	
13	The State Pollution Control Board or the Pollution Control Committee shall regulate Inter-State movement of waste.	There is issues regarding illegal interstate transportation of waste from Kerala State. The issue has taken up with CPCB and also Kerala State Pollution Control Board. In addition FIR has been registered in the local police station against the transporter of waste.	100%	25%	31.03.2021	
14	Each State Pollution Control Board or Pollution Control Committee as the case may be, shall prepare and submit the consolidated annual report to the Central Pollution Control Board and Ministry of Urban Development on the implementation of these rules and action taken against non-complying local body by the 31st day of July of each year in Form-V.	After receipt of the annual report of each local bodies of the state from DMA and BBMP, the data is compiled and annual report is submitted by KSPCB to CPCB within the time frame. Annual report for the year 2018-19 is submitted on 20-07-2019 to CPCB.	100%	Nil	Complied	

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Annexure R3-B on Compliance to Bio-Medical Waste Management Rules 2016

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Sl. No.	Thematic area	Current Status	Desirable level	Gap between current status and desired levels	Time lines for attending gaps	Name and designation of the Designated Officer for ensuring compliance
1	Why inventory on numbers of Healthcare Facilities is still incomplete in state/UT, as required under BMWM Rules, 2016?	Inventory of HCFs is a continuous process & is completed and being updated as on date. Annual Report is prepared based on the inventorization details submitted by Regional Offices of the Board. While registering the HCFs under Karnataka Private Medical Establishment Act, 2007, the Health Department insists for valid authorization issued by KSPCB under BMW Rules, 2016. As on 31.03.2019, 35869 number of HCFs have been covered by the Board.	100%	25%	31.12.2020	Sri Natesh Environmental Officer, Waste Management Cell
2	What is the reason that inventory is still under process?	Every year new HCEs are being established in the State. Hence, inventory is a continuous process. However, the Regional Officers of the Board are instructed to update the list of HCEs with the District Health Officers.	100%	25%	31.12.2020	

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3	As observed that non-bedded HCFs have not applied for authorization, why such HCFs are allowed to operate without authorisation under BMWM Rules, 2016?	Prior to 2016, clinics with less than 1000 patients per month were not required to obtain authorization. After 2016, the KSPCB has started covering all the HCFs and issuing authorization.	100%	25%	31.12.2020	
4	How many applications are still under process with State Boards for grant of authorisation?	42 as on 31.03.2019	100%	1.68%	30.06.2019	
5	In case of no Common Bio Medical Waste Treatment Facility in Arunachal Pradesh, Andaman & Nicobar, Goa, Lakshadweep, Mizoram, and Nagaland & Sikkim State/ UT for setting up CBMWTF?	Not Applicable				
6	Why still there is no proposal submitted by Arunachal Pradesh, Andaman Nicobar, Goa, Lakshadweep, Mizoram, and Nagaland & Sikkim State/UT for setting up CBMWTF?	Not Applicable				

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7	Why Barcode system is not implemented in Andaman Nicobar, Arunachal Pradesh, Assam, J& K, Lakshadweep, Mizoram, Orrisa, Puducherry, Sikkim, Uttar Pradesh, West Bengal, Chandigarh, Delhi, Jhaerkhand, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu, so far even when the deadline is over as per BMWM Rules, 2016?	Not Applicable				
8	Whether State/ UT has constituted State Advisory Committee so as to review the implementation status?	Yes	100%	100%	100%	

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9	What step have been taken by Advisory Committee so as ensure implementation of BMWM Rules, 2016?	The State Advisory Committee was formed in 04.08. 2016 and the last meeting was held on 10.04.2019. Later the Committee was amended on 14.10.2019. Understanding the inability of the Healthcare Facilities to make payment to the service of the CBMWTF, Rs. 73.86 Lakh was released and distributed to 42 Healthcare Facilities to clear the pending payments. Then separate Budget for BMWM was proposed in PIP-2020-21. Only the running cost was approved which is yet to be released. Similarly Proposal for formation of State Programme Management Unit & for implementation of BMW Rules 2016 is proposed to the State Government. OM has been issued nominating Nodal Officers in all Districts to review & monitor BMWM.	100%	75%	31.03.2021. The implementation of BMWM is mostly through ARS & UT Funds. Since there is no separate Team at the State Level (State Programme Management Unit) & District Level for implementation & Monitoring of BMW. Also there is no separate budget available for BMWM. Once the budget is released (proposal already submitted to GoK) compliance would be achieved.	Dr. Vivek Dorai- Deputy Director-BMWM/ Medical-2, Department of Health & Family Welfare, GoK.
10	How many HCFs other than hospitals, nursing homes etc. Such as veterinary hospitals, animal houses, Ayush hospitals have been monitored?	3078 Veterinary, 29 Animal Houses and 1708 numbers of Ayush hospitals have been covered by KSPCB. Letter has been addressed by KSPCB to the Department of Animal Husbandry to comply with BMW Rules, 2016.	100%	25%	31.12.2020	

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11	What is the frequency for conducting training or capacity building programmes for State Board Officials and for staff of HCFs?	842 trainings were organised by CBMWTF operators for HCFs during 2018-19. All Technical Officers of the Board are well trained in BMW Rules, 2016.	100%	25%	31.12.2020	
12	What is the status of installation of Continuous Online Emission Monitoring System with CBMWTFs? What follow-up action has been taken by State Boards?	25 CBMWTFs have installed Continuous Online Emission Monitoring System	100%	Nil	Complied	
13	How OCEMS data received by State Boards is being validated?	Manual stack monitoring will be undertaken and OCEMS data will be validated.	100%	50%	31.12.2020	
14	What is the status of compliance to BMW Rules, 2016 by CBMWTFs? What action has been taken against defaulting facilities?	OCEMS have been installed in case of 25 CBMWTFs and connected to the CPCB server & 1 unit is yet to connect. Most of the CBMWTFs have adopted GPS system to track the movement of the vehicle transporting Biomedical waste. Board is carrying out third party audit of CBMWTF functioning through third party. Based on the findings action will be initiated against CBMWTF.	100%	4%	30.06.2020	

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15	What is the frequency of monitoring of Healthcare Facilities for verification of compliance to BMW Rules?	CPCB has stipulated frequency for monitoring of Red, Orange & Green category organisation. Same is being followed for HCFs also. Due to shortage of staff, large category units are being inspected once in a year.	100%	75%	31.12.2021	
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Annexure R3-C on Implementation of C & D Waste Management Rules, 2016 by KSPCB

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Sl. No.	Thematic area	Current Status	Desirable level	Gap between current status and desired levels	Time lines for attending gaps	Name and designation of the Designated Officer for ensuring compliance
1	Identification of Site for collection & processing facility	BBMP has proposed another facility with M/s Rock Crystals has proposed to establish 750 MTPD plant in BBMP land located in Kannur village, Bangalore to process C&D waste. Sites for C& D wastes have been identified at Shivalli (50TPD) Hubli – Dharwad, at Vantamuri, Srinagar Belagavi, Mangalore, Mysore and Kalburgi.	100%(One C & D Facility in each District)	80	Action taken by KSPCB is enclosed as ANNEXURE. (Time line as given by UDD is December 2021)	Sri. Narayanaswamy S T, Deputy Environmental Officer
2	Commissioning & implementation of facility	M/s. Rock Crystals has established 1000 TPD C and D processing facility at Chikkajala, Bangalore	100%(One C & D Facility in each District)	96.7	31.12.2021 (as given by UDD)	
3	Formulation of policy by State Government	Draft policy is finalized by UDD, Govt. of Karnataka	100%	20%	31.03.2020	

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## Implementation of C & D Waste Management Rules, 2016 by KSPCB.

- (A) Board on 18.10.2016 had requested Secretary, Department of Ecology & Environment to convene a meeting of all concerned departments regarding implementation the C & D Waste Management Rules, 2016
- (B) Additional Chief Secretary, Forest, Ecology & Environment has convened a meeting on 06.12.2016. The meeting was attended by Urban Development, P.W.D, B.B.M.P, Revenue, and RDPR. During the meeting following issues discussed;
1. Formulation of policy by State Government
  2. Identification of Site for collection & processing facility
  3. Commissioning & implementation of facility
  4. Monitoring by SPCB's
- (C) KSPCB has issued directions under Section (5) of the Environment (Protection) Act, 1986 read with Rule 4 & 6 of C & D Waste Management Rules, 2016 on 05.05.2017 to Lake Authority Development, BDA, BBMP and Karnataka Rural development department , PWD, CPWD, BMRCL regarding implementation of the provisions of the C & D Waste Management Rules, 2016
- (D) Directions under Section 5 of Environment (Protection) Act was issued on 10.05.2017 directing BBMP not to dump C & D & Solid Waste in the catchment area and also within Bellandur Lake.
- (E) Review meeting regarding implementation of the C & D Waste Management Rules, 2016 was held with BMRCL, BDA, Karnataka PWD, CPWD, KREDAI, DMA, N.H. (CPCB representative was also present) on 20.11.2017 proceedings communicated on 02.02.2018.
- (F) Letter addressed to Urban development Department on 24.2.2018 to prepare policy document as required under C & D Waste Management Rules.

### C & D Facilities

**Existing facility** -M/s. Rock Crystals located at Chikkajala Bangalore of capacity 1000 TPD for which KSPCB has given authorization and it is operating.

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### **Proposed facility**

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Agreement is being signed by Bruhat Bengaluru Mahanagara Palike (BBMP) with M/s. Rock Crystals to establish 750 MTPD plant in BBMP land located in Kannur village, Bangalore to process C&D waste. Sites for C&D wastes have been identified at Shivalli (50TPD) Hubli – Dharwad, at Vantamuri, Srinagar Belagavi, Mangalore, Mysore and Kalburgi.

Conditions stipulated in CFE

While issuing CFE to Construction Project Condition regarding C & D Waste Management is being incorporated.

(A) Annual Returns as required under the C & D Waste Management Rules, 2016

None of the Local Bodies have filed Annual returns submitted to CPCB on 23.07.2019.

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**Annexure R3-D on Compliance of Hazardous & Other Waste (Management and Transboundary Movement) Rules, 2016**

1. All the Chief Secretary of the all States/Uts have to provide compliance status report on implementation of recommendations made by Monitoring Committee in its interim report as well as final report to monitor of provisions of Hazardous & Other Waste (Management and Transboundary Movement) Rules, 2016 in compliance with Hon'ble Tribunals orders dated 12.04.2019 and 26.08.2019 in O.A. No. 804/2017 in the matter of Rajiv Narayan & Anr. Vs. Union of India & Ors. (copies of Hon'ble NGT orders enclosed), as per the following format;

Sl.No.	Directions of Hon'ble Tribunal in O.A. No.804/2017	Action plan along with time line for implementation of orders of Hon'ble Tribunal	Current Status of implementation	Gaps indentified for implementing the directions of Hon'ble Tribunal	Details of state level committee constituted for the purpose of compliance of Howm rules, 2016
1	Vide orders dated 12.04.2019 Hon'ble NGT directed that "Having regard to the sensitiveness of the issue and impact of noncompliance on environment and public health, the above recommendations need to be fully implemented and monitored by the chief Secretaries at State Level.	The status of contaminated sites/probable contaminated sites is enclosed as Annexure-I. The remediation of the contaminated site in the premises of M/s Federal Mogul is under progress. For the Peenya Industrial Area, NGRI has conducted the study.	10%	90%	At present for supervision of hazardous waste management projects, a Steering Committee is constituted by the Govt. vide order No. FEE 146 ENV 2008, dt. 08.09.2014. The same Committee is being entrusted with the responsibility of supervision of action taken regarding the recommendations of the Monitoring Committee of CPCB and the directions of this Hon'ble Tribunal.
		Inventorisation of hazardous and other wastes	100%	Nil( prepared and submitted to CPCB for period ending 31.3.2019) On going process	Complied
		Grant and renewal of authorisation	100%	Nil	Complied

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	Examining the applications for imports submitted by the importers and forwarding the same to Ministry of Environment, Forest and Climate Change	100%	Nil	Complied
	Uniform format for visits and inspections of HW handling facilities is necessary to ensure comprehensive inspections as per the provisions of the Rules.	100%	Nil	Complied
	The authorization document should clearly stipulate respective mode of management (such as common or captive incineration / secured landfilling or pre-processing or recycling or utilization or export or captive storage, as applicable) for each category of HW being generated.	100%	Nil	Complied
	SPCBs/PCCs shall conduct environmental audit including the site selection criteria, design and layout for the TSDFs in next one year. They can engage expert institutes for the purpose and seek CPCB's technical advice on the ToR of the study, if required.	100%	Nil	Complied
	All the Common SLF shall disclose the mandatory amount deposited in Escrow Account annually to SPCB/PCC, CPCB and display on their website. SPCB/PCC to take action in case of non-compliance	100%	Nil	Complied
	Capacity building of Officers ( All the technical officers have giving training in implementation of Rules)	100%	50%.All the Technical Staff will be specially trained in the field by 31.12.2020	31.12.2020

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2	Vide orders dated 26.08.2019 Hon'ble NGT directed that All the Chief Secretaries of the States/Uts may be directed to submit biannually compliance report to CPCB by collecting information from the State Government/Departments like Labour/Industries/Environment and SPCBs/PCCs.	Forest, Ecology & Environment Department	100%		Will be collected and submitted to CPCB.
3	Vide orders dated 26.08.2019 Hon'ble NGT has directed the Chief Secretaries of States to ensure effective and urgent implementation of the provisions of the rules as stipulated under Rule 5(2) of HOWM Rules, 2016 by the labour department.	Health Department	100%		KSPCB has addressed letter to ACS and Principal Secretary, Department of Forest, Environment and Ecology, to ensure effective implementation of Rules on 20.06.2019. Letter has been addressed by KSPCB to Dept. of Labour.

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\* Please provide, Name and designation of designated officers for ensuring compliance to provisions of Hazardous & Other Waste (Management and Transboundary Movement) Rules, 2016.

Details of contaminated /probable contaminated sites of Karnataka

Annexure R3-D on Status of Contaminated Sites

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Site ID	Site Name and Address	GPS Coordinates	Land Use	Name of the Polluter (s)	Chemical of concern (CoCs)	Status report submitted before Hon'ble NGT CS/PCS	Action Taken	Action proposed
A-560-5	Peenya Industrial Area, IIIrd Phase, Bengaluru - 560 058	13.035 77.5226	Industrial	Not Known	Zinc, Chromium, Lead	PCS	The GPS reading falls inside an industry by name M/s Biyar Rubbers Pvt Ltd., Plot No. 212,-3rd Phase, Peenya Industrial Area, Bangalore. This is a Orange category industry engaged in manufacture of Tyre retreading material. The main raw material used are Natural rubber, Synthetic rubber, Carbon black, Rubber processing oil and chemicals. The industry is not using any raw materials which generates zinc, chromium or lead as waste. There is no contamination at the said site. However, outside the said industry, at a distance of about 50 m, in the 1st Main Road, mixed solid waste (mostly construction & demolition waste, domestic garbage, industrial garbage & other wastes) of about 50-100 Tons has been dumped all along the road in a stretch of about 200 m. A letter is addressed to the BBMP to clear the solid waste dumped at the said site. Board will regularly inspect the site.	It is recommended to delete this site from the list of probable contaminated site.
A-560-7	Peenya Industrial Estate, IIIrd Stage, Bengaluru - 560 058	13.0195 77.4984	Industrial	Not Known	Lead, Zinc, Copper, Cadmium, Hexavalent, Chromium,	PCS	As per the GPS readings, the location falls behind M/s. Sain Coating Pvt. Ltd., Shed No. A-25 & 26, III Stage, PIE, Bengaluru (West side). The said industry is engaged in powder coating with pre-treatment activity. The effluent is being disposed to CETP and records submitted. The other industries surrounding the said location are as follows; East side - 2M Engineering & Sri Ramakrishna Dairy (Green category industries). North side - Service road followed by Main Road South side - Main Road. There is no contamination found at the said location and there are no industries in the surrounding area using raw materials of Contaminants of Concern (CoCs).	It is recommended to delete this site from the list of probable contaminated site.
A-560-	Peenya Industrial Area, Bengaluru - 560 058	13.0255 77.525	Industrial, Habitation settlement	Peenya Industrial area, Bangalore	Zinc, Chromium, Lead	CS	As per the GPS readings, the location falls behind M/s. Paragon Polymer Products Pvt. Ltd., Shed No. B-69, 2nd Cross, Ist Stage, PIE, Bengaluru (Green category) (East side). The other industries surrounding the said location are as follows; West side - M/s. Future Technologies, M/s. AS Tech & M/s. Innovative Engg Equipments (All Green category units). South side - Main Road North side - Main Road. There is no contamination found at the said location and there are no industries in the surrounding area using raw materials of Contaminants of Concern (CoCs).	It is recommended to delete this site from the list of contaminated site.
A-560-8	Peenya Industrial Area, Ist Phase, Bengaluru - 560 058	13.0384 77.5261	Industrial	Peenya Industrial area, Bangalore	Lead, Zinc, Copper, Cadmium, Hexavalent, Chromium,	PCS	As per the GPS readings, M/s. Triveni Engineering industry (Green Category unit carrying out engineering activity) is existing and the borewell water sample analysis indicates that Lead, Zinc, Copper, Cadmium, Hexavalent Chromium, Chromium, Nickel are with in the standards.	It is recommended to delete this site from the list of probable contaminated site.
A-560-city	Goripalya near Mysore Road, Bangalore, Karnataka E-waste recycling in Bangalore	12.9641 77.5566	Habitation settlement	Informal E-Waste recycling units	Cadmium, Lead, Mercury, Zinc, Chromium, Arsenic, Copper	CS	Earlier municipal solid waste was dumped in the open space. BBMP authorities have cleared the waste and sent solid waste to their solid waste landfill site for further treatment and disposal. At present there is no dumping of solid waste. Hence, no further action is required.	It is recommended to delete this site from the list of contaminated site.
A-560-city	Lalbagh Lake, Bangalore, Karnataka - 560 004.	12.945 77.585	Water Boadis	BBMP, BDA, PWD, MI, CMC and Panchayath, Tourism Dept.	Lead	PCS	The lake is located within Lalbagh garden and there is no industries closed by, a part of the sewage generated from Jayanagar 2nd block residential area was entering into the lake due to the leakage of manhole provided to the sewer line which is passing adjacent to the lake. BWSSB authorities have replaced and reconstructed manhole and diverted all the sewage into their sewer network. Now, there is no entry of any sewage into the lake. Board is monitoring the lake regularly. The analysis reports for the last 4 years reveals that there is no presence of lead in the lake water except during the year 2018 i.e., 0.001 mg/l (copy of the the compiled result data sheet is herewith enclosed for reference). Hence, no further action is required	It is recommended to delete this site from the list of probable contaminated site.

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7	KA-560-14	Federal Moghul Ltd., Doddaballapur Road, Yelahanka, Banglore - 560 064.	12.9965	77.6109	Industrial	Escort Group	Chromium VI, Chromium Total	PCS	<p>The Escorts Group is one of the Indian Automotive components manufacturing companies which were operating in Yelahanka, Bengaluru since 1977 involving in the manufacturing of automotive components such as Piston, Piston Rings and Pins. The Chrome plating is one of the process involved in the manufacturing of the Piston Rings. The Escorts group was storing used spent chromic acid in an RCC lined underground tank, which generates from the Chrome plating operation. As, chromic acid is corrosive and highly acidic in nature, the underground RCC tank which was used for storing of used spent chromic acid started leaking and slowly caused underground water contamination in and around the industry. The Escorts Group had sold the above said manufacturing unit to Federal Mogul Goetze India Ltd, in the year 2016. Subsequently, The Board noticed ground water contamination in few wells in and around the industry and imposed strict direction on the company for Ground water Remediation. The Federal Mogul has implemented effective ground water remediation program by the involving American based consultants. Federal Mogul also involved National Geo-physical Research Institute(NGRI) as per the direction of Karnataka State Pollution Control Board for ground water modelling to understand the extent of contamination and the year from which the ground water contamination started. The ground water in and around the industry was jointly monitored by Federal Mogul, University of Agricultural Sciences, Bangalore since 2010 and many recommendations were given both by the NGRI and University of Agricultural sciences towards the remediation. The quality of ground water was monitored on quarterly basis and now it is monitored at six monthly intervals. Based on various scientific studies conducted by Federal Mogul and as per the advice of NGRI, Federal Mogul adopted United State Environmental Protection Agency (USEPA) approved remediation process such as Ex-situ and In-situ treatment. The Ex-situ treatment is the remediation methodology where the ground water is being pumped out /extracted from the ground to create hydraulic capture/ avoid off-site migration and treated in a automated chrome water treatment plant followed by excavation of highly contaminated soil and off- site treatment at TSDF facility. Similarly, In-situ treatment is the injection of reductants directly in to the soil and ground water for treatment of Hexavalent chromium at the contaminated source itself. The Federal Mogul also shifted the old plating operation in order to facilitate the remediation activity to a new location where the scientific impervious floor lining is done to eliminate any possibilities of soil or ground water contamination in treatment. The Ground water remediation is still going on .</p>	Remediation action is under progress.
8		Hebbal Lake, Bangalore, Karnataka- 560024	13.0462	77.5858	Water bodies	Forest Department, Minor Irrigation Department, Horticulture Department, Public Works Department(PWD), Bangalore Mahanagara Palike(BBMP), Bangalore Development Authority(BDA), Tourism Department, City Municipal Councils and Panchayats.	Lead	PCS	<p>Hebbal Lake is located in the north of Bangalore and at the mouth of National Highway 7, at the junction of Bellary road and the outer ring road(ORR). It was one of the three lakes created in the year 1537 by Kempegowda, like most lakes or "tanks" in the Bangalore region it was formed by the damming natural valley systems by the construction of bunds. The catchment area of the lake includes the residential areas of Yeshwanthpur, Mathikere, Rajmahal Vilas Extension, Bharat Electronics Limited and Hindustan Machine Tools Limited colonies. In the late 1990s, an ecological experiment was conducted with the introduction of Neochetina. A project for lake restoration funded under the Indo-Norwegian Environment Programme led to major changes in the ecosystem beginning in 1998, two artificial islands were created using the soil from delisting under this project. In 2004, the LDA began a process of "public-private participation" where private companies bid for the lakes to "develop and maintain" them for the next 15years. The Hebbal, lake is leased for 15years to M/s. East India Hotels Ltd for maintenance. Specific Observations: 1. Hebbal Lake presently is in an extent of 116acres including park. The depth of the lake is 7feet. 2. All along the lake, a bund has been provided to prevent entry of sewage in to lake. 3. It was observed that the tank is maintained well and no sewage is entering into the tank. 4. Fish culture is being done in the lake by the department of fisheries. 5. M/s. East India Hotels Ltd., have developed and maintained the garden on the southern side of the lake. A path way is also provided for the walkers. 6. The tank is rain fed. 7. M/s. East India Hotels Ltd has provided one sewage treatment plant on the western side of the lake. Whenever, water level in the lake comes down the sewage from the plant will be taken to the STP and treated sewage will be taken in to the lake to maintain the lake water level, mainly during summer. This office is conducting water quality monitoring every month. As per the analysis report, last one year the water quality status of this lake falls under "D" category which is fit for propagation of wild life and fisheries.</p>	It is recommended to delete this site from the list of probable contaminated site.

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A-560-0	Vrishabhavathi River	12.9442	77.5285	Water bodies	Not Known	Chromium	PCS	This KSPCB is regularly monitoring Vrishabhavathi Valley (Near Kalyani Motors- Nayandahalli as indicated in the GPS coordinates of Contaminated sites). Every month water sample are collected and analyzed at Board Central laboratory. There is no trace of Chromium in effluent sample and traces of Chromium found in sediment sample, the level of concentration is well below the limit prescribed for Hazardous ( $\geq 5000$ Mg/Ltrs) this may due to operation/ discharge of effluent from un organized Electroplating and textile industries operating in the upstream of sampling location in BBMP area. Board has banned the establishment of new Electroplating and surface treatment units within BBMP area since 2013. The analysis reports of the Sediment sample for the period from 2014 to 2017 is enclosed for kind reference. (Annexure _____)	It is recommended to delete this site from the list of probable contaminated site.
A-560-RR	Kengeri Tank, Bangalore, Karnataka-560060	12.9174	77.49	Water bodies	Forest Dept, Hort Dept, BDA,PWD, MI, CMC and Panchayath, Tourism Dept.	Cadmium	PCS	Water sample from Kengeri Tank was collected and analyzed at Board Central laboratory. There is traces of Cadmium in Tank water sample which is within the limits. the level of concentration is well below the limit prescribed for inland surface water (2 Mg/Ltrs). This may be due to usage of phosphate fertilizers (before the development of upstream area into residential), Sewage entry from the catchment area, degradation of Nickel Cadmium batteries, Coloured plastic (household use) in the dumpings of municipal solid waste. Presently tank is full of weeds and sewage, hence further sampling have been stopped.	Board has addressed letter to Chief Engineer BWSSB, Joint Commissioner BBMP and Commissioner/ Executive Engineer BDA to take preventive action by stopping discharge of sewage and sullage into the tank immediately and to divert the sewage and sullage into UGD networks of BWSSB for further treatment.
A-560-5	Maalipura Dumpsite, Yelahanka Karnataka 560 060.	13.1224	77.5378	waste land	Industrial and municipal dumping site	Total Cr, Tin, Silver, Zn, Mo, Cu, Cd, Pb, Arsenic, Hg, Hexavalent, Chromium,	CS	This is a solid waste processing facility, currently not in operation. There is large quantity of accumulated legacy waste at this site.	The Board has addressed letter to BBMP for management of legacy waste.
A-560-	Mangamnapalya Road, Mangamnapallya Village, Hosur Road, Bengaluru, Karnataka-560030	12.9029	77.632	Water bodies	Habitation, Settlement, Commercial and industrial	Lead	CS	The co-ordinates mentioned were verified and it pertains to Hosur Road, i.e., NH-7 (Chennai-Bengaluru Highway) and fly over road to Electronics City. The road and fly over is developed and is under use. However the sample collected from Mangamnapalya Lake reveals that the parameters are confirming to Class D standards.	It is recommended to delete this site from the list of contaminated site.
A-560-	Madiwala Lake, BTM 2nd Stage, Bengaluru, Karnataka-560076	12.5417	77.3649	Water bodies	Not Known	Lead	PCS	KSPCB is regularly monitoring water and sediment quality of Madiwala Lake. TAs per the Analysis report Lead concentration in lake water sample is BDL for the January 2020 but water quality shows class D. Sediment sample of lake having lead concentration 22.1 mg/Kg. The level of lead concentration in sediment are below the concentration limit of Hazardous ( $> 5000$ mg/Kg).	It is recommended to delete this site from the list of probable contaminated site.
A-560-	Bellandur Lake, Bellandur Village, Bengaluru, Karnataka -560103	12.927	77.668	Water bodies	Forest Dept, Hort Dept, BDA, BBMP, PWD, MI, CMC & Panchayath, Tourism Dept.	Cadmium	PCS	KSPCB is regularly monitoring water and sediment quality of Bellandur Lake. As per the Analysis report, there are no traces of Cadmium concentration in lake water sample but water quality shows class E. & sediment sample. The level of cadmium concentration in water shows class E Sediment sample of lake having lead concentration 16 mg/Kg. The level of cadmium concentration in sediment samples are below the concentration limit of Hazardous ( $> 50$ mg/Kg).	The Board has advised BDA to carry out detailed analysis of sludge to ascertain whether it is hazardous in nature.

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15	KA-560-4	Arekere Lake, Arekere Village, Bengaluru, Karnataka-560076	12.57	77.374	Water bodies	Forest Dept, Hort Dept, BDA, BBMP, PWD, MI, CMC & Panchayath, Tourism Dept.	Lead	PCS	KSPCB is regularly monitoring water quality of Arakere Lake. As per the Analysis report Lead concentration in lake water sample is BDL for the January 2020 but water quality shows class E. Sediment sample of lake having lead concentration 12 mg/Kg. The level of lead concentration in sediment are below the concentration limit of Hazardous (> 5000 mg/Kg).	It is recommended to delete this site from the list of probable contaminated site.
16	KA-560-1	Agara lake, Bangalore City, Karnataka-560102	12.5511	77.3834	Water bodies	Forest Dept, Hort Dept, BDA, BBMP, PWD, MI, CMC & Panchayath, Tourism Dept.	Lead	PCS	KSPCB is regularly monitoring water quality of Agara Lake. This lake is rejuvenated by Karnataka Lake Conservation and Development Authority. As per the analysis report of the lake water after rejuvenation lead concentration is BDL (Jan-2020). Sediment sample of lake having lead concentration 16 mg/kg. The level of lead concentration in water whose class D standards & sediment samples are below the concentration limit of Hazardous (>5000 mg/kg)	It is recommended to delete this site from the list of probable contaminated site.
17	KA-560-12	Begur Lake, Bedgur Road, Bengaluru, Karnataka-560068	12.5339	77.3713	Water bodies	Not Known	Chromium, Lead, Iron, Zinc, Nickel, Copper	PCS	KSPCB is regularly monitoring water quality of Begur Lake. As per the Analysis reports, the level of said parameters' concentration in water shows class D standards. Sediment sample of lake is having having metal concentration are below the permissible limit of Hazardous except for Zinc 20000 mg/ Kg, Chromium, copper, Lead and nickel -5000 mg/Kg. However, there is no Standard stipulated for Iron.	Samples at various points in the lake will be collected based on the analysis reports further action will be taken.
18	KA-581-	Dandeli, Karnataka-581325	15.238	74.6151	Water Bodies	West Coast Paper Mills Ltd.,	Dioxins	PCS	The GPS Co-ordinates is showing as Urdu School which is more than 1 Km Upstream of M/s. West Coast Paper Mills Ltd. However, the polluter is mentioned as M/s. West Coast Paper Mill Ltd. The industry was using elemental chlorine until 2009 and this activity might have possibly resulted in Bio-accumulation in the surrounding environment including Water, Soil, Sediments, Sludge, Flora and Fauna around the said industry for the presence of dioxin in an obnoxious level.	The analysis of dioxin will be carried out and based on the results further action will be taken.
19	KA-570-2	Metagalli Industrial Area, Mysore city, Karnataka, India - 570 016 (Mys Urban)	12.3601	76.6326	Industrial	Not Known	Not Known	PCS	Presently the site ID KA-570-2 is utilized by Geetha Sishushikshana Education Trust (Engineering College). As per the records, earlier in the said site M/s. Vasavi Soft drinks (P) Ltd., was in operation & engaged in manufacturing of bakers yeast activity. The unit was closed and new Engineering college has been established & operating at the said site	It is recommended to delete this site from the list of probable contaminated site.
20	KA-571-1	Cauvery River, Downstream,	12.14	76.6757	Water Bodies	Not Known	Lead, Cadmium,	CS	No such Contamination of lead has been observed and there are no industries/ activities engage in the discharge of lead into river Cauvery.	CMC Nanjangud has been informed to provide UGD
21	KA-570-3	Hebbal Industrial Area, Mysore city, Karnataka, India - 570 016 (Mys Urban)	12.3612	76.6008	Industrial	Not Known	Not Known	PCS	Site ID KA-570-3 is utilized by M/s. Infosys Limited (Software Company). As per the records, the site was earlier vacant under cultivation by farmers. No contamination is observed	It is recommended to delete this site from the list of probable contaminated site.
22	KA-570-4	Hootagalli Industrial Area, Mysore city, Karnataka India - 571 301	12.3537	76.5837	Industrial	Not Known	Not Known	PCS	There was an engineering industry namely Video Vision Technology with CNC machines drilling machines and sheet metal cutting machines, Now it is closed. It is not operating since 4-5 years. No contamination is recorded.	It is recommended to delete this site from the list of probable contaminated site.
23	KA-577-1	Davangere Harihara Taluk.	14.5114	75.8081	Mixed (Industrial and Habitation settlement)	Not Known	Fluoride	PCS	The area surrounded by residential activities. There are no any industrial activities in the said location. There was one municipal drain carrying the domestic sewage. The fluoride concentration may be due to natural phenomenon.	It is recommended to delete this site from the list of probable contaminated site.

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KA-572-	Tumkuru Amanikere Lake Watershed, Karnataka - dia- 2101	13.3533	77.1103	Water Bodies	Not Known	Not Known	PCS	The Amanikere was located in the midst of Tumkuru City. Bund was constructed at appropriate locations to check the entry of sewage into tank. There were no industries in the vicinity of tank. There was no discharge of effluent from industrial activity into the tank. 4. De-silting of tank was carried out by TUDA/City Corporation.5. The Tumkuru City is under Smart City Programme and action plan was prepared for improvement of overall city including tank and work of improvement is under progress. The entry of sewage into tank was plugged at many locations at periphery of tank. The plantation/garden was done at the periphery of tank. The tank was converted as a picnic spot. There were no slaughter houses near to the tank. Due to heavy rain in the area the tank was full of water. In emergency the water will be utilized by local body for supply of water to the city. Earlier the tank was reported as probable contaminated site and over a time the steps have been taken for protection tank by local body/TUDA. The tank will be monitored on regular basis.	It is recommended to delete this site from the list of probable contaminated site.
KA-582-1	Bidar, Karnataka (Vani Organics Pvt Ltd.)			Industrial	Effluent	Inorganic Salts	PCS	M/s. Vani Organics is industrial unit is engaged in manufacture of Bulk Drugs located in Kolhar Industrial Area, Bidar. Earlier they have solar evaporation pond for treating the trade effluent and same has been closed during the year 2015. The sludge from ponds has been handed over to the TSDF. At present, all the solar evaporation ponds are closed filled with soil and over that plantation have been developed. Factory authority have established MEE with ATFD & ZLD at the time of inspection they were in working condition. There is no contamination found at the said site.	It is recommended to delete this site from the list of probable contaminated site.

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Annexure R-3E

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**Annexure R3-E on seeking information w.r.t. Compliance to E-Waste Rules.**

In the present OA 512/2018 (Shailesh Singh Vs. State of Uttar Pradesh) filed before Hon'ble NGT, Principal Bench, N-Delhi the issue under consideration is management of e-Waste consistent with the E-waste (Management) Rules, 2016. The grievance in this application is against unauthorized recycling/collection/dismantling units, burning and selling of e-waste and unscientific disposal of e-waste in violation of the Rules causing contamination of ground water, air pollution and soil acidification.

In the compliance with the directions of the Hon'ble NGT, CPCB prepared an action plan for enforcement of E-Waste(M) Rules, 2016. The Stakeholders responsible for implementation of the said action plan included, CPCB, SPCBs/PCCs, Custom department, Ministry of commerce, Ministry of electronics & telecommunication & District Administration of all the States. CPCB has also written to the PS to Chief Secretaries for the compliance of the action plan and requested for submission of Action Taken Report (ATR). Only few State Governments (District Administration) have responded so far

CPCB may again write to all the Chief Secretaries seeking information w.r.t to compliance of E-Waste Rules in their respective States. The format for seeking information is as below:

Sl.No	Challenges Activities	Stake holder responsible for implementation	Action	Current Status	Desirable level of compliance in terms of statuses	Gap between current status & desired level	Proposal for attending the gap with timelines	Name, designation, contact number, of designated officer for ensuring compliance to the provisions under statute
a.	Checking of informal trading, dismantling and recycling of waste	SPCBs / PCCs/ District Administration	SPCBs/Pccs n coordination with District Administration has to carry out quarterly drive for checking of this activity.	There are 127 Nos of E-waste Dismantling, recycling and refurbishing units in the Karnataka, of which 71 units are in operation, 25 units have been closed and 22 units are Yet to Commission and 09 units are not working.	100%	75%	30.09.2020	Smt. K.R. Hemalatha Environmental Officer, Waste Management Cell
b.	Facilitate collection and disposal of e-waste	SPCBs / PCCs/ District Administration/CPCB	State Government to formulate mechanism for collection and for incentivizing setting up of recycling facilities.	State Government to formulate mechanism for many informal sectors, now converted to formal section. As per the E-waste Management Rules only Producer, PRO's, Processors of E-waste can open collection centers. In karnataka there are 66 Nos of collection center opened ( based on the information given by CPCB). Since Karnataka is having adequate number of E-waste processing units, there is no necessity of giving incentives to recycling units.	100%	0%	Complied	Smt. K.R. Hemalatha Environmental Officer, Waste Management Cell

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c.	Governance frame work for monitoring compliance	SPCBs / PCCs/ District Administration/CPCB	Monitoring to be ensured at city/district and state levels for which nodal officers (State Environmental Secretary, District Collector, CMD/ Commissioners) to be designated. Time frame - Three (3) months.		100%	100%	30.06.2020	Sri Venkateshan, Special Director
d.	Capacity building at district/State/CPCB level	SPCBs / PCCs/ District Administration/CPCB	Special workshops to educate functionaries in Government / NGOs be run over one year	The KSPCB will request the State Government on the matter	100%	Few Awareness programs have been held	31.12.2020	Smt. K.R. Hemalatha Environmental Officer, Waste Management Cell
e.	IEC plan be firmed up and executed	SPCBs / PCCs/ District Administration/CPCB	State Government to firm up IEC plan for educating public at large about the system of collection, incentive structure and facilities for recycling. Time frame - Three (3) months. The IEC plan to be executed over on year.	The KSPCB will request the State Government on the matter.	100%	100%	30.06.2020	SEO, Awareness Cell, KSPCB
f.	Strengthen system of enforcement	SPCBs/PCCs/ District Administration CPCB	quarterly review of violation and enforcement actions at City/District/State level and quarterly reports to be filed with CPCB.	District level Committees to monitor OA No. 606 will be asked to monitor implementation. However, KSPCB is regularly monitoring	100%	0%	Complied	

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## Annexure R3-F on Compliance to 351 Polluted River Stretches in the Country (Karnataka)

SI No	Thematic area	Current Status	Desirable level as per status	Gap between current Status and desired levels	Time frame for addressing the Gap	Name, designation, contact number, of designated officer for ensuring compliance to the provisions under statute
1	351 Polluted River stretches	Construction of Under Ground Drainage (UGD) system & installation of Sewage treatment plants (STP's) to treat the sewage from 17 identified Polluted River stretches in Karnataka State (35% of sewage generated is being treated )	100%	65%	31.3.2021	Urban Development Department , GoK

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Annexure - R-3G

## Annexure R3-G for 122 Non-attainment cities

Sl. No.	Thematic area	Current Status	Desirable level	Gap between current status and desired levels	Time lines for attending gaps	Name and designation of the Designated Officer for ensuring compliance
1	122 Non-attainment cities	There are 4 non-attainment cities in the Karnataka State	100%			Dr. A. Ramesh Chief Environmental Officer
		a) Action plan for Bengaluru City - 44 action points (approved during 29th September 2019 by CPCB) around <b>28.4 % reduction</b> in PM 10 & PM 2.5 concentration (Annual average values for the year 2014-15 are compared to the values for the year 2018-19)		a) 71.6 % for Bengaluru City.	31.12.2022	
		b) Action plan for Davangere City -27 action points (approved during 25th June 2019 by CPCB) around <b>16.94 % reduction</b> in PM 10 & PM 2.5 concentration (Annual average values for the year 2014-15 are compared to the values for the year 2018-19)		b) 83.06 % for Davangere City.	31.03.2022	
		c) Action plan for Hubli-Dharwad City - 27 action points (approved during 25th June 2019 by CPCB) around <b>13 % reduction</b> in PM 10 & PM 2.5 concentration (Annual average values for the year 2014-15 are compared to the values for the year 2018-19)		c) 87 % for Hubli-Dharwad City.	31.03.2022	
		d) Action plan for Kalaburgi City -27 action points ( approved during 25th June 2019 by CPCB) around <b>35 % reduction</b> in PM 10 & PM 2.5 concentration (Annual average values for the year 2014-15 are compared to the values for the year 2018-19)		d) 65 % for Kalaburgi City.	31.03.2022	

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Annexure - R-3H

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Annexure R3-H for 100 Industrial cluster

Sl. No.	Thematic area	Current Status	Desirable level	Gap between current status and desired levels	Time lines for attending gaps	Name and designation of the Designated Officer for ensuring compliance
1	100 industrial cluster	6 Industrial clusters in Karnataka				Sri . M. N.Yoganand, Environmental Officer, 17 Category
		o Action plan/Revised Action Plan prepared and submitted to CPCB				
		Bikampadi Industrial Area, Mangaluru ( achieved 35.05% of Revised action plan )	100%	64.95%	31.3.2024	
		Raichur Growth Center (achieved 61.54 % of Revised action plan)	100%	38.46%	30.6.2022	
		Shimoga (achieved 23.08 % of Revised action plan)	100%	76.92%	31.12.2020	
		Kolhar Industrial Area Bidar ( achieved 23.08% of action plan)	100%	76.92%	31.12.2025	
		Peenya I industrial area (achieved 7.14% of action plan)	100%	92.86%	31.12.2021	
Jigani Bommassandra industrial (achieved 14.28 % of action plan)	100%	85.72%	30.6.2022			

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Annexure — R2-I

## STATUS OF SEWAGE TREATMENT PLANTS (STPS) & REUSE OF TREATED SEWAGE

### A. STATUS OF SEWAGE TREATMENT PLANTS (STPS)

#### a) BENGALURU

1 Bruhat Bengaluru MahanagaraPalike (BBMP) comprises of 800 SqKms and consists of 245 Sq. Kms. of core area, 330 SqKms of erstwhile CMC/ TMC and 225 SqKms of 110 Villages. The population of Bengaluru BBMP area is projected to double i.e., from 10.08 Million in 2016 to 20.96 Million by 2050. Bangalore Water Supply and Sewerage Board (BWSSB) is supplying 1400 MLD of water from River Cauvery. It is estimated that about 400 MLD water is utilized from ground water (public + private). Total water utilized is 1800 MLD, out of which 80% i.e., 1440 MLD will become used water which will constantly increase with the growth of the city. Details of existing used water treatment plants in Bengaluru and utilization of treated water is mentioned below:

There are 25 STPs of installed capacity 1067.5 KLD has been installed and 711.4 KLD is being treated. 11 STPs of 520 KLD is under construction and 12 STPs of capacity 120 MLD is proposed to be commissioned between 20-21 to 23-24

#### b) OTHER THAN BENGALURU

There are 274 Urban Local Bodies in Karnataka, out of which 27 are AMRUT towns and 247 are non-AMRUT towns in the State of Karnataka. Only 76 local bodies possess Sewage Treatment Plants (STPs) the remaining local bodies are in the process of establishing the STP's. Government of Karnataka has accorded approval for establishing these STPs.

District wise implementation of STP's in the urban local bodies have been provided in the table below:

TABLE-2

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**DETAIL OF EXISTING STPS – CITY WISE SUMMARY**

Sl No	Name of the town	Name of the District	Population as per census 2011	Designed capacity of Existing STP (in MLD)
1	Bagalkote	Bagalkote	111933	12.50
2	Guledgudda		33382	1.00
3	Jamkhandi		68938	11.20
4	Ilkal		60242	8.00
5	Badami		30943	2.00
6	Mudhol		52199	9.06
7	Bilagi		17792	3.00
8	Hunagund		20877	3.50
	<b>TOTAL</b>		<b>396306</b>	<b>50.26</b>
9	Bailhongal	Belagavi	49182	2.28
10	Chikkodi		38307	5.80
11	Sadalga		23790	14.00
12	Gokak		80650	8.70
	<b>TOTAL</b>		<b>191929</b>	<b>30.78</b>
13	Bellary	Bellary	410445	45.00
14	Hospet		206167	10.00
15	Hadagali		27967	4.27
	<b>TOTAL</b>		<b>644579</b>	<b>59.27</b>
16	Kanakapura	Bengaluru Rural	54014	6.29
17	Magadi		27605	3.70
18	Anekal		44260	6.40
19	Doddaballapura		93105	12.00
	<b>TOTAL</b>		<b>218984</b>	<b>28.39</b>
20	Kollegal	Chamarajanagar	57149	3.30
21	Gundlupet		28105	2.50
22	Chamarajanagar		69875	9.00
	<b>TOTAL</b>		<b>155129</b>	<b>14.80</b>
23	Chickmagalur	Chickmagalur	118401	6.50
24	Birur		22484	2.64
	<b>TOTAL</b>		<b>140885</b>	<b>9.14</b>
25	Chitradugra	Chitradugra	145853	20.00
	<b>TOTAL</b>		<b>145853</b>	<b>20.00</b>

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26	Harapanahalli	Davangere	47039	7.92
27	Davangere		434971	40.00
28	Harikara		434971	8.84
29	Honnali		17928	3.30
	<b>TOTAL</b>		<b>934909</b>	<b>60.06</b>
30	Mangalore	Dakshina Kannada	499487	85.50
31	Sullia		19958	2.00
	<b>TOTAL</b>		<b>519445</b>	<b>87.50</b>
32	Gadag-Betageri	Gadag	172612	15.89
	<b>TOTAL</b>		<b>172612</b>	<b>15.89</b>
33	Arsikere	Hassan	53216	3.00
34	Belur		22484	2.70
35	C.R Patna		40417	4.60
36	Hassan		155006	13.00
37	H. N Pura		29974	3.00
	<b>TOTAL</b>		<b>301097</b>	<b>26.30</b>
38	Ranebennur	Haveri	106406	17.16
	<b>TOTAL</b>		<b>106406</b>	<b>17.16</b>
39	Kalburgi	Kalaburagi	543147	107.24
40	Jewargi		25686	3.25
41	Chittapura		31299	5.10
	<b>TOTAL</b>		<b>600132</b>	<b>115.59</b>
42	Kolar	Kolar	138462	10.16
43	Srinivasapura		26793	3.00
44	Chintamani		76068	6.40
45	Siddlaghatta		51159	3.10
46	Malur		43658	4.00
	<b>TOTAL</b>		<b>336140</b>	<b>26.66</b>
47	Gangavathi	Koppal	114642	3.72
	<b>TOTAL</b>		<b>114642</b>	<b>3.72</b>
48	Maddur	Mandya	28754	3.50
49	Mandya		137358	18.52
50	SR Patna		25061	1.39
51	Nagamangala		17776	3.00
52	Malavalli		37601	5.65
	<b>TOTAL</b>		<b>246550</b>	<b>32.06</b>
53	Mysore	Mysore	920550	157.67

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54	Nanjangud		50598	7.00
55	Bannur		21896	3.31
56	Hunsur		50865	3.89
57	K.R.Nagar		35805	2.89
	<b>TOTAL</b>		<b>1079714</b>	<b>174.76</b>
58	Raichur	Raichur	234073	48.86
	<b>TOTAL</b>		<b>234073</b>	<b>48.86</b>
59	Ramanagar	Ramanagar	95167	7.57
	<b>TOTAL</b>		<b>95167</b>	<b>7.57</b>
60	Bhadravathi	Shimoga	151102	5.83
61	Shimoga		322650	5.18
62	Shikaripura		36015	5.00
	<b>TOTAL</b>		<b>509767</b>	<b>16.01</b>
63	Tumkur	Tumkur	302143	24.57
64	Turuvekere		14194	1.97
65	Tiptur		<b>59543</b>	<b>6.00</b>
	<b>TOTAL</b>		<b>375880</b>	<b>32.54</b>
66	Udupi	Udupi	144960	12.00
67	Karkala		25800	2.95
	<b>TOTAL</b>		<b>170760</b>	<b>14.95</b>
68	Bhatkal	Uttara Kannada	32000	3.50
69	Karwar		77139	1.50
	<b>TOTAL</b>		<b>109139</b>	<b>5.00</b>
70	Vijayapura	Vijayapura	327427	45.36
71	Basavanabagevadi		33198	4.20
72	Indi		38217	4.00
73	Talikote		31693	4.00
74	Hubli-Dharwad	Dharwad	943788	60.00
75	Bidar	Bidar	223783	17.26
76	Chikkaballapura	Chikkaballapura	63652	10.00
	<b>TOTAL</b>		<b>1661758</b>	<b>144.82</b>
	<b>GRAND TOTAL</b>		<b>9422359</b>	<b>1010.87</b>

**B. Reuse of treated sewage**

Bengaluru city ( source BWSSB)

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- Bangalore Water Supply and Sewerage Board proposes to use the treated sewage water for recharge of Lakes, use in Industrial establishments. Minor Irrigation Department, Government of Karnataka has entered into MOU with BWSSB to supply the secondary treated used water to recharge the Lakes of Kolar, Chikkaballpura Districts. Further, there are plans to provide the treated water to the industrial areas in Anekal, Narasapura and Devenahalli.
- From 30 MLD STP at B. Nagasandra of K & C Valley 2MLD of secondary treated sewage water is being supplied to Karnataka Golf Association, Domalur for the maintenance of turf.
- From 108 MLD, 110MLD and 30 MLD, 60 MLD STPs at B. Nagasandra along with 90 MLD STP at Bellandur, Ammanikere of K & C valley, MOU has been made with Minor Irrigation Department (MI) of GOK to supply 400 MLD of secondary treated used water to recharge 126 Lakes covering 7 Taluks of Kolar District and 120 MLD to 69 Lakes of Anekal Taluk, Bangalore urban district. Presently 200 MLD of secondary treated used water being supplied to Kolar district.
- From 1.5 MLD Tertiary Treated Plant (TTP) at Lalbagh is used by Horticulture Department used in Lalbagh gardens.
- Out of 4 MLD TTP at Cubbon Park, 2.5 MLD of tertiary treated used water is supplied to Horticulture department for gardening Cubbon Park, Rajbhavan, Hon'ble High Court of Karnataka, Bangalore Golf Course, Planetarium and War Memorial Gardens. Supply of 1.5 MLD is in the pipeline to supply treated water for gardening the premises of Criminal Investigation Department, Karnataka Public Service Commission, Karnataka Public Works Department and Civil Court.
- From 40 MLD STP-1 at Rajacanal, supply of 40 MLD secondary treated sewage water will be supplied to Devanahalli Industrial area of KIADB. Presently 5 MLD is being used.
- From 10 MLD Tertiary Treatment Plant (TTP) at Yelahanka, 6 MLD of tertiary treated sewage water is being supplied to M/s Kempegowda International Airport Limited, M/s Indian Tobacco Company, M/s Indian Air Force, M/s Bharath Electronics Limited, M/s Rail Wheel Factory, Prestige for their Gardening and other non-potable purposes.

45)

- From 75 MLD STP at Milasandra, 3 MLD of secondary treated sewage water is being supplied to M/s. Bhagyalakshmi Farms and M/s Tangline Developers (Global Village) for the gardening and other non potable purposes.
- 60 MLD Tertiary Treated Plant at Nayandahalli, Vrishabhavathi Valley, which was constructed on the request of Karnataka Power Corporation Limited (KPCL) for their contemplated gas based power project at Bidadi, however the supply has not commenced since the power project is yet to be commissioned. Presently, 10 MLD of water is treated in the plant. Out of 10 MLD, 2 MLD is utilized by M/s. Arvind Mills, M/s. Wonder Blues, M/s. Nandi Economic Corridor Enterprises for industrial and other non-potable purposes. Balance is let into SWD.
- . BWSSB while treating the used water also planning to generate power from a few of its STPs i.e., 3.6 MW/ day at Koramangala&Challagahtta Valley, 1 MW/day at Hebbal Valley and 4.8 MW/day at Vrishabhavathi Valley. Out of which, 1 MW /day is commissioned at K & C Valley.
- Apart from the above uses, tertiary treated sewage water being supplied to the Construction of High-rise buildings and for curing of Concrete roads in Bengaluru.
- BWSSB has made mandatory for installation of STP and Dual Piping System by a regulation vide notification No.BWSSB/CAO-S/ 5008 /2017-18 dtd: 21.2.2018 for the residential, commercial, educational institutions and industrial establishments.
- From 60 MLD existing STP & 100 MLD under Construction STP at Hebbal, 40MLD STP at Rajacanal, and 20 MLD STP at Horamavu of Hebbal Valley, MOU has been made with Minor Irrigation Department (MI ) of GOK to supply 210 MLD of secondary treated sewage water to recharge 65 Lakes covering 4 Taluks of Chikkaballapura District. MI department presently carrying out the pipeline work to supply the treated water.
- From 15 MLD STP at Jakkur of Hebbal Valley which is upgraded from 10 MLD to 15 MLD on the request of Karnataka Power Corporation Limited (KPCL) for their project at Yelahnaka for use in Cooling Towers.
- From 6 MLD STP at Kadugodi, secondary treated sewage water is to be supplied to Hindustan Petrochemical Corporation Limited., (HPCL) Research and Development Center at Devargunthi for gardening and recharging purpose.

PLW

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- Apart from the above, BWSSB is taking steps to curtail the supply of Cauvery drinking water to Bulk Consumers like Railways, Defence, Bengaluru Metropolitan Transport Corporation (BMTTC), Karnataka State Road Transport Corporation (KSRTC) and Bruhat Bengaluru MahanagaraPalike (BBMP) for gardening in their parks, by directing them to use treated used water for their non-potable purposes. BWSSB mandated installation of STPs to Apartment Buildings with dual piping system, creating awareness about conservation and save of water by Rainwater harvesting and re-use of treated water for non-potable purposes.

c) Other than Bengaluru ( KUWS &DB and UDD)

- Mangalore City Corporation has executed an Agreement with Mangalore SEZ during January 2008 for Operation and Maintenance of 3 STP of total capacity 80 MLD and to use treated effluent from the STPs for next 30 years and extendable further 20 years with the mutual consent. MOU enclosed
- Siddlaghatta City Municipal Council has auctioned treated Sewage of 3.10 MLD for Agriculture purpose to the Farmer for one year.
- Bellary City Corporation executed an agreement with Hottur Ispat Pvt Ltd., Bellary during April 2017 for drawal of 2.55 MLD of treated Sewage from 15.00 MLD Sewage Treatment Plant at Cowl Bazaar., Bellary. Further, 3 MLD will be utilized by Janaki Corporation Limited, Bellary.
- Tumkur city Corporation has identified the opportunity of Re-use of 18.0 MLD of treated Sewage for Vasantha Narasapura Phase 1, 2 & 3 at an estimated cost of Rs.72.0 Crores.
- Bellary City Corporation has identified opportunity of Re-use of 9.0 MLD of treated Sewage for Mundargi Industrial area and Kuduthani Industrial area at an estimated cost of Rs. 70.0 Crores
- Chitradurga City Municipal Council has identified opportunity of Re-use of 10.0 MLD of treated Sewage for ISRO and BARC Industrial area at an estimated cost of

Rs. 77.0 Crores

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- Hubli-Dharwad City Corporation has identified opportunity of Re-use of 2.5 MLD of treated Sewage for Belur Industrial area at an estimated cost of Rs. 30.5 Crores
- Mangalore City Corporation has identified opportunity of Re-use of 5.0 MLD of treated Sewage for Mangalore SEZ Industrial area at an estimated cost of Rs. 60.0 Crores
- Bidar City Municipal Corporation has identified opportunity of Re-use of 2.8MLD of treated Sewage for Kolhar Industrial area at an estimated cost of Rs. 26.0 Crores.
- Vijayapura City Corporation has identified opportunity of Re-use of 1.25MLD of treated Sewage for ETCO Denim Unit at an estimated cost of Rs. 9.0 Crores
- Harihara City Municipal Council has identified opportunity of Re-use of 2.16MLD of treated Sewage for proposed MRPL Yethanal Unit at an estimated cost of Rs. 60.0 Crores

White

Annexure - R-3J

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Annexure R3-J regarding Status of CETPs/ ETPs including performance

Sl. No.	Thematic area	Current Status	Desirable level	Gap between current status and desired levels	Time lines for attending gaps	Name and designation of the Designated Officer for ensuring compliance
	Status of CETPs/ ETPs including performance	In Order to monitor any illegal discharges from the CETPs following are the action plan				Sri Natesh Environmental Officer, Waste Management Cell
		1. GPS enabled vehicles are required to be used for transportation of effluents from the industry to CETP	100%	Nil	Complied	
		2. Only Board authorised vehicles shall be used for transportation of effluents from the industry to CETP	100%	Nil	Complied	
		3. Uploading of authorized vehicles to the Board website.	100%	Nil	Complied	
		4. Online generation of manifest system	100%	50% ( Soft ware ready, trials conducted )	31.12.2020	
		5. GPS enabled Vehicle tracking system	100%	100% ( Agency identified and work is yet to start)	31.12.2020	
		6. Colour coding for transportation vehicles	100%	100%	31.12.2020	

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	<p>7. Establishment of Common Effluent Treatment Plant at Urban Eco Park, Peenya of Capacity 200 KLD</p> <p>The establishment of CETP at Peenya will cater the needs of Peenya and surrounding areas most of the areas are coming under the catchment of V-Valley also. This will reduce the transportation distance.</p> <p>The State Government has sanctioned Rs. 10 Crores for establishment of CETP</p>	100%	<b>100% (Tender to be invited)</b>	31.12.2020	
	Fixing of inlet standards to CETP	100%	<i>Nil</i>	Complied	
	Display of Inlet standards in the Board website	100%	<i>Nil</i>	Complied	

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**The Compliance annexure to air pollution including  
Noise pollution for Karnataka State**

**Ambient Air Quality Monitoring:**

**National Ambient Air Quality Monitoring Programme (NAMP) in Karnataka State**

During the year 2018-19 the Board has monitored the ambient air quality of Bengaluru city at 20 locations including seven Continuous Ambient Air Quality Monitoring Stations (CAAQMS) using manual equipments under National Ambient Air Quality Monitoring Programme (NAMP) covering Industrial Area, Mixed Urban Area and Sensitive Area.

As per the Central Pollution Control Board guidelines, ambient air quality monitoring is being carried out twice a week, 24 hourly, 365 days for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>2</sub>, Ammonia and Lead. Monitoring is done on 24 hourly basis using CAAQMS for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>2</sub>, Ammonia, O<sub>3</sub>, CO and Benzene and the data is sent to CPCB, New Delhi electronically and also the data is uploaded in the Board's Web Site. The annual average results are shown in Table 16 & 17.

**Table 16: Annual average values of Air Pollutants at Bengaluru city during the year 18-19**

Sl. No	Name of the Station	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	NH <sub>3</sub> µg/m <sup>3</sup>	Pb µg/m <sup>3</sup>	O <sub>3</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	AQI	Category
1	Export promotional Park, ITPL, Whitefield Industrial Area	2.0	33.3	121.7	49.8	25.2	0.122	*	*	114	Moderate
2	Rail Wheel Factory, Yelahanka	2.0	32.7	105.9	*	25.2	0.071	*	*	104	Moderate
3	Yeshwanthpura Police Station	2.0	33.0	102.0	46.5	25.2	0.112	*	*	101	Moderate
4	Central Silk Board, Hosur Road	2.1	32.5	124.0	59.5	25.9	0.108	*	*	116	Moderate
5	City Railway Stn(CAAQMS)	6.8	39.0	126.0	*	*	*	*	1.6	117	Moderate
6	Central Silk Board (CAAQMS)	6.9	32.2	103.9	39.6	21.5	*	29.1	1.0	103	Moderate
7	Urban Ecopark Peenya	2.0	33.0	96.0	41.5	27.3	0.169	*	*	96	Satisfactory
8	Swan Silk Pvt. Ltd, Peenya	2.0	32.9	97.5	44.5	25.5	0.135	*	*	98	Satisfactory
9	AMCO Batteries, Mysore Road	2.0	33.4	100.5	43.9	26.8	0.186	*	*	100	Satisfactory
10	Banaswadi police station	2.0	27.8	67.7	*	24.7	0.035	*	*	68	Satisfactory
11	S.G.Halli (CAAQMS)	3.9	22.9	58.8	60.0	12.9	*	*	0.9	59	Satisfactory
12	Kajisonnenahalli	2.0	32.2	86.5	53.0	24.7	0.143	*	*	88	Satisfactory
13	TERI Office, Domlur	2.0	34.7	84.8	40.0	26.4	0.058	*	*	85	Satisfactory

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14	UVCE, K.R Circle	2.0	28.9	75.0	34.0	25.0	0.092	*	*	75	Satisfactory
15	Victoria Hospital, Bengaluru	2.0	32.5	65.8	27.5	25.2	0.037	*	*	66	Satisfactory
16	Indira Gandhi Child Health Care Centre	2.0	32.7	69.7	37.0	25.1	0.033	*	*	70	Satisfactory
17	Veterinary College, Hebbal (CAAQMS)	4.7	29.5	70.1	34.9	16.7	*	33.9	0.9	70	Satisfactory
18	Jayanagara 5th Block AAQMS)	7.3	35.9	87.2	38.0	24.1	*	35.7	1.1	87	Satisfactory
19	Kavika, Mysore Road(CAAQMS)	8.3	48.5	87.6	40.0	15.3	*	37.3	0.9	88	Satisfactory
20	Rajeev Gandhi Institute of Chest Diseases, NIMHANS (CAAQMS)	7.0	28.5	68.9	30.6	15.2	*	51.6	0.6	69	Satisfactory
<b>Standards, µg/m3</b>		<b>50.0</b>	<b>40.0</b>	<b>60.0</b>	<b>40.0</b>	<b>100.0</b>	<b>0.500</b>	<b>100.0</b>	<b>2.0</b>		
<b>Note : * Monitoring not carried out</b>								<b>Annual average AQI</b>		<b>88.7</b>	<b>Satisfactory</b>

Category (Range)	Possible Health Impacts	Category (Range)	Possible Health Impacts
Good (0-50)	Minimal Impact	Poor (201-300)	Breathing discomfort to people on prolonged exposure
Satisfactory (51-100)	Minor breathing discomfort to sensitive people		Respiratory illness to the people on prolonged exposure
Moderate (101-200)	Breathing discomfort to the people with lung, heart disease, children and older		Respiratory effects even on healthy people

**Brief summary of results:**

1. The measured SO<sub>2</sub>, NH<sub>3</sub> and Pb values are well within the national limit (50.0 µg/M<sup>3</sup>) (100.0 µg/M<sup>3</sup>) and (0.5 µg/M<sup>3</sup>) respectively in all measured places
2. The measured NO<sub>2</sub> values are well within the national limit (40.0 µg/M<sup>3</sup>) in all measured places except Kavika, Mysore Road.
3. The measured PM<sub>2.5</sub> values have exceeded the national limit (40.0µg/M<sup>3</sup>) at 8 locations.
4. The measured PM<sub>10</sub> values have exceeded the national limit (60.0µg/M<sup>3</sup>) in 19 locations.
5. Out of 20 locations AQI at 14 locations is Satisfactory and 6 locations AQI is Moderate.
6. The levels of PM<sub>10</sub>/PM<sub>2.5</sub> is attributed to the vehicular emissions/movement, re-suspension of road dust and construction activities.

**5A.7.1: AIR QUALITY IN DIFFERENT ZONES OF BENGALURU**

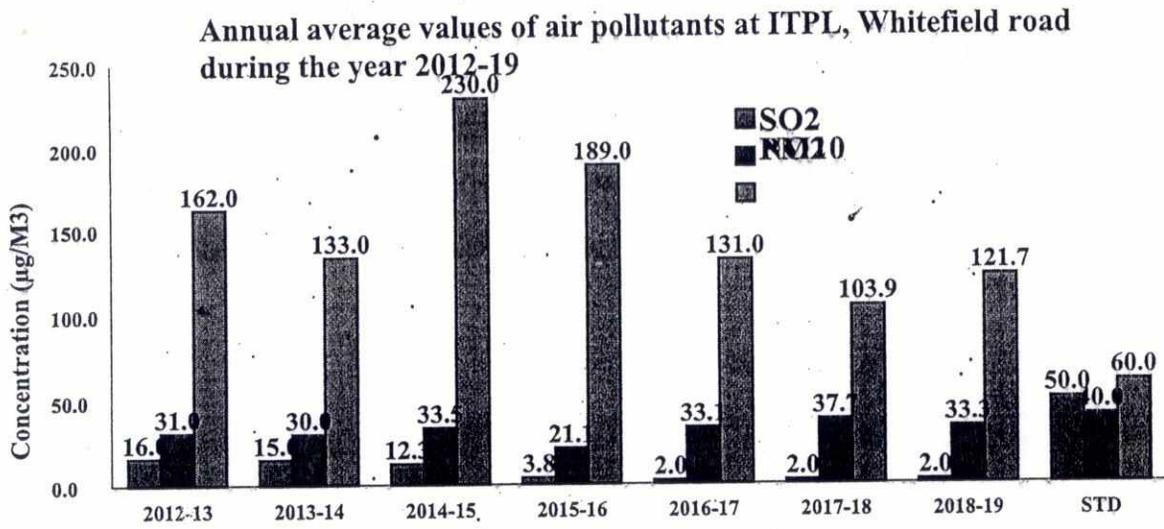
- **Industrial Zone:** Four ambient air quality monitoring stations have been set up in the industrial zones of Bengaluru city viz.

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- i) Export Promotional Park , ITPL , White Field Industrial Area
- ii) Rail Wheel Factory Yelahanka
- iii) Swan Silk Pvt Ltd, Peenya
- iv) Peenya Industrial area, RO, Urban Ecopark

1. ITPL, White field (Export Promotional Park), Bengaluru



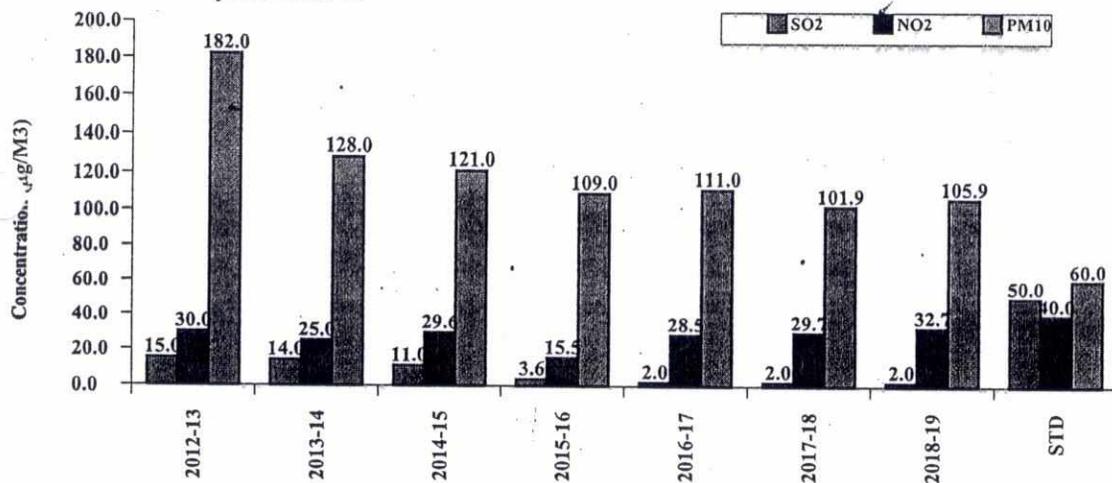
Average PM<sub>10</sub> values have exceeded the national limit (60.0 µg/m<sup>3</sup>) in all measured years, whereas SO<sub>2</sub> and NO<sub>2</sub> values are within the national limit during the period 2012-2019. Higher levels of PM<sub>10</sub> may be due to the construction activities, vehicular movement and road dust.

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2. Rail Wheel Factory, Yelahanka, Bengaluru

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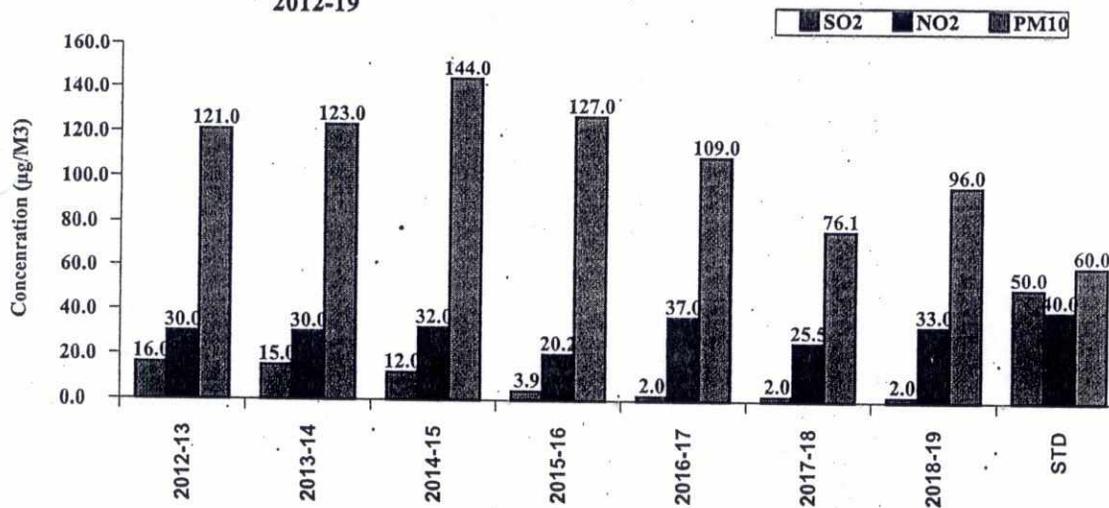
Annual average values of air pollutants at Rail Wheel Factory Yelahanka, during the years 2012-19



Average PM<sub>10</sub> values are exceeded the national ambient air quality standard (60.0 µg/m<sup>3</sup>) in all measured years. PM<sub>10</sub> values are higher than national limit, may be due to construction activities, vehicular movement and road dust. Whereas SO<sub>2</sub> and NO<sub>2</sub> are within the national limit during all the measured years 2012-19.

### 3. Peenya Industrial area(Urban Eco Park-Peenya), Bengaluru

Annual average values of air pollutants at Peenya Industrial Area, during the years 2012-19

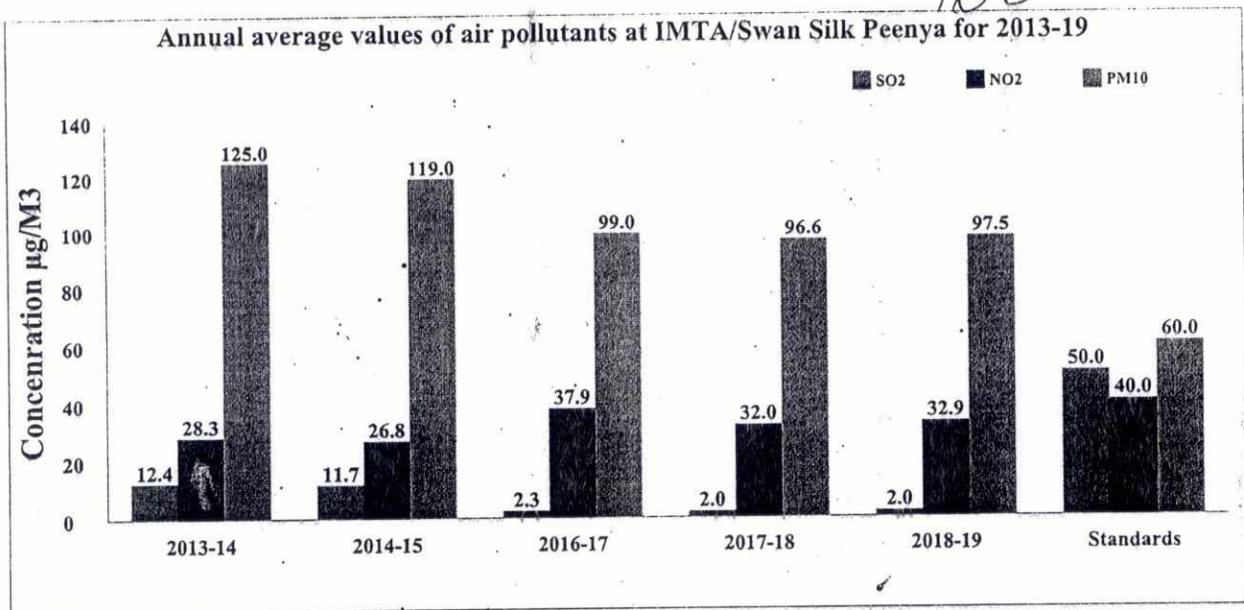


Average PM<sub>10</sub> values are exceeded the national ambient air quality standard (60.0 µg/m<sup>3</sup>) in all the measured years due to the construction activities, vehicular movement and road dust whereas SO<sub>2</sub> and NO<sub>2</sub> are within the national limit in all the measured years 2012-19.

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### 4. IMTA/Swan Silk Industry, Peenya, Bengaluru

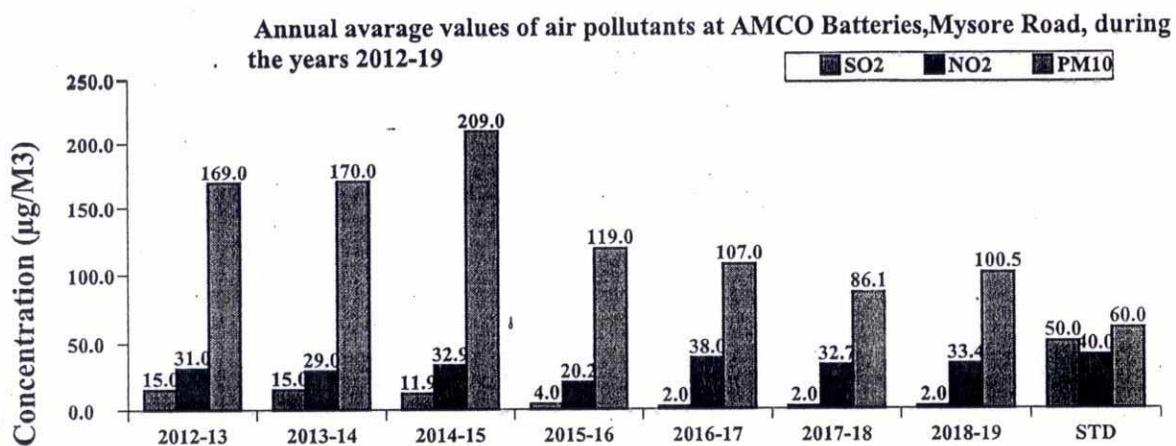
460



Average PM<sub>10</sub> values are exceeded the national ambient air quality standard (60.0 µg/m<sup>3</sup>) in all the measured years, due to the construction activities, vehicular movement and road dust, Whereas SO<sub>2</sub> and NO<sub>2</sub> are within the national limit in all the measured years 2013-19.

**Mixed urban zone:** Nine ambient air quality monitoring stations have been set up in the mixed zone (Residential, Rural & Other areas) of Bengaluru city viz. 1. AMCO Batteries, Mysore Road. 2. Yeshwanthpur Police Station, 3. Central Silk Board, Hosur Road, 4. DTDC office, Victoria Road, 5. TERI Office, Domlur, 6. Banaswadi Police Station, 7. Kajisonnenahalli, White Field, 8. Saneguruvanahalli, 9. UVCE, KR Circle, Bengaluru.

#### 5. AMCO Batteries Mysore Road, Bengaluru

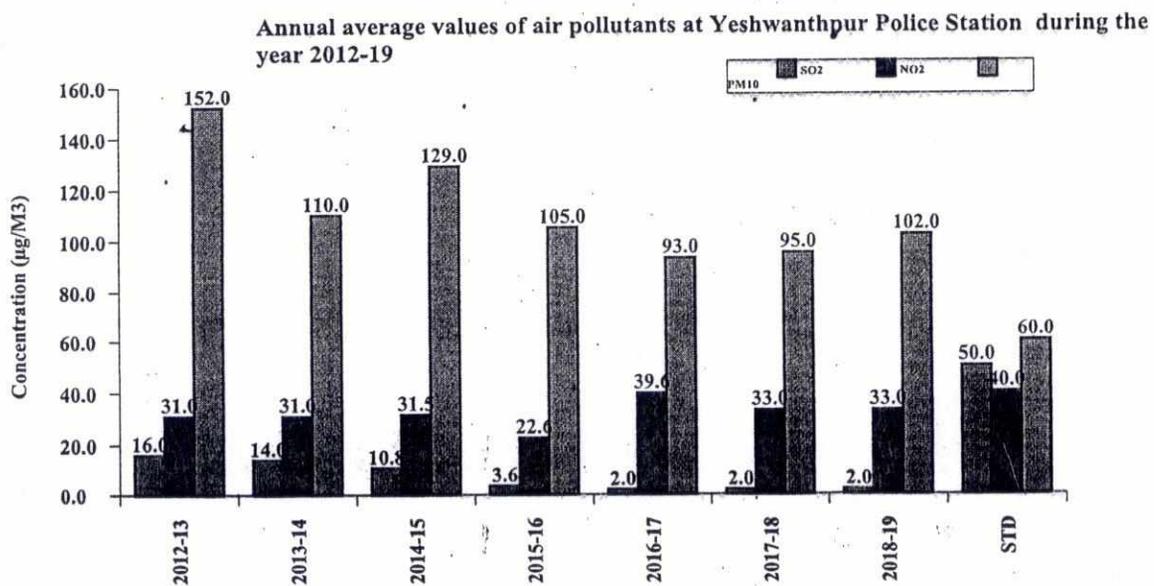


Average PM<sub>10</sub> values have exceeded the national ambient air quality limit (60.0 µg/m<sup>3</sup>) during the years 2012-2019, PM<sub>10</sub> values are around 3 fold higher than national limit, due to the construction activities, vehicular movement and road dust. Whereas SO<sub>2</sub> and NO<sub>2</sub> are well within the national limit during the years 2012 -2019.

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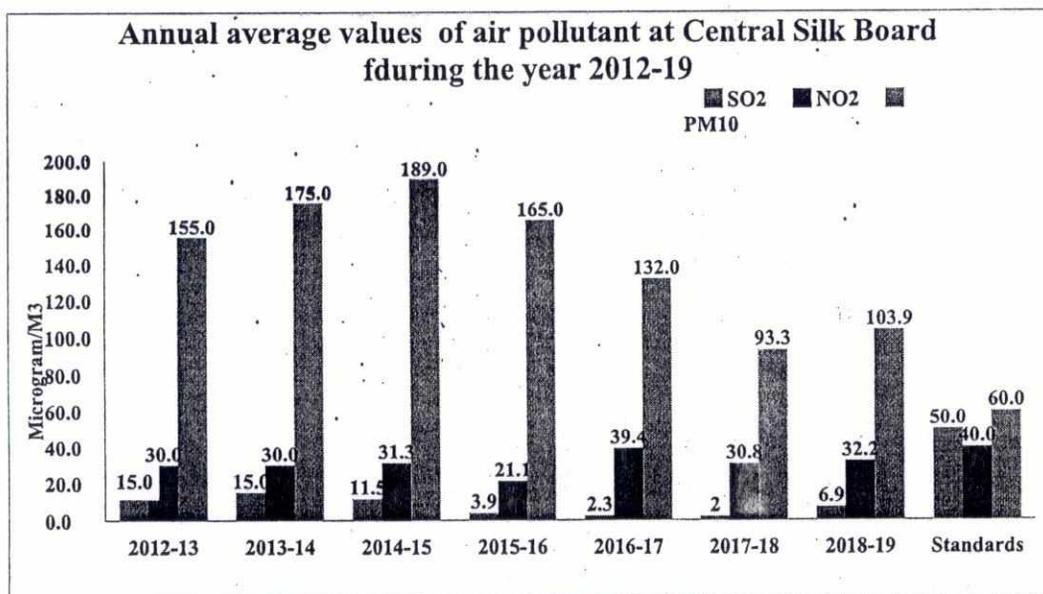
461

**6. Yeshwanthpur Police Station, Bengaluru**



Average PM<sub>10</sub> values have exceeded the national ambient air quality standard (60.0 µg/m<sup>3</sup>) in all measured years. Whereas SO<sub>2</sub> and NO<sub>2</sub> are within the national limit during 2012-19. Higher levels PM<sub>10</sub> is due to the construction activities, vehicular movement and road dust.

**7. Central Silk Board, Hosur road, Bengaluru**

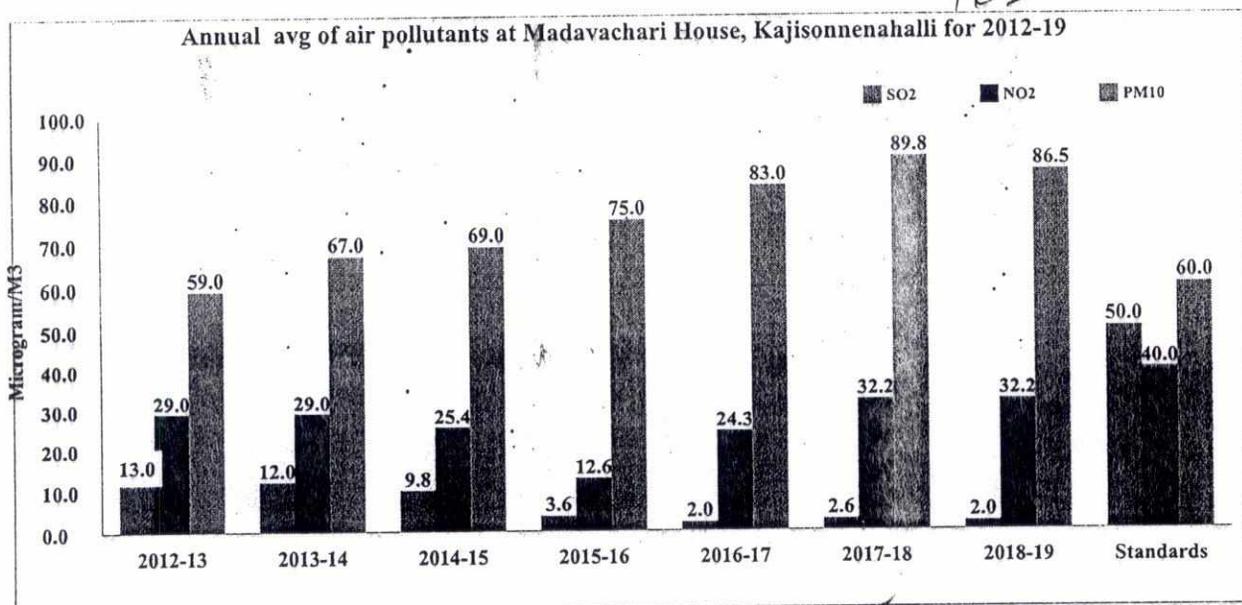


Average PM<sub>10</sub> values have exceeded the national ambient air quality standard (60.0 µg/m<sup>3</sup>) in all measured years, due to the construction activities, vehicular movement and road dust. Whereas SO<sub>2</sub> and NO<sub>2</sub> are within the national limit during 2012-19.

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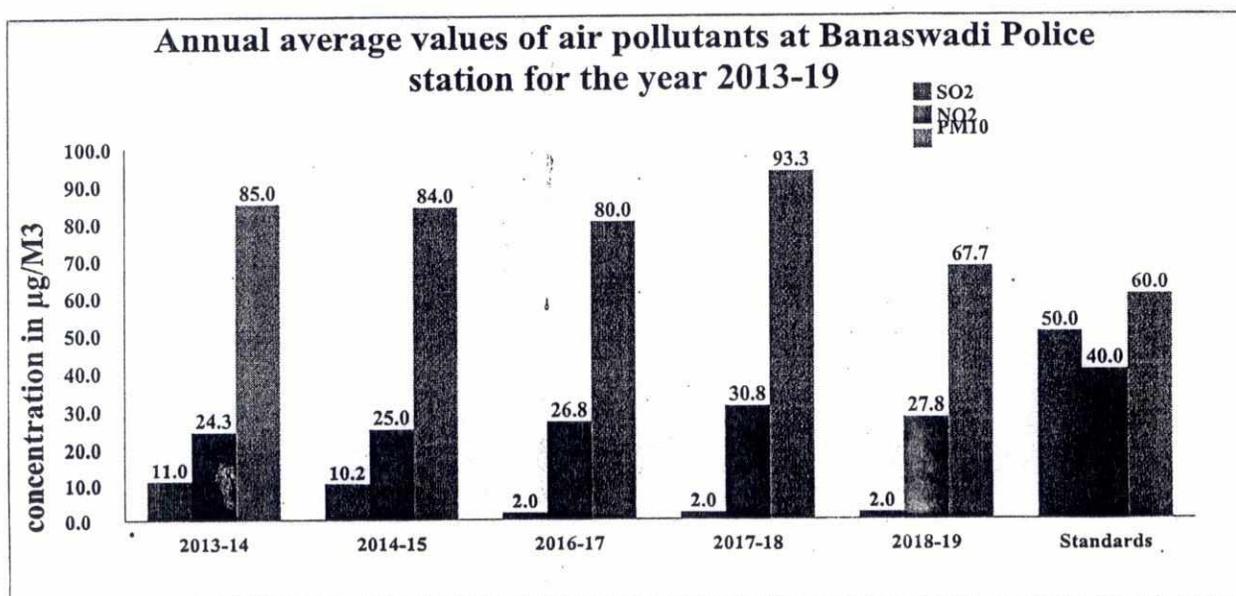
**8. Madavachari House, Kajisonnenahalli, Bengaluru**

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Average PM<sub>10</sub> values have slightly higher than the national ambient air quality standard (60.0 g/ m<sup>3</sup>) in all measured years except in the year 2012-2013 (59.0 µg/ m<sup>3</sup>), which is near to the National limits whereas SO<sub>2</sub> and NO<sub>2</sub> are within the national limit during 2012 -19.

9. Banaswadi Police Station, Bengaluru

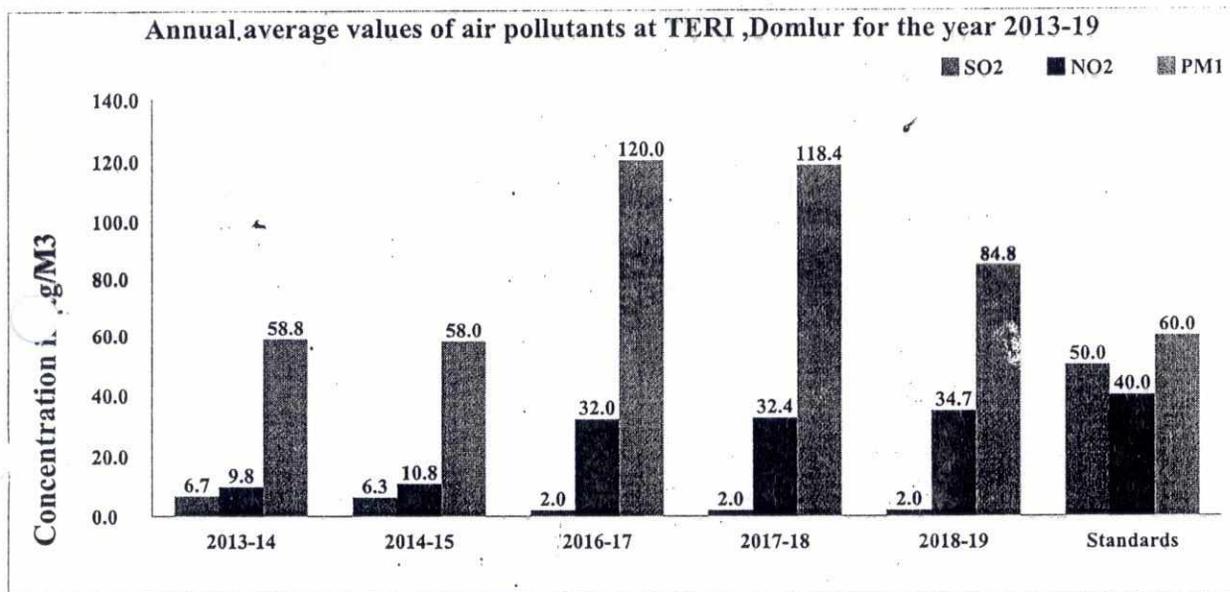


Average PM<sub>10</sub> values have exceeded the national ambient air quality standard (60.0 µg/M3) in all the measured years 2013-19, due to the construction activities, vehicular movement and road dust and SO<sub>2</sub> and NO<sub>2</sub> are within the national limit.

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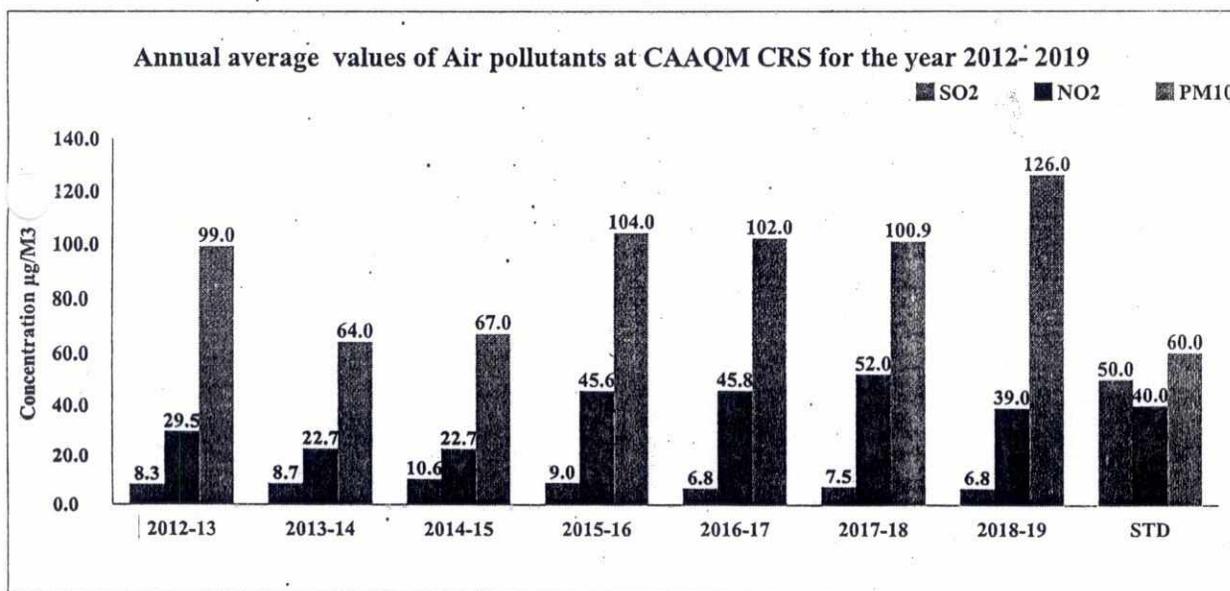
10. TERI, Domlur, Bengaluru

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PM<sub>10</sub> values have exceeded the national ambient air quality standard (60.0 µg/m<sup>3</sup>) in all the measured years 2013-19, due to the construction activities, vehicular movement and road dust and SO<sub>2</sub> and NO<sub>2</sub> are within the national limit.

### 11. CAAQMS at City Railway Station, Bengaluru



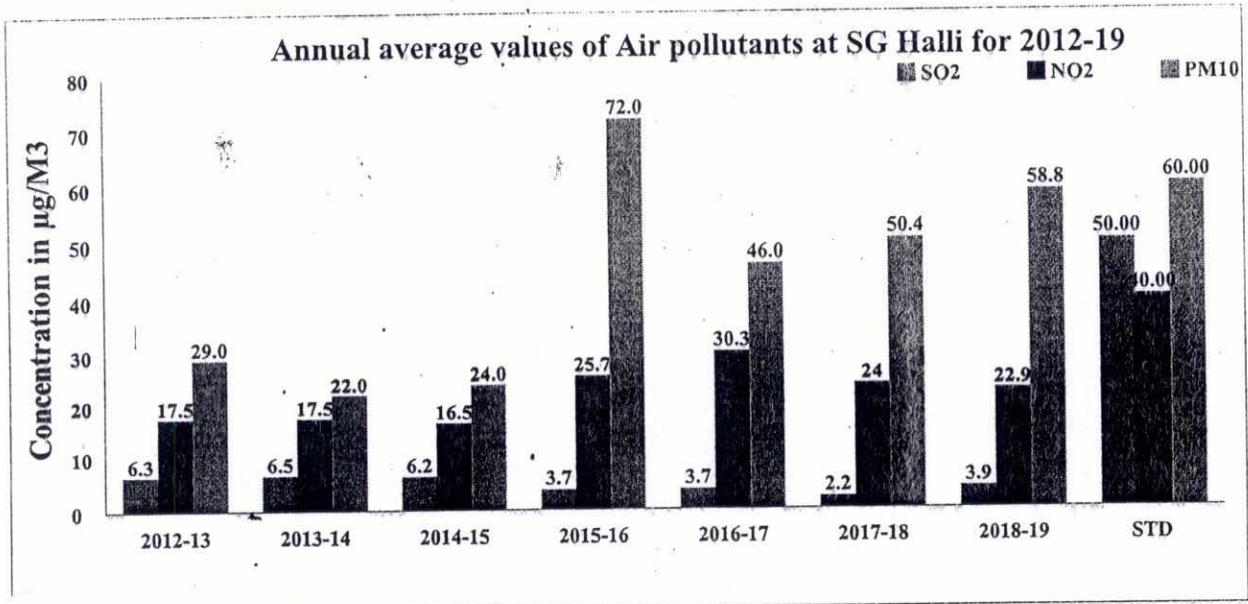
Average PM<sub>10</sub> values are exceeded the national ambient air quality standards 60.0 µg/m<sup>3</sup> for the years 2012-2019 and NO<sub>2</sub> values are within the national limit of 40.0 µg/M<sup>3</sup> for the years from 2012-13 to 2014-2015 & 2018-19 except for the year 2015-16 to 2017-18. SO<sub>2</sub> values are well within the national limit (50.0µg/m<sup>3</sup>) in all measured years 2012-2019. CO values are well within the national limit of (2.0 µg/m<sup>3</sup>) for all measured year 2012-2019. At City Railway Station Flyover construction is under progress, hence higher PM<sub>10</sub> levels in excess of national limit is reported. . Vehicular traffic has decreased in the said area due to

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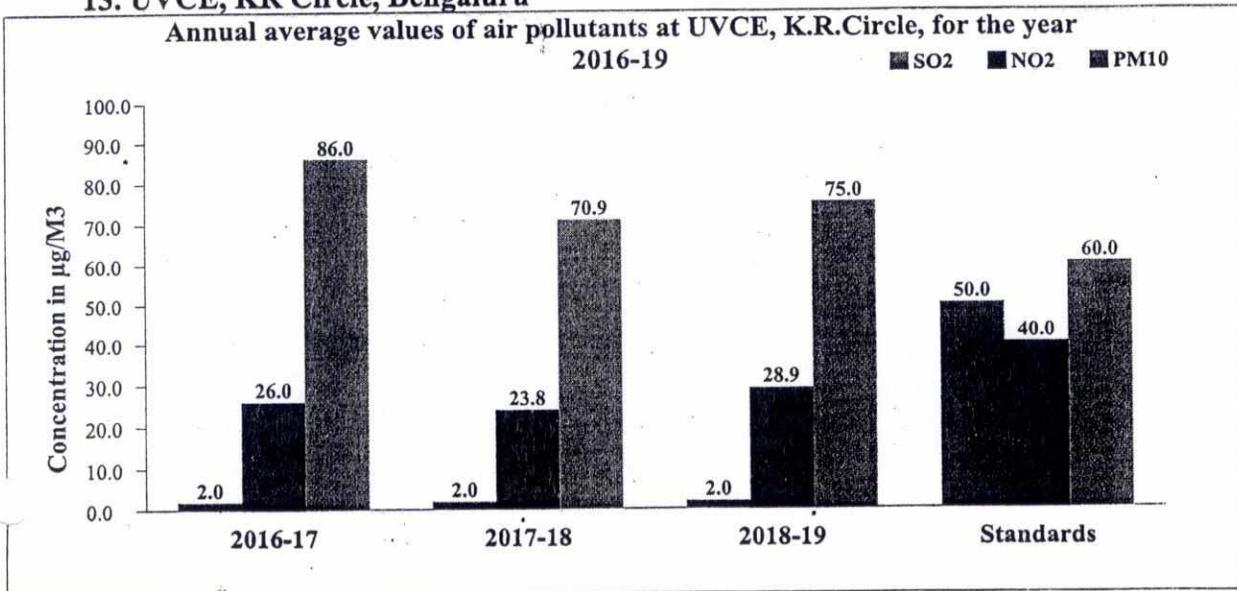
decentralization of KSRTC bus station at Peenya, Mysore Road and Shanthinagar. Hence, the pollutants like SO<sub>2</sub>, NO<sub>2</sub> showing decreasing trend.

**12. CAAQM at Saneguravanahalli, Nisarga Bhavan, Bengaluru**



At S.G.Halli SO<sub>2</sub>, NO<sub>2</sub> and CO values are within the national limit of ( 50.0 µg/m<sup>3</sup> and 40.0 µg/ m<sup>3</sup>, 2.0 mg/M<sup>3</sup>) respectively for the period of 2012 -19, and also PM<sub>10</sub> values are within the national limit ( 60.0 µg/M<sup>3</sup>), but increased for the year 2015-16. This is due to the sewer line and main drain construction activities inside and surrounding area of S.G.Halli and vehicular movement and road dust.

**13. UVCE, KR Circle, Bengaluru**



Average PM<sub>10</sub> values have exceeded the national ambient air quality standard (60.0 µg/m<sup>3</sup>) in all measured years whereas SO<sub>2</sub> and NO<sub>2</sub> are within the national limit during 2016-19. PM<sub>10</sub> limit exceeding values is due to the construction activities, vehicular movement and road dust.

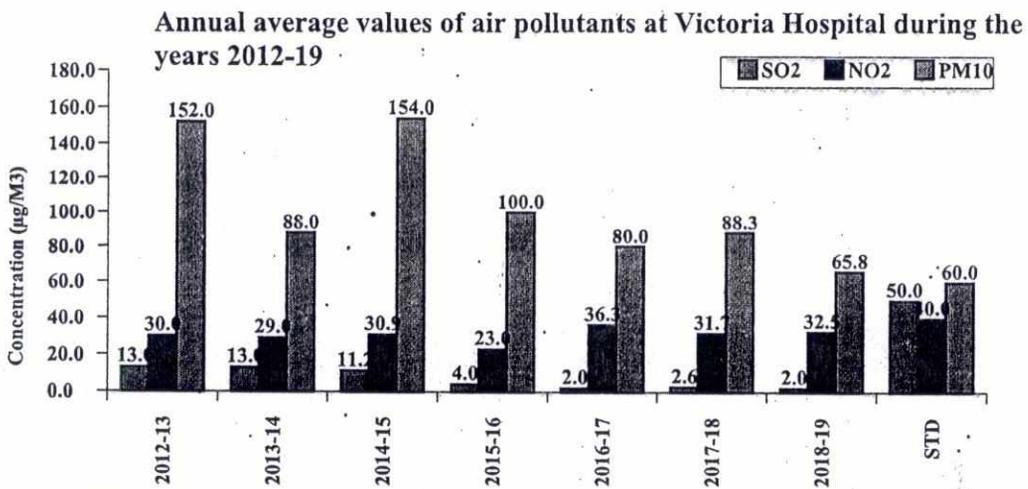
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**Sensitive zone:** Ambient air quality monitoring stations are installed at following sensitive zones of Bengaluru and the results are as below:

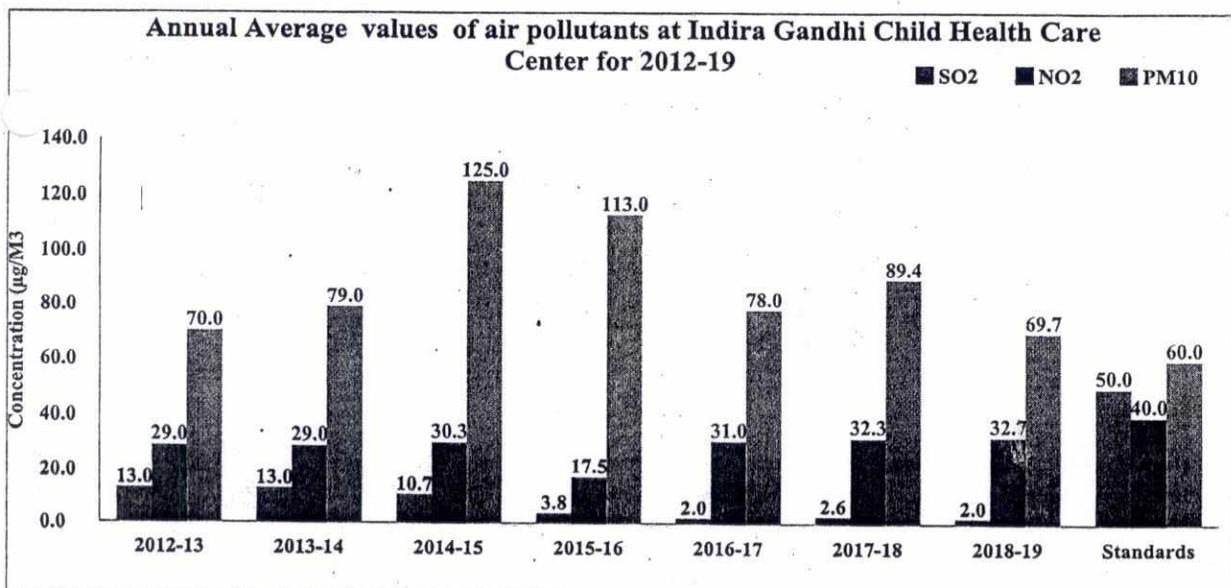
- i) Victoria Hospital, Bengaluru
- ii) Indira Gandhi Child Care Centre, NIMHANS

**14. Victoria Hospital**



Average PM<sub>10</sub> values are exceeded the national ambient air quality standard (60.0µg/m<sup>3</sup>) in all the measured years 2012-2019. This is due to the construction activities, vehicular movement and road dust and SO<sub>2</sub> and NO<sub>2</sub> are within the national limit.

**15. Indira Gandhi Child Health Care Centre (NIMHANS)**



Average PM<sub>10</sub> values have exceeded the national ambient air quality standard (60.0µg/m<sup>3</sup>) in the years 2012-13 to 2018-19 this is due to the construction activities, vehicular movement and road dust and SO<sub>2</sub> and NO<sub>2</sub> values are within the national limit.

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**5A.7.2: Air Quality in different districts of Karnataka**

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The Board during 2018-19 has monitored the ambient air quality at 22 locations of 19 major cities of Karnataka using manual equipments under National Ambient Air Quality Monitoring Programme (NAMP). Ambient air quality monitoring is being carried out twice a week throughout the year for 24 hours, for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>2</sub>, Ammonia & Lead using manual equipments as per Central Pollution Control Board guidelines and the data is sent to CPCB, New Delhi electronically and also uploaded in the Board website.

**Table: 17: Annual average values of Air Pollutants in other districts of Karnataka during the year 2018-19**

Sl No.	Location	SO <sub>2</sub> µg/M <sup>3</sup>	NO <sub>2</sub> µg/M <sup>3</sup>	PM <sub>10</sub> µg/M <sup>3</sup>	PM <sub>2.5</sub> µg/M <sup>3</sup>	NH <sub>3</sub> µg/M <sup>3</sup>	Pb µg/M <sup>3</sup>	AQI	Category
1	KSPCB Office Premises, Kolar	2	32	90	*	25	0.068	90	Satisfactory
2	KSPCB Office Premises, Tumakuru	2	32	79	*	26	0.052	79	Satisfactory
	KSRTC, Building, K. R. Circle, Mysuru	2	15	52	28	10	0.038	52	Satisfactory
4	KSPCB Office Premises, Mandya	2	13	46	*	10	0.002	46	Good
5	KSPCB Office Premises, Kodagu	2	12	35	19	10	0.002	35	Good
6	KSPCB Office Premises, Chamarajanagar	2	15	54	28	10	0.003	54	Satisfactory
7	KSPCB Office Premises, Hassan	2	18	30	24	10	0.006	40	Good
8	Baikampady Ind. Area, Mangaluru	7	10	54	38	10	0.129	63	Satisfactory
9	Gokul Rd. Opp. to New Bustand, Hubbli	2	24	82	25	23	0.001	82	Satisfactory
10	Lakkamanahalli ind.area, Dharwad	2	20	65	22	22	0.001	65	Satisfactory
11	Karwar Port, Director's Office, Karwar	2	27	57	36	*	*	60	Satisfactory
12	KSPCB Office Premises, Davangere	7	10	49	20	10	0.017	49	Good
13	Mothi Theatre, Gandhi Circle, Davangere	5	11	135	*	10	0.04	123	Moderate
14	HPF Intake Well, Ranibennur	6	4.5	40	17	10	0.016	40	Good 11
15	VISL, Bhadravathi,	11	4.5	43	16	10	0.023	43	Good

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PM<sub>10</sub> values are exceeded the national ambient air quality standard at 9 cities viz Kol Dharwad, Hubli, Belgavi, Raichur, Bidar, Tumakuru, Vijayapura and Davanagere and PM<sub>2.5</sub> values are exceeded at Belgavi and Bidar. All other parameters are well within the national ambient air quality standards. The AQI of Mandya, Kodagu, Hassan, Davanagere, Ranebennur, and Bhadravathi is under Good category, AQI of Kolar, Tumakuru, Mysuru, Chamarajanagar, Mangalore, Huballi, Dharwad, Karwar, Vijayapura, Bagalkote, Kalburgi, Raichur, Bidar and hitradurga is under satisfactory category and AQI of Davanagere and Belgavi is under moderate category due to the construction activities and vehicular movement and road dust.

**5A.8 : National Ambient Noise Monitoring Programme (NANMP) :**

As per section 5.2.8 (IV) of National Environmental Policy (NEP)-2006, CPCB is in the process of developing Noise Monitoring Network in India. It has decided to include ambient noise as a regular parameter for monitoring in specified urban areas.

The Hon'ble Minister for Environment and Forests, Govt of India has announced the road map for systematic monitoring of ambient noise under national noise monitoring network covering 25 cities by 2012 to make Indian cities less noisy.

Karnataka is one among the State and in Bengaluru it is proposed to establish 10 continuous monitoring stations. As per the proposal the Board has established 10 continuous ambient noise monitoring station with 50:50 cost sharing basis .

**Table 18: Continuous Ambient Noise Monitoring Stations in Bengaluru**

SI No.	Station Name	Type of Area
1	White field Industrial Area ,( Graphite India )	Industrial Area
2	Ace Manufacturing System, Peenya Industrial Area	Industrial Area,
3	KSPCB, Parisara Bhavan, # 49, Church Street	Commercial area
4	BWSSB site No. 137. Kadubidnahalli	Commercial Area
5	Yeshwanthpur, Police Station	Commercial Area
6	KSPCB office Building, Nisarga Bhavan, Sanegravannahalli,	Residential area
7	Madival lake, BTM II <sup>nd</sup> stage	Residential area
8	TERI Office, Domlur	Residential Area
9	Indira Gandhi Institute of Child Health Care Centre( NIMHANS)	Sensitive Area
10	RVCE, Mysore Road	Sensitive Area

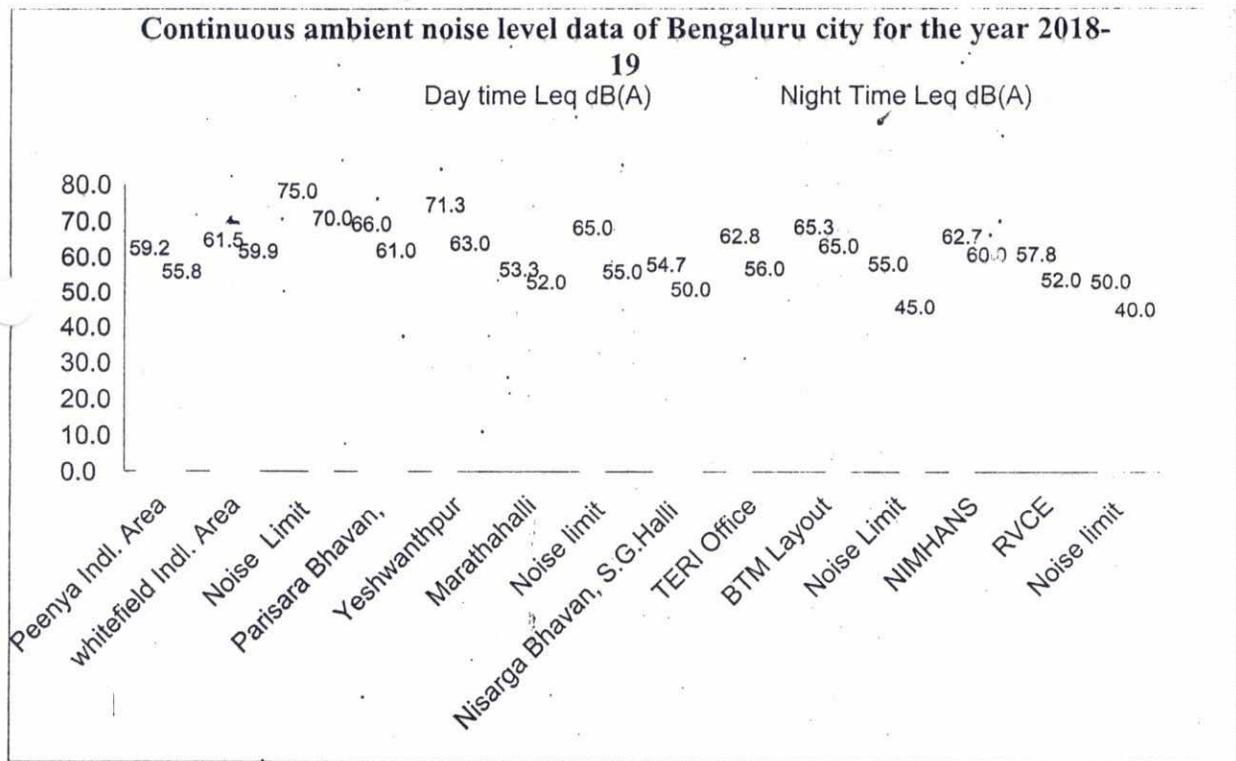
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**Table 19: Annual Noise levels measured at Ten Continuous Noise Monitoring Stations in Bengaluru city for 2018-19**

Sl No	Name of the Station	Limit dB (A) Leq	Day Time			% Increase	Limit dB(A) Leq	Night Time			% Increase
			L <sub>eq</sub>	L <sub>min</sub>	L <sub>max</sub>			L <sub>eq</sub>	L <sub>min</sub>	L <sub>max</sub>	
1	Peenya Industrial Area	75	59.2	42.2	82.1	0 %	70	55.8	50.6	70.9	0 %
2	White field Industrial Area near ITPL	75	61.5	42.5	98.5	0 %	70	59.9	49.2	94.9	0 %
3	Church Street (ParisaraBhavan)	65	66	43	81.8	2.2%	55	61	49.6	76.4	10.1%
4	Yeshwanthpur Police Station	65	71.3	44.7	83	9.7%	55	63	52.3	73.8	14.5%
5	BWSSB site, Marathahalli	65	53.3	32.4	107	1.05 %	55	52	41.1	107	7.3
6	S.G Halli, (Nisarga Bhavan)	55	54.7	39.5	85.5	9.1%	45	50	42.1	80.9	12.5%
7	TERI Office, Domlur	55	62.8	41.5	82.6	14.1%	45	56	40.6	74.0	24.4%
8	BTM Layout	55	65.3	44.3	85.2	18.6%	45	65	53.2	84	44.7%
9	IGICH (NIMHANS)	50	62.7	35.5	88.4	30.9 %	40	60	38.4	83.5	50.4%
10	RVCE, Mysuru Road	50	57.8	41.8	81.4	15.5%	40	52	44.9	71.1	30.7%

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**Table 20:**

Sl. No	Category of Area	Day Limit dB(A) Leq	Status of noise level in day	Night Limits dB(A) Leq	Status of noise level in night
1	Industrial Area	75	0 % exceeded	70	0 % exceeded
2	Commercial area	65	1.05 to 9.7 % of exceeded	55	7.3 to 14.5 % exceeded
	Residential Area	55	9.1 to 18.6 % exceeded	45	12.5 to 44.7 % exceeded
4	Sensitive Area	55	15.5 to 30.9 % exceeded	45	30.7 to 50.4 % exceeded

**Note:**

1. Day time shall mean from 6.00 AM to 10.00 PM and Night time shall mean from 10.00PM to 6.00 AM
2. Silence zone is an area comprising not less than 100 meters around Hospitals, Educational Institutions, Courts, Religious places or any other which is declared as such by the competent authority.
3. dB(A) Leq denotes the time weighted average of the level of sound decibels on scale "A" which is relatable to human hearing. "A" decibel is a unit in which noise is measured.
4. "A" in dB(A) Leq, denotes the frequency weighting in the measurements of noise and corresponds to frequency response characteristics of the human ear.
5. "Leq" it is energy mean of the noise level over a specific period.

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Annexure R3-K for Noise Pollution in Respect of Bangalore Metropolitan City						
Sl.No	CONTENT	CURRENT STATUS	DESIRABLE in %	GAP in %	TIME LINE	Name and designation of the Designated Officer for ensuring compliance
1	No. of Stations for ambient Noise Monitoring	10	100%	Nil	Complied	Smt. Lokeshwari, Chief Scientific Officer
2	No. of Stations in Industrial Zone	2	100%	Nil	Complied	
3	No. of Stations in Commercial Zone	3	100%	Nil	Complied	
4	No. of Stations in Residential Zone	3	100%	Nil	Complied	
5	No. of Stations in Silence Zone	2	100%	Nil	Complied	
6	Compliance of Ambient Standards (No. of Stations)	Status of online Ambient Noise monitoring results of 10 stations for the Year 2019-20 (from April 2019 to December-2019) is enclosed as <b>Annexure-I</b>		Nil		
	Industrial Zone		100	Nil	Complied	
	Commercial Zone		100	15	31.12.2022	
	Residential Zone		100	40	31.12.2022	
	Silence Zone		100	52	31.12.2022	
7	Identification of Hot Spots	Project is Under progress. (This project for Benaglauru city is entrusted to CSIR-NEERI by CPCB, Delhi).	100	100	31.03.2021	
8	Designated Authorities defined as per Noise Rules (Y/N) (Details to be provided)	Yes. The Technical Officers of the KSPCB not below the rank of Deputy Environmental Officer are delegated with powers for enforcement. (O.M No. KSPCB/246/CC/2016/2009/5801, dated:3.2.2020).	100	Nil	Complied	
9	Has Methodology been prepared for granting permission for installation of Public Address System? (Y/N) (Details to be provide)	Local Bodies and Police are granting permission for installation of public address system.	100	Nil	Complied	
10	Has Methodology been prepared for redressal of complaint on noise pollution? (Y/N) (Details to be provide)	For redressal of complaint on Noise Pollution methodology present. (Flow chart enclosed as <b>Annexure-II</b> ). The Web based software has been developed and dedicated short code help line No. 10741 is allotted by Ministry of Communication and Information Technology, Department of telecommunications.	100	Nil	Complied	
11	No. of Police Stations equipped with sound level meter	108 Police stations ( Law & Order) will be provided 108 Noise/ Sound level meters by KSPCB as per Govt. of Karnataka order). Procurement of Noise level meters along with caliberators and printers through E-tender is under progress.	100	100	30.06.2020	
12	No. of Police Stations having officers trained as per Noise Pollution Rules by SPCBs/PCs.	The KSPCB has conducted training programme for Police personnel on 6.11.2019.	100	Nil	Complied	
13	Has Protocol been developed for taking appropriate action against the defaulters?	Protocol is being developed and will be submitted.	100	100	30.09.2020	
14	No. of cities in which Noise Mapping has been done (if applicable)	Under progress . Bengaluru City in Karnataka State is the only one metropolitan city which requires noise mapping. This project is entrusted to CSIR-NEERI, Nagpur by CPCB, Delhi.	100	100%	31.03.2021	

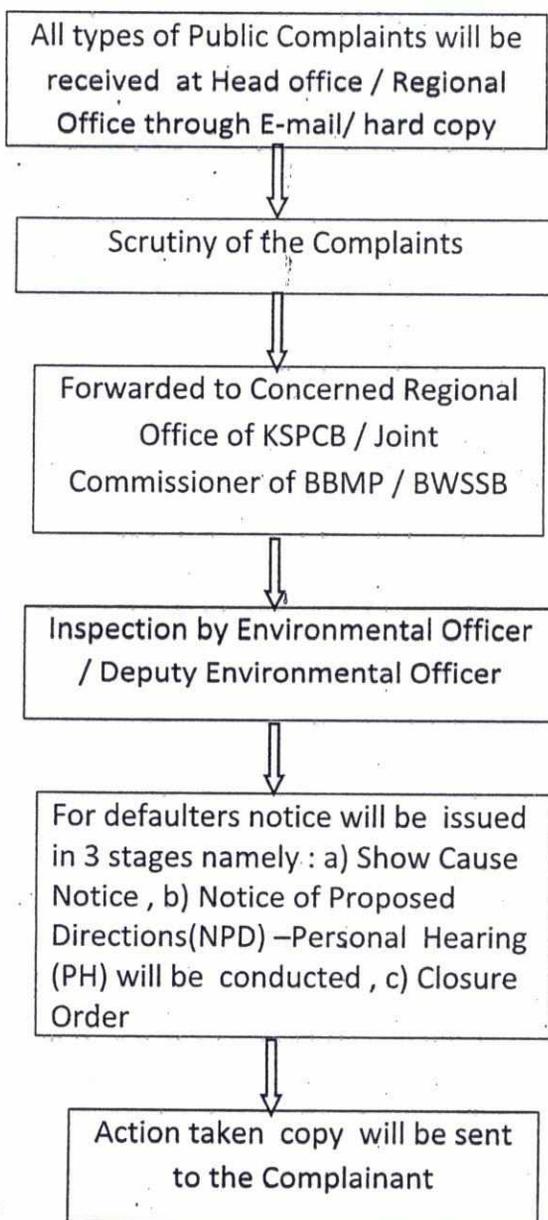
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Annexure-II for Format -J

**For Redressal of complaint on Noise Pollution  
Methodology in the form of flow chart**



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**Annexure-I for Format -J**

**Noise levels measured at Ten Continuous Noise Monitoring Stations in Bengaluru city  
for the months of April 2019 to December-2019**

Date	Limits in dB(A) Leq*	Day Time			% Increase	Limits in dB(A) Leq*	Night Time			% Increase	No. of Days
		Leq	Lmin	Lmax			Leq	Lmin	Lmax		
<b>1. Indira Gandhi Institute of Child Health (NIMHANS), Sensitive Area</b>											
Apr-19	50	59.2	21.6	99.3	18.4%	40	56.3	34.3	87.9	40.7	30 Days
May-19	50	62.2	21.6	87.7	24.4%	40	61.1	35.3	90.3	52.8	31 Days
June-19	50	66.5	21.6	107.9	33.0%	40	72.2	35.3	105.4	80.5%	30 days
July-19	50	64.5	21.6	101.9	29.0%	40	73.0	34.8	102.6	82.5%	31 Days
Aug-19	50	56.0	21.6	90.7	12.0%	40	57.5	34.0	85.5	43.8%	31 Days
Sep-19	50	60.5	21.6	96.3	21.0%	40	61.7	34.1	105.0	54.3%	30 Days
Oct-19	50	71.8	21.6	104.3	43.6%	40	71.7	38.8	103.2	79.3%	31 Days
Nov-19	50	68.5	21.6	90.0	37.0%	40	74.3	40.0	90.0	85.8%	30 Days
Dec-19	50	77.8	21.6	91.0	55.6%	40	79.0	50.6	90.4	97.5%	31 Days
<b>2. RVCE Mysore Road, Sensitive Area</b>											
Apr-19	50	57.2	21.6	102.3	14.4%	40	51.3	44.1	76.4	28.3%	30 Days
May-19	50	56.6	21.6	78.6	13.2%	40	54.1	46.6	82.2	35.3%	31 Days
June-19	50	58.0	21.6	82.1	16.0%	40	53.8	46.2	81.6	34.5%	30 Days
July-19	50	59.0	21.6	74.5	18.0%	40	52.6	47.3	64.0	31.5%	31 Days
Aug-19	50	62.5	21.6	111.2	25.0%	40	60.3	47.8	111.4	50.8%	31 Days
Sep-19	50	57.0	21.6	111.3	14.0%	40	57.2	46.5	111.2	43.0%	30 Days
Oct-19	50	71.7	21.6	104.3	43.4%	40	57.2	47.0	110.3	43.0%	31 Days
Nov-19	50	58.5	21.6	90.0	17.0%	40	53.0	48.0	82.2	32.5%	30 Days
Dec-19	50	57.8	21.6	91.0	15.0%	40	52.5	45.0	73.8	31.3%	31 Days
<b>3. TERI Office, Domlur, Residential Area</b>											
Apr-19	50	60.8	21.6	104.2	10.5%	45	52.1	40.6	76.3	15.8%	30 Days
May-19	50	58.9	21.6	80.9	7.1%	45	58.2	41.1	80.8	29.3%	31 Days
June-19	55	64.0	21.6	81.8	16.4%	45	59.1	40.5	84.2	31.3%	30 Days
July-19	55	65.0	21.6	79.8	18.2%	45	60.7	42.1	75.2	34.9%	31 Days
Aug-19	55	65.0	21.6	82.3	18.2%	45	63.0	42.0	72.6	40.0%	31 Days
Sep-19	55	62.2	21.6	80.6	13.0%	45	62.1	40.1	72.6	38.0%	30 Days
Oct-19	55	58.0	21.6	78.6	5.5%	45	56.5	38.9	71.5	25.5%	31 Days
Nov-19	55	60.7	21.6	72.0	10.4%	45	51.8	40.6	69.7	15.1%	30 Days
Dec-19	55	63.4	21.6	77.2	15.3%	45	57.2	40.0	72.4	27.1%	31 Days
<b>4. BTM Layout, Residential Area</b>											
Apr-19	50	58.3	21.6	76.4	6.0%	45	56.4	50.1	82.3	25.3%	30 Days
May-19	50	63.1	21.6	77.5	14.7%	45	63.4	58.5	84.1	40.9%	31 Days
June-19	55	64.8	21.6	82.1	17.8%	45	64.4	60.1	76.0	43.1%	30 Days
July-19	55	64.0	21.6	73.8	16.4%	45	63.8	59.3	75.5	41.7%	31 Days
Aug-19	55	65.5	21.6	88.9	19.0%	45	65.1	59.9	76.5	44.7%	31 Days
Sep-19	55	66.5	21.6	84.3	20.9%	45	66.8	60.0	83.4	48.4%	30 Days
Oct-19	55	66.5	21.6	78.6	20.9%	45	66.5	60.3	74.1	47.8%	31 Days

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Nov-19	55	67.2	21.6	90.0	22.1 %	45	67.2	60.3	90.0	50.0 %	30 Days
Dec-19	55	68.1	21.6	85.4	23.8 %	45	68.0	63.0	80.0	51.1 %	31 Days
<b>5. Regional Office Complex, KSPCB, Nisarga Bhavan, S.G.Halli, Residential Area</b>											
Apr-19	55	53.2	21.6	110.1	Within limit	45	52.6	36.4	101.7	16.9%	30 Days
May-19	55	53.9	21.6	76.9	Within limit	45	50.9	36.3	79.5	13.1%	31 Days
June-19	55	73.1	21.6	105.9	32.9 %	45	80.2	14.0	109.0	78.2 %	30 Days
July-19	55	57.8	21.6	104.6	5.0 %	45	50.6	26.1	110.0	12.4 %	31 Days
Aug-19	55	48.4	21.6	100.5	Within limit	45	43.6	27.0	101.5	Within limit	31 Days
Sep-19	55	49.7	21.6	105.9	Within limit	45	45.0	30.7	103.7	Within limit	30 Days
Oct-19	55	70.6	21.6	120.9	28.3 %	45	69.8	42.0	128.5	55.1 %	31 Days
Nov-19	55	61.2	21.6	90.0	11.3 %	45	64.3	42.0	90.0	42.9 %	30 Days
Dec-19	55	53.7	21.6	90.0	Within limit	45	48.5	40.0	90.0	7.8%	31 Days
<b>6. Parisara Bhavan, Church Street, KSPCB, Commercial Area</b>											
Apr-19	65	65.9	21.6	77.0	1.4%	55	59.4	49.9	73.6	8.0%	30 Days
May-19	65	64.9	21.6	75.2	Within limit	55	63.4	51.4	78.3	15.3%	31 Days
June-19	65	67.0	21.6	80.8	3.0 %	55	62.1	51.0	76.5	12.9 %	30 Days
July-19	65	67.2	21.6	85.8	3.4 %	55	62.2	51.1	75.3	13.1 %	31 Days
Aug-19	65	66.3	21.6	78.0	2.0 %	55	61.8	51.1	78.3	12.3 %	31 Days
Sep-19	65	65.0	21.6	82.1	Within limit	55	62.8	50.4	79.1	14.1 %	30 Days
Oct-19	65	65.3	21.6	75.1	0.5 %	55	61.5	48.9	74.4	11.8 %	31 Days
Nov-19	65	66.1	21.6	80.7	1.7 %	55	60.3	50.3	73.3	10.5 %	30 Days
Dec-19	65	66.2	21.6	76.2	1.8 %	55	60.0	48.7	76.8	9.0 %	31 Days
<b>7.CAAQMS of CPCB at BWSSB site, Kadubisanahalli Marathahalli, Commercial Area</b>											
Apr-19	65	59.1	21.6	109.9	Within limit	55	56.4	49.9	73.6	2.5%	30 Days
May-19	65	75.9	21.6	106.8	16.8%	55	74.8	51.4	78.3	36.0%	31 Days
June-19	65	56.6	21.6	95.1	Within limit	55	59.0	38.2	92.0	7.3 %	30 Days
July-19	65	78.5	21.6	78.5	20.7 %	55	62.0	55.4	80.3	12.7 %	31 Days
Aug-19	65	63.0	21.6	99.0	Within limit	55	62.7	39.6	86.5	14.0 %	31 Days
Sep-19	65	55.9	21.6	89.7	Within limit	55	55.0	22.9	91.4	Within limit	30 Days
Oct-19	65	65.1	21.6	104.4	0.1 %	55	64.2	49.4	87.7	16.7 %	31 Days
Nov-19	65	59.2	21.6	76.8	Within limit	55	60.0	48.9	75.0	9.1 %	30 Days
Dec-19	65	74.5	21.6	89.7	14.6 %	55	74.4	59.3	87.1	35.2 %	31 Days
<b>8.Yeshwanthpur, Police Station, Commercial Area</b>											
Apr-19	65	70.9	21.6	103.2	9.0%	55	62.5	52.8	73.1	13.6%	30 Days
May-19	65	69.5	21.6	77.7	6.9%	55	67.1	56.1	79.3	22.0%	31 Days
June-19	65	71.6	21.6	83.0	10.1 %	55	64.4	55.8	74.0	17.0 %	30 Days
July-19	65	72.2	21.6	81.1	11.0 %	55	64.6	56.8	83.0	17.4 %	31 Days
Aug-19	65	71.4	21.6	83.0	9.8 %	55	66.4	55.6	76.8	20.7 %	31 Days
Sep-19	65	70.2	21.6	80.5	8.3 %	55	67.5	57.0	78.3	22.7 %	30 Days
Oct-19	65	68.8	21.6	77.2	5.1 %	55	68.6	56.8	76.7	24.7 %	31 Days
Nov-19	65	71.6	21.6	87.6	10.1 %	55	63.2	54.2	72.9	14.9 %	30 Days
Dec-19	65	72.0	21.6	82.1	10.7 %	55	63.5	56.6	78.9	15.4 %	31 Days
<b>9.Near ITPL, White field Industrial Area ( Graphite India) Industrial Area</b>											
Apr-19	75	64.6	21.6	104.5	Within limit	70	59.4	50.7	71.1	Within limit	30 Days
May-19	75	64.8	21.6	82.8	Within limit	70	60.6	49.8	72.4	Within limit	31 Days
June-19	75	66.0	21.6	78.5	Within limit	70	61.2	51.1	70.8	Within limit	30 Days
July-19	75	66.7	21.6	76.3	Within limit	70	62.1	53.6	74.0	Within limit	31 Days
					Within limit					Within limit	

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Aug-19	75	66.6	21.6	108.3		70	63.6	52.1	108.2		31 Days
Sep-19	75	65.0	21.6	75.1	Within limit	70	63.4	52.6	72.6	Within limit	30 Days
Oct-19	75	63.6	21.6	74.0	Within limit	70	62.0	52.1	71.5	Within limit	31 Days
Nov-19	75	65.0	21.6	71.0	Within limit	70	59.0	50.5	68.8	Within limit	30 Days
Dec-19	75	65.0	21.6	71.2	Within limit	70	58.7	48.1	70.5	Within limit	31 Days

**10.CAAQMS of CPCB at ACE Manufacturing System, Peenya Industrial Area**

Apr-19	75	60.7	21.6	78.1	Within limit	70	56.2	52.0	66.9	Within limit	30 Days
May-19	75	59.1	21.6	81.8	Within limit	70	58.3	31.1	71.1	Within limit	31 Days
June-19	75	62.3	21.6	86.8	Within limit	70	56.3	50.2	67.7	Within limit	30 Days
July-19	75	61.3	21.6	75.6	Within limit	70	56.2	51.4	70.8	Within limit	31 Days
Aug-19	75	58.8	21.6	78.6	Within limit	70	64.5	50.4	86.4	Within limit	31 Days
Sep-19	75	61.2	21.6	77.8	Within limit	70	60.5	53.0	75.5	Within limit	30 Days
Oct-19	75	61.2	21.6	79.8	Within limit	70	60.4	52.2	76.4	Within limit	31 Days
Nov-19	75	62.4	21.6	76.7	Within limit	70	59.7	57.5	65.3	Within limit	30 Days
Dec-19	75	62.0	21.6	74.5	Within limit	70	59.9	56.0	66.2	Within limit	31 Days

**Note:**

1. Day time shall mean from 6.00 AM to 10.00 PM and Night time shall mean from 10.00PM to 6.00 AM
2. Silence zone is an area comprising not less than 100 meters around Hospitals, Educational Institutions, Courts, Religious places or any other which is declared as such by the competent authority.
3. dB(A) Leq denotes the time weighted average of the level of sound decibels on scale "A" which is relatable to human hearing. "A" decibel is a unit in which noise is measured.
4. "A" in dB(A) Leq, denotes the frequency weighting in the measurements of noise and corresponds to frequency response characteristics of the human ear.
5. "Leq" it is energy mean of the noise level over a specific period.

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Sl. No	NGT Order in OA 606 dated:12.09.2019 & 07.01.2020	Implementation status					475
1	2	3	4				
		Current Status (Compliance as on till date)	Desirable Level of Compliance in terms of statutes	Gap Between current status and desired levels	Proposal of attending the gap with time lines	Name and designation of designated officer for ensuring compliance to provisions under statute (Commissioner/ Director) with Mobile No.	
1	Status of (a) STPs & (As on 11-02-2020)	(a) BWSSB is having STPs with a total capacity of <b>1112.50 MLD</b> .  Presently, 9 STPs with total capacity of 475MLD are under construction at different locations of the city making the total treatment capacity <b>1587.50MLD</b> by end of 2020.	100%	22.75%	31.12.2020	Sri E. Nithyanandakumar- CE(WWM) – 9845444006	
	b) re-use of treated water (As on 11-02-2020)	(b) 841.30MLD of sewage is being treated out of which <b>430.50MLD</b> of Treated water from different STP/TTPs is being utilised for various purposes like rejuvenating/recharging of Lakes, Gardening, Industrial applications, construction purposes etc. Detailed statement is enclosed as <b>Annexure-1</b> .	100%	48.83%	207MLD (24.60%) gap is expected to be achieved by end of <b>December-2022</b> .  204 MLD (24.23%) gap is expected to be achieved by end of <b>December-2023</b> .		

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		<p>At present 430.50MLD is being utilised. Balance treated quantity will be taken Kaveri Neeravari Nigama Ltd(KNNL)-120MLD to Ramanagara District Lakes, Minor Irrigation Department-90MLD to Kolar District, KPCL Yelahanka plant-15MLD, KIADB-40MLD to Narasapura.</p> <p>Also KPCL, Bidadi are requesting for 1MLD from V. Valley</p> <p>To recharge/tap up the nearby lakes in the city.</p>				
	<p>a) Status of STPs in Cities/Towns other than Bengaluru.</p>	<p><b>A) Status of STPs:</b> There are 276 ULBs,(Excluding Bengalure) in Karnataka. Under Ground Drainage system with Sewage treatment plant provided in 76 Urban local bodies. The UGD system covered from 70% to 90 of the area. The UGD system with STPs are in progress in 55 Urban Local Bodies. The Directorate of Municipal Administration is implementing FSSSM in 55 Urban Local bodies. The UGD system with STPs OR FSSM in remaining 90 Urban Local bodies and providing UGD with STP in the, Un covered area of Urban Local Bodies will be taken up in phased manner based on availability of funds. It is proposed to achive this tarrget by 2026 subject to availability of funds.</p>	<p>100%</p>	<p>44%</p>	<p>2026</p>	<p>Sri S B Siddanaik, Chief Engineer (design and Monitoring) Mobile no. 9480813103</p>

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	b) Reuse of Treated Water in Cities/Towns other than Bengaluru.	<b>B) Reuse of Treated Water:</b> It is proposed to reuse the treated sewage for Industries and irrigation purpose. At present 3 MLD of treated sewage is being supplied to Janaki iron and steel industries in Bellary. Further a pre-feasibility report for reuse of treated water in Bellary, Chitradurga and Hubli-Dharwad is prepared for Rs 142.49 crores is prepared and being submitted to Government for approval	<b>100%</b>	<b>99%</b>	<b>2030</b>	

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**DETAIL OF EXISTING STPS - Zone/Area Wise Summary**

**Annexure - List of Existing STPs in Bengaluru (BWSSB)**

Sl. No	Name of the STP	Capacity in MLD	Location	Types of process for treating sewage	Drainage Zone	Average Inflow and treated in MLD	Reusing quantity	Used by / Disposed to
1	K&C valley	248	Belur Nagasandra (near Challaghatta)	Activated Sludge Process (ASP)- Secondary	K&C valley	210	2	Karnataka Golf Association
							208	Bellanduru Lake, For recharging 126 Lakes of Kolar district
2	K&C Valley	60	Belur Nagasandra (near Challaghatta)	ASP with power generation - Secondary	K&C valley	50	50	For recharging 126 Lakes of Kolar district
3	Lalbagh	1.5	Lalbagh kere	Activated aeration + plate settlers + UV disinfection - Tertiary	K&C valley	1.5	1.5	Horticulture department
4	Cubbon Park	4	Cubbon Park (upgraded)	Membrane Bio Reactor - Tertiary	K&C valley	4	4	Horticulture department, Rajbhavan, Hon'ble High Court, Bangalore Golf Course, Planatarium, War Memorial, CID, Vidhana Soudha, KPSC, KPWD, Civil Court
5	K.R.Puram Ph-I	20	Tambuchetti playa Road	UASB + Extended Aeration - Secondary	Hebbal	20	20	Vengaiana Kere
6	Yelemallappa Chetti kere	15	Yelemallappa Chetti kere	Sequential Batch Reactor - Secondary	Hebbal	13	13	Yelemallappa Chetti kere
7	Bellandur Amani kere	90	Vartur kere	Activated Sludge Process (ASP) - Secondary	K&C valley	60	50	For recharging 126 Lakes of Kolar district
8	Kadabeesanahalli Ph-I	50	Marathalli Outer Ring Road	Extended Aeration - Secondary	K&C valley	45	0	Presently letting into SWD - Proposed for future utilisation in KIADB Industrial Area at Narasapur with the completion of TTP at Narasapura
9	Kadugodi	6	Kadugodi	Sequential Batch Reactor - Secondary	K&C valley	5.5	0	Presently letting into SWD. Proposal : to HPCL 2 MLD increasing to 6 MLD with completion of pipeline work for which work is under process.
10	Halasuru	2	Halasuru Lake	Sequential Batch Reactor - Secondary	K&C valley	1.8	1.8	Halasuru Lake
11	Rajacanal - Ph-I	40	Geddalahalli near Hebbal	Extended Aeration - Secondary	Hebbal	40	40	35 MLD to recharge 65 tanks of Chikkaballapura 5 MLD to Devanahalli KIADB Industrial area
12	Hebbal	60	Nagavara kere	Activated Sludge Process (ASP) - Secondary	Hebbal	32	0	Presently to Nagavarkere. Proposal to recharge 65 tanks of Chikkaballapura
13	Jakkur	15	Jakkur kere	Upflow Aerobic Sludge Blanket (UASB) + Extended Aeration - Tertiary	Hebbal	15	0	For KPCL. KPCL yet to draw water
14	Yelahanka Ph-I	10	Allalassandra kere	Activated sludge Process (ASP) + filtration + Chlorination - Tertiary	Hebbal	8	5	M/s Kempegowda International Airport Limited, M/s Indian Tobacco Company, M/s Indian Air Force, M/s Bharath electronics Limited, M/s Rail Wheel Factory, Prestige, Emabassy and Excess treated water to Allalsandra Lake
15	Rajacanal	40	Geddalahalli near Hebbal	Sequential Batch Reactor Secondary	Hebbal	40	40	To recharge 65 tanks of Chikkaballapura

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16	Horamavu Agara	20	In between Kalkere and Horamavu Agara kere	Sequential Batch Reactor - Secondary	Hebbal	20	20	To recharge 65 tanks of Chikkaballapura
17	Nagasandra Ph-I	20	Near Madavara kere (near Tumkur Road)	Extended Aeration - Secondary	Vrishabhav athy	16	0	To SWD
18	Mallathahalli	5	Mallathahalli kere	Sequential Batch Reactor - Secondary	Vrishabhav athy	5	5	2.5 MLD to Malathalli Lake and 2.5 MLD to Ullal Lake
19	Nagasandra	20	Near Madavara kere (near Tumkur Road)	Sequential Batch Reactor - Secondary	Vrishabhav athy	9	0	To SWD
20	Chikkabanavara	5	Chikkabanavara kere	Sequential Batch Reactor - Secondary	Vrishabhav athy	4.5	0	To SWD
21	Mailasandra Ph-I	75	Mailasandra	Extended Aeration - Secondary	Vrishabhav athy	75	3	Bhagyalakshmi Farms and M/s Tangline Developers (Global Village). Balance to SWD.
22	V.Valley	180	Mysore Road	Two stage high rate trickling process - Secondary	Vrishabhav athy	80		10 MLD to tertiary plant, balance to SWD
	TTP : 60MLD		Mysore Road	Densdag - Tertiary	Vrishabhav athy		1	M/s. Arvind Mills, M/s Wonder Blues, M/s Nandi Economic Corridor Enterprises
23	Kempambudhi	1	N.R.Colony	Extended Aeration - Secondary	Vrishabhav athy	1	1	Kempambudi Lake recharge
24	Doddabele	20	Doddabele	Sequential Batch Reactor - Secondary	Vrishabhav athy	20	0	Presently to SWD.
25	Kengeri	60	Near Kengeri bus stand	Secondary-Activated Sludge Process - Secondary	Vrishabhav athy	40	0	Disposal sewer line linking work in progress.
26	Doddabele	40	Doddabele	Sequential Batch Reactor - Secondary	Vrishabhav athy	20	0	Presently to SWD.
	Sarakki	5	Near Sarakki Lake	Sequential Batch Reactor - Secondary	K&C valley	5	0	Presently to Sarakki Lake.
	<b>Total *</b>	<b>1112.5</b>				<b>841.3</b>	<b>430.5</b>	

\*As on 12-02-2020

As per Rule No. IX of BWSSB Act 1964 under Recycle water it indicates that where Recycled water is supplied from the treatment plants of Board, water charges shall be levied at the rates. The prevailing rates are as follows.

(i) Secondary treated water: (1) Rs. 10/- per KL for supply at the plant premises through lorry tankers (2) Rs. 15/- per KL for supply through pipeline subject to entire cost of the pipeline being borne by the beneficiaries.

(II) Tertiary Treated Water: (1) Rs. 15/- per KL for supply at the plant premises through lorry tankers. (2) Rs. 25/- per KL for supply through pipeline subject to entire cost of the pipeline being borne by the beneficiaries.

•Recently BWSSB has started supply of tertiary treated water through Tankers for non potable purpose @ Rs.360/- (6KL).

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## Compliance to Rejuvenation of Water Bodies

Sl. No	NGT Order dated:12.09.2019 & 07.01.2020	Implementation status				
1	2	3				
		Current Status (Compliance as on till date)	Desirable Level of Compliance in terms of statutes	Gap Between current status and desired levels	Proposal of attending the gap with time lines	Name and designation of designated officer for ensuring compliance to provisions under statute (Commissioner/ Director) with Mobile No.
1	Compliance to Rejuvenation of water bodies	The rejuvenation of water bodies will be undertaken as per the guidelines of Jal Shakti Abhiyan & AMRUT schemes	100%	70.72	Dec-2020	Santosh Patil Team Leader Cell No.+91-9448411996

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Compliance on prevention of illegal sand mining

Sl.No	SWM Rule clause	NGT order Dated:12.9.19 & 7.1.2020	Implementation status				
1	2	3	4				
Compliance on prevention of illegal sand mining							
			Current Status	Desirable level of Compliance in terms of statutes	Gap Between current status and desired levels	Proposal of attending the gap with time lines	Name and designation of designated officers for ensuring compliance under statutes (Commissioner/ Municipal Commissioner/ Chief Officer) with Mobile No.
1		Compliance to order dated: 24.7.2019 of Director of Mines and Geology Bengaluru in OA 606/2018.	Action taken to curb illegal sand mining and transportation in the State during the Current Financial year is as follows: 122 Illegal sand Mining cases has been identified, accordingly action been initiated as per law against the offenders. In this regard penalty of Rs. 84.04 lakhs have been collected and in 35 cases FIR has been filed, 842 cases of Illegal sand	100%	40 %	Within period of 12 Months from 31.03.2020. It is proposed to formulate the Karnataka Sand policy 2020 on par with enforcement and monitoring guidelines for Sand Mining issued by the MoEF on January 2020.	Dr. N. Shiva Shankar Director, Dept of Mines and Geology, Bengaluru. 7760022277

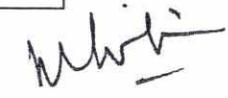
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			<p>transportation has been identified, and penalty of Rs.111.79 lakhs have been collected and 556 FIR cases has been filed and 51 cases of illegal sand storage have been identified, penalty of Rs. 10.79 lakhs have been collected and in 52 cases FIR has been filed.</p>		<p>With Implementation of New Sand Policy , sand will be available at affordable rate. The systematic and scientific sand removal will reduce illegal sand mining State is also planning to have Special enforcement squad to curb illegal mining, illegal transportation, storage and also action will be initiated for night surveillance by using night-vision drones.</p>	
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Dr. H. Shrinivasan, I.A.S.  
Director  
Dept. of Mines & Geology  
Bangalore - 01.



**Compliance to Ground Water Extraction/Recharge & Contamination**

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Annexure R7

Sl. No		NGT Order dated:12.09.2019	Implementation status				
1	2	3	4				
			Current Status	Desirable Level of Compliance in terms of statutes	Gap Between current status and desired levels	Proposal of attending the gap with time lines	Name and designation of designated officer for ensuring compliance to provisions under statute (Commissioner/ Director) with Mobile No.
1		Compliance to Ground Water Extraction/ Recharge	As per Groundwater Resources estimation 2017 more than 60% of groundwater is used for irrigation and 50% of State irrigation is from groundwater. The overall stage groundwater utilization is 70% against availability.	68% of Groundwater utilization against availability	2%	2025	Sri. B T Kantharaj Director I/c, Groundwater Directorate, Bangalore. Mb No. 9448319640

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**COMPLIANCE TO GROUND WATER EXTRACTION:-**

**Current Status:-**

- The Groundwater Directorate is carrying out the work of assessing the Groundwater Resources as per the Groundwater Estimation Methodology (GEM) given by the Groundwater Estimation Committee (GEC) since 1999.
- Based on the Groundwater Recharge and Groundwater Utilization, the areas are categorized into over exploited, critical, semi-critical and safe.

Sl No	Category	Groundwater Utilization/ withdrawal against groundwater recharge in %
1	Over Exploited	>100
2	Critical	90-100
3	Semi Critical	70-90
4	Safe	<70

- If we observe over a period of time the Over exploited taluks have gradually increased thus creating stress on groundwater availability. The below table shows the gradual increase in over exploited taluks from the results of previous groundwater assessment.

Year of Assessment	Over Exploited taluks	Critical taluks	Semi Critical taluks	Safe taluks	Mixed taluks	Stage of Groundwater Development in %
2004	22	NIL	NIL	51	102	70
2009	35	3	10	70	58	68
2011	30	6	7	70	63	64
2013	43	14	21	98	-	66
2017	45	8	26	97		70

- As per Groundwater Resources estimation 2017 more than 60% of groundwater is used for irrigation and 50% of State irrigation is from groundwater. The overall stage groundwater utilization is 70% against availability.
- In order to control over exploitation of groundwater, the State Government has enacted the Karnataka Groundwater (Regulation and control of Development and Management) Act 2011, Rules 2012. As per the section 10 of the Act 2011 the areas will be notified.
- There is a restriction to drill a new bore well in the notified taluks. As per section 11 of the Act 2011, prior permission from the appropriate authority should be taken to drill a new bore well in the notified area.

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- Registration of drilling rigs is made compulsory to drill bore well in any part of the State. The registration certificate is issued in form-7A by the Karnataka Groundwater Authority.
  - Any commercial user of groundwater for industry / infrastructure / mining / entertainment purposes must obtain permission / NOC from Karnataka Groundwater Authority (KGWA).

**COMPLIANCE TO GROUND WATER CONTAMINATION: -**

Not applicable to Groundwater Directorate.

**COMPLIANCE TO GROUND WATER RECHARGE: -**

**Current Status (Compliance as on 30<sup>th</sup> September- 2019): -**

- Various line departments in the supply side are involved in the construction of check dams, infiltration wells, under other various groundwater recharge structures. Groundwater directorate is giving technical assistance to these line departments for identifying suitable location for construction of Artificial Recharge Structures.
- Based on the recharge capacity, the industries / infrastructure / mining / entertainment units are issued NOC for groundwater withdrawal by KGWA and also follow the Act and Rules.
- To create awareness among public about the judicious usage of Ground water "Awareness Programmes" are conducted for Public and Students in Schools/Colleges.
- Awareness among public about conservation of groundwater is also created through media and newspaper.

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ANNEXURE - R8

List of Meetings by NGT-SLC(OA No. 606/2018, dated:16.01.2019)		
NGT-SLC meeting at State Level		
1	1st NGT-SLC meeting with all members	15.02.2019
2	2nd NGT-SLC meeting with all members	11.03.2019
3	3rd NGT-SLC meeting with all members	05.04.2019
4	4 <sup>th</sup> Meeting for Amendments of Plastic Ban Gazette Notification issued by FEE, GoK- reg.	27.09.2019
5	5 <sup>th</sup> Meeting on framing State Policy & Strategy on Solid Waste Management as per SWM Rules-2016- reg.	24.10.2019
6	6 <sup>th</sup> meeting on submission of Compliance report to the directions issued during first meeting held on 24.10.2019.	30.11.2019
7	7 <sup>th</sup> meeting on submission of status report to Hon'ble NGT, New Delhi on implementation of SWM Rules- 2016	02.12.2019
8	8 <sup>th</sup> Hearing meeting with BBMP officials, DUDC Bangalore (Urban), Chandapur TMC officials & complainant on illegal dumping of Solid Waste on agricultural land in Chandapur Town limits.	09.12.2019
BRUHAT BENGALURU MAHANAGAR PALIKE (BBMP)		
Sl.No.	Meeting	Date
1	1 <sup>st</sup> NGT-SLC review meeting with BRUHAT BENGALURU MAHANAGAR PALIKE & succeeding visits to MSW processing sitess	25.03.2019
2	2 <sup>nd</sup> NGT-SLC review meeting with BRUHAT BENGALURU MAHANAGAR PALIKE on implementation of Rule-17	11.04.2019
3	3 <sup>rd</sup> NGT-SLC consultation meeting with experts in SWM	14.04.2019
4	4 <sup>th</sup> NGT-SLC consultation meeting with TGC members of BRUHAT BENGALURU MAHANAGAR PALIKE	27.04.2019
5	5 <sup>th</sup> NGT-SLC meeting with Special Commissioner & Joint Commissioners of BRUHAT BENGALURU MAHANAGAR PALIKE	29.04.2019
6	6 <sup>th</sup> NGT-SLC consultation meeting with BRUHAT BENGALURU MAHANAGAR PALIKE Pourakarmikas union leaders	09.05.2019
7	7th NGT-SLC consultation meeting with Yelahanka constituency stakeholders	14.05.2019
8	8th NGT-SLC consultation meeting with Contractors of Vehicle Supply for SWM activity in BRUHAT BENGALURU MAHANAGAR PALIKE	24.05.2019
9	9th NGT-SLC consultation meeting with BRUHAT BENGALURU MAHANAGAR PALIKE East Zone stakeholders	27.05.2019
10	10 <sup>th</sup> Visit to MSW Processing Plant at Chikkanagamangala, Bangalore	30.06.2019
11	11th NGT-SLC consultation meeting with BRUHAT BENGALURU MAHANAGAR PALIKE South Zone stakeholders	21.07.2019

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12	12th NGT-SLC consultation meeting with BRUHAT BENGALURU MAHANAGAR PALIKE Officials to discuss on Hon'ble NGT order dated: 02.08.2019 in OA. No. 711/2018	13.08.2019
13	13th NGT-SLC consultation meeting with BRUHAT BENGALURU MAHANAGAR PALIKE councillors on implementation of SWM Rules-2016	17.08.2019
14	14th NGT-SLC consultation meeting with BRUHAT BENGALURU MAHANAGAR PALIKE RR Nagar & Dasarahalli Zones stakeholders meeting	20.08.2019
15	15th NGT-SLC consultation meeting with BRUHAT BENGALURU MAHANAGAR PALIKE JHIs/SHIs/Supervisors on implementation of SWM Rules-2016	28.08.2019
16	16th NGT-SLC consultation meeting with BBMP & Service providers on implementation of C & D Waste Management Rules-2016	06.09.2019
17	17th NGT-SLC consultation meeting with BBMP Empanelled BWCs & DWCs	21.09.2019
18	18 <sup>th</sup> NGT-SLC meeting with BBMP officials & Hon'ble Mayor on eradication of Plastic manufacturing units & products	24.09.2019
19	19 <sup>th</sup> Review of the progress made by the BBMP in the matter of Solid Waste Management as per Solid Waste Management Rules-2016 (referred to as SWM Rules - 2016)	13.11.2019
20	20 <sup>th</sup> Discussion on making Ward No. 18 & 19 and other wards as model wards for implementation of SWM Rules-2016 effectively- reg.	11.12.2019
21	21 <sup>st</sup> Meeting with Hon'ble Mayor, BBMP & other officials	21.12.2019
22	22 <sup>nd</sup> Mahadevapura Zone Stakeholders	04.01.2020
23	23 <sup>rd</sup> review meeting of implementation of SWM Rules-2016 by BBMP	06.02.2020
<b>District/Division wise</b>		
1	1st NGT-SLC review meeting of Belagavi Revenue Division meeting(07 Districts) & Visits to MSW processing sites	15.03.2019
2	2nd NGT-SLC review meeting of Dharwad District & Visits to MSW processing sites	01.05.2019 & 02.05.2019
3	3rd NGT-SLC review meeting of Ramanagar District & Visits to Hospitals	03.05.2019
4	4th NGT-SLC review meeting of Mysore District & Visits to MSW processing sites	08.05.2019
5	5th NGT-SLC review meeting of Mandya District & Visits to Hospital, MSW processing sites	18.05.2019
6	6th NGT-SLC review meeting of Tumakuru District & Visits to MSW processing sites	26.05.2019
7	7th NGT-SLC review meeting of Dharwad District & Visits to MSW processing sites	28.06.2019

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8	8th NGT-SLC review meeting of Bidar District& Hospital, MSW processing sites	11.07.2019
9	9th NGT-SLC review meeting of Kalaburagi District& Visits to MSW processing sites, BMW Incineration Plant	12.07.2019
10	10th NGT-SLC consultation meeting with Cement Industries in Kalaburagi District	12.07.2019
11	11th NGT-SLC review meeting of Davangere District& Visits to MSW processing sites	08.08.2019
12	12th NGT-SLC review meeting of Chitradurga District& Visits to MSW processing sites	09.08.2019
13	13th NGT-SLC review meeting of Dharwad District& Visit to Sankeshwar TMC	15.08.2019 16.08.2019
14	14th NGT-SLC review meeting of Belagavi district & Visit to Sankeshwar TMC	03.09.2019 02.09.2019
15	15th NGT-SLC review meeting of Dharwad District & Visit to KIMS Hospital on implementation of SWM Rules-2016 & BMW Management Rules-2016	07.09.2019
16	16th NGT-SLC review meeting Kalaburagi & Raichur District on implementation of SWM Rules-2016 & Inaugural function of Regional workshop on SS-2020	12.09.2019 13.09.2019
17	17 <sup>th</sup> Meeting with officials of KSPCB Hassan & DUDC on implementation of SWM Rules-2016	17.10.2019
18	18 <sup>th</sup> District Level Review meeting by National Green Tribunal- State Level Committee constituted as per NGT order OA.No. 606/2018, dated: 16.01.2019 on implementation of waste management rules-2016- reg.	20.10.2019
19	19 <sup>th</sup> District Level Review meeting by National Green Tribunal- State Level Committee constituted as per NGT order OA.No. 606/2018, dated: 16.01.2019 on implementation of waste management rules-2016- reg.	09.11.2019
20	20 <sup>th</sup> Meeting with DC,SP,CEO,ADC,AC & Commissioner/Chief Officers of all ULBs, RO, KSPCB	5.12.2019
21	21 <sup>st</sup> Chairing the Meeting & Workshop on directions issued by Hon'ble NGT, Principal Bench, New Delhi in OA No. 606/2018, 247/2017, 829/2018,141/2014 etc. related to implementation of SWM Rules -2016, PWM Rules -2016, C & D Waste Management Rules-2016 etc at Belgavi.	26.12.2019
22	22 <sup>st</sup> Meeting with RSEO, RO,KSPCB & Municipal Commissioner, Dandeli CMC & other officials followed by Field Visits.	01.01.2020
23	23 <sup>rd</sup> Chairing the Stakeholders Meeting on Implementation of SWM Rules-2016 at Belgavi.	06.01.2020
24	24 <sup>th</sup> review meeting on implementation of SWM Rules-2016 by Belgavi CC & filed visits to Nippani, Gokak & Savadatti-Yellamma towns.	24.01.2020 26.01.2020
25	25 <sup>th</sup> review meeting on implementation of SWM Rules-2016 in Bangalore(Rural) areas	06.02.2020

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Annexure-9

## Best Practices in ULBs of Karnataka

Sl. No.	Name of ULBs	Waste to Resource parameter	Best Practice Achieved	Remarks
1	Raichur CMC	Waste Coconut Shell fibre into Coir Rope	To maximise the re-use, & recycling of coconut waste, Using the coconut fibre extraction machine the coir fibre is extracted from the coconut shells and converted in coir rope. This coir can also be used for producing floor mats, aquarium filters, cordage and garden mulch.	The process of extraction is economical and the same is being projected to all ULBs
2	Bagalkot CMC	Waste Cooked Oil to Bio-Diesel	The ULB in association with Basaveshwara Engineering college producing a Bio-Diesel from waste cooked oil.  The ULB is buying waste cooked oil from street vendors, hotels, restaurants etc. at the cost of Rs.15/- per litre and by the process named "Esterification" {UCO(50 litre)+KaOH/NaOH(0.5 kg)+Ethanol(12.50 litre)} and producing Bio-Diesel upto 200 litre per day.	The Deputy Commissioner himself using this Bio-Diesel for his vehicle & the ULB is also using for vehicles of SWM Activity.  This practice is being widely adopted and the district administration insisted other ULBs in the district to setup the plant for the same.
3	Annigeri TMC	Legacy Waste Management	The ULB has made a mark in eradication of legacy waste. It was estimated that approximately 8,244.50 tonnes of legacy waste was accumulated from 2014.  Using the JCB and locally available screens of different sizes the ULB has segregated the fine & coarse particles through Bio-Augmentation of dumped waste and converted the waste into compost using vermi-composting method.	The ULB has saved huge cost to be incurred in eradication of legacy waste.
4	Navalgund TMC	100% Source Segregation	The ULB has achieved 100% door to door collection as well as source segregation through extensive IEC	The ULB has sold 3 tonnes of recyclables at the

			activities.  The waste is being collected in different streams in a bags hanged to Auto-Tippers and transported to Processing sites & DWCCs.	cost of Rs. 17,000/- and 4.6 tonnes of plastic was sent to JK Cements during Swachata Hi Seva
5	Shahapur CMC	100% Source Segregation	The ULB is collecting the waste in three streams and processing the wet waste (Approximately 1 tonne per day) and producing compost (300 to 400 kg per day) using vermi composting and windrow composting.  The segregated RDF is being sent to Wadi Cement Factory for co-processing.	The compost is used for local plantation purpose.
	Belagavi CC	Garbage Tracking System using Artificial Intelligence Technology	The Belagavi City Corporation has come out with an innovative practice adopting Artificial Intelligence in the SWM activity. 52 wards are fully covered using AI technology which helps to identify the type of waste, quantum of waste which is carried out from collection to the processing point.	The entire cost of the project is estimated at Rs. 60.00 Lakhs. This has been appreciated by Citizens, NGOs, SHGs, District Administration & efforts are being made to replicate in other cities/towns.
7	Mysore CC	Zero Waste Discharge ward	The Mysore City Corporation has setup a Waste processing Unit at Kumbarkoppallu ward. This is supported by the NGOs, SHGs, Active Citizen Groups and any quantity of waste is sent to landfill whatever is getting generated in the ward is getting either converted into a compost or connected to the value chain network yielding revenue to the corporation and has helped in reducing O & M burden on the corporation	This innovative Zero Waste Management ward was recognised by the GoI and was awarded first prize by MoHUA. Efforts are being made to replicate such innovative practices in other wards.
8	Haroogeri TMC	Use of Electric Vehicles in SWM activity	Battery operated autos are being used in the Haroogeri TMC for the collection & transportation of MSW in different streams. This has been found more economical	This has attracted other ULBs to use battery operated autos for SWM activities.

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			and helps ULB to run the SWM activity in a sustainable manner. If the diesel auto is used then, the cost is Rs. 6/-per km whereas battery operated vehicle is Rs. 0.17/- per km.	Apart from cost reduction, it is environmental friendly and can reach the outermost household through a narrow streets. Once charged, will run for 90 kms and for every recharge cost is Rs.6/- per unit.
9	Uttara Kannada District	100% Source Segregation	All the ULBs of Uttara Kannada District have started practicing source segregation with efficiency of 100%. This was made possible by involving all staff of the district administration irrespective of cadre. Each official was given a task to visit the processing unit/Dry waste collection centre & ascertain as to what percentage of MSW quantity is reaching to the plant in a separated manner. In case if any ward is found not practicing the same used to get corrected in the next turn and made ULBs to start practicing 100%. Because of which each ULB is generating revenue out of sale of recyclables and marketing rich compost manure in bulk/bag manner.	The compost used to get sold at Rs.6-8 /- per kg and there is a good demand for such MSW compost.
10	Davangere CC	Waste Resource to	Waste to Wealth concept is getting practiced in Davangere City Corporation. Various bi-products using waste tetra pack & other materials are produced such as tables, Garden Sofas, Outdood Chairs, Floor Tiles, Cladding Tiles, Partition Items, insulating materials etc. Apart from the above, a new initiative has been taken up by the ULB wherein Vermi-Composting shed is established by ULB whereas running the Vermi-	

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			Composting plant has been outsourced to third party . By doing so it is earning good revenue to the ULB out of sale of compost.	
11	Pavagada TMC	Decentralized Processing of Waste	The Pavagada TMC has devised decentralized way of treating wet waste & converting it into compost. A simple methodology is adopted establishing compost centre manufacturing centre using Bamboos. A small space of 1.25 m X 1.25 m is selected to establish compost processing plant using Bamboos. The cost of the unit is estimated at Rs. 6,000 & no odour, smell, stinct is reported by any of the households.	

Unit  
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ANNEXURE-10

Annexure-10

Model city Data																	
Sl. No	ULB Name	ULB Type	Ward No	Door to Door Collection				Source segregation as on April-2019	Source segregation as on Feb-2020	Progress as on April-19	Progress as on Feb-2020	Waste Processing as on April-2019		Waste Processing as on Feb-2020		Progress as on April-19	Progress as on Feb-2020
				No of wards with 100% D-D Collection as on April-2019	No of wards with 100% D-D Collection as on Feb-2020	Progress as on April-19	Progress as on Feb-2020	No of wards with 100% segregation	No of wards with 100% segregation			MSW Generated (in TPD)	Waste Processed (in TPD)	MSW Generated (in TPD)	Waste Processed (in TPD)		
1	Mysore	CC	65	65	65	100	100	52	65	80	100	425	235	425	235	55.3	55.3
2	Mangalore	CC	60	60	60	100	100	15	25	25	41.7	321	252	321	252	78.5	78.5
3	Belagavi	CC	58	55	58	94.83	100	0	32	0	55.17	255	240	245	245	94.1	100.0
4	Raichur	CMC	35	35	35	100	100	0	13	0	37.14	90	4	100	100	4.4	100.0
5	Karwar	CMC	31	31	31	100	100	31	31	100	100.00	27	25	27	25	92.6	92.6
6	Hunsur	CMC	31	31	31	100	100	0	10	0	32.26	23	2	23	8	8.7	34.8
7	Ullal	CMC	31	31	31	100	100	24	28	77.4	90.32	16.5	0	17.5	8	0.0	45.7
Total			311	308	311	99.04	100	122	204	39.23	65.59	1157.5	758	1158.5	873	65.5	75.4

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Annexure-11

**Details of Trainings/Workshops conducted during the year  
2019-20 (Upto January 2020)**

Sl.No	Date	Details of training/Workshop	Target Participants	No.Of participants	Venue
01.	21-05-2019	Common Bio-Medical Treatment Plant Third Party Auditing	Staff of Common Bio-Medical Treatment Plant	25	Medicare CBMTWF
02.	04-06-2019	Workshop on Plastic Ban	Staff of EMPRI, Bisleri Staff, KSPCB Staff, Eco club School Children & Teacher and Public	200	Bisleri International Pvt Ltd, Devanahalli Bengaluru Rural District
03.	12-06-2019	Awareness through cleaning activity in Kannamangala Lake	Staff of Bisleri International Pvt Ltd, Devanahalli, Indo- Tibetan border Border force and Students of Higher Primary school of Kannamangala	150	Kannamangala Lake, Devanahally taluk
04.	05-06-2019	World Environment day celebration 2019	Ministers, Staff of EMPRI, KSPCB Staff, Eco club School Children & Teachers and Public	1000+	Chowdaiah Memorial Hall, Bengaluru
05.	15-06-2019	Workshop on Plastic Ban	School Children, Teachers, Staff of EMPRI and Public	1000+	Government Model Higher Primary School & Government High School Mallasandra Village Bengaluru North Dist.
06.	05-07-2019	Workshop on Plastic Ban	Represented from NGO members of Karnataka plastic Association , BBMP officers and staff	1000+	Town hall, J.C road Bangalore

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07.	20-07-2019	Workshop on Plastic Ban.Notification - 2016	Members of Lions club of bangalore west icons	75	Inspire India Meeting hall, Gandhi bazar Bangalore
08.	22-07-2019	Training program on Plastic ban notification 2016, Solid Waste Management notification 2016, Bio-Medical waste management -2016 and E - waste management	Enforcement Officers from Various dept.	74	V.S Acharaya conference hall, Manipal , Udupi
09.	26-07-2019	Training program on Plastic ban notification 2016, Solid Waste Management , notification 2016,	Enforcement Officers from Various dept	147	Taluk Office Meeting Hall , Ramanagr
10	31-07-2019	Common Bio-Medical Treatment Plant Third Party Auditing	Staff of Common Bio-Medical Treatment Plant	25	Maridi CBMWTF
11.	22-08-2019	Training program on Climate Change Plastic ban notification 2016, Solid Waste Management notification 2016 and Bio-Medical waste management - 2016	Students of JSS College of Higher studies	111	JSS College of Higher studies, Mysore
12.	27-08-2019	Exhibition on Sustainable development goals Organized by: Planning and Statistics department	Department officers & Staff, NGO's and General Public	1000+	Freedom park ground ,Bangalore

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13.	07-09-2019	Training program on Environmental Laws and Waste Management	Officers from HAL BIAL , BEL staff from Various industries	51	Prakruti Samsthe, Sadashiva nagar
14.	12-09-2019	Training program on Environmental Laws and Waste Management	Officers and Staff of DMA and Sugar Industry, Textile industry and Staff of Service Station	104	Agriculture University Conference Hall, Vijayapura
15.	12-09-2019	Plastic Banned Items Alternative Exhibition	Various govt officers and Staff, School Students, Vendors, General Public	5000+	Freedom park ground ,Bangalore
16.	21-09-2019	Training Program on Karnataka State Action Plan on Climate Change	Officers and Staff of line 3depts....	33	Kumara Krupa Guest House , Bangalore
17.	27-09-2019	Training Program, on Bio-Medical waste management Rules -2016	Officers and Staff of Bangalore Centre Health care establishments	33	Prakruti Samsthe, Sadashiva nagar
18.	01-10-2019	NGC District Nodal Officer Workshop	Nodal officer from various district	50	Kumara Krupa Guest House , Bangalore
19.	04-10-2019	Training program on Environmental Laws	SJP polytechnic civil dpmt students	61	SJP Polytechnic, Bangalore
20.	11-10-2019	Training program on Plastic ban notification 2016,	Sacred Heart Girls School Students	300+	Sacred Heart Girls School
21.	12-10-2019	Training program on Plastic ban notification 2016, Solid Waste Management	Shantinikethan Residence welfare Association members	32	Shantinikethan Residence welfare Association, Bangalore
22.	22-10-2019	Training Program on Climate Change	Officers from Various dpt	35	Tejaswi meeting hall , KSPCB

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23.	25-10-2019	Training Program on Hazardous waste management rules - 2016	Staff from Industries	25	Prakruti Samsthe, Sadashiva nagar
24.	30-10-2019	Training Program on Climate Change	Officers from Various dpt	49	Tejaswi meeting hall , KSPCB
25.	05-11- 2019	Training Program on Climate Change	Officers from Various dpt	51	Tejaswi meeting hall , KSPCB
26.	11-11-2019	Green Skill Development training program	Science graduates	20	Conference hall, EMPRI
27.	13-11-2019	Training Program on Plastic ban	Sri Sai Ram Engineering College Students	80	Sri Sai Ram Engineering College
28.	17-11-2019	Training Program on hazardous waste Management	Drivers	60	Prakruti Samsthe, Sadashiva nagar
29.	18-11-2019	Training Program on Solid Waste Management -2016	RV College Engineering students	56	RV College of Engineering
30.	22-11-2019	Training Program on Climate Change	Officers from Various dpt	43	Tejaswi meeting hall , KSPCB
31.	26-11-2019	Training g Program on Plastic Ban Notification -2016	Office bearers and members of Basavanagudi merchants forum and Students of Acharya patashala	150	Party hall, Sri sai jewel palace, DVG road, Basavanagudi , Bangalore
32.	29-11-2019	Training Program on Climate Change	Officers from Various dpt	52	Tejaswi meeting hall , KSPCB
33.	03-12-2019	Training Program on Climate Change	Officers from Various dpt	34	Tejaswi meeting hall , KSPCB
34.	13-12-2019	Training on Plastic ban notification 2016 and Solid Waste management Notification -2016	National Restaurant Authorities members	59	Indiranagar, Bangalore

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35.	30-12-2019	Training on Bio-medical waste management	Medical and Para - Medical staff	30	Prakruti Samsthe, Sadashiva nagar
36.	30-12-2019	ToT on NGC program Activities	NGC Program assistants at district level	32	EMPRI
37.	04-01-2020	Construction and Demolition Waste Management	Industries , Builders, Resident welfare association members	30	Prakruti Samsthe, Sadashiva nagar
38.	22-01-2020	Training Program Waste Management Rules -2016	Officers and Staff of Urban Local Bodies of Shivamogga district	54	Shivamogga
39.	3-01-2020 to 29.01.2020	District / Taluk Level Training Program (DLTP & TLTP) "National Green corps, Swachatha Action Plan (SAP)- Creation of awareness on Solid waste Management & Plastic Ban , Afforestation in the context of Climate change"	Eco-club school teachers	68 Trainings X60 Participants in each Training =4080	34 Educational Districts
Total	106 Trainings			14,411 Participants	

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Annexure-12<sup>R</sup>

S.no	Non-compliance and type of Waste Generator	Penalty/ fine for the first offence	Penalty for the second and subsequent offence
<b>Municipal Corporations</b>			
1.	Littering, spitting, urinating, open defecating or committing any other acts of Public Nuisance	Rs. 200	Rs. 300
2.	Failure to segregate Solid Waste according to these Bye-laws by the Bulk Waste Generators.	Rs. 1000	Rs. 2000
3.	Failure to segregate and/or handover Solid Waste according to these Bye-laws by Waste Generators who are not Bulk Waste Generators.	Rs. 100	Rs. 150
4.	Failure to store and/or deliver Construction and Demolition Waste in a segregated manner or dumping of Construction and Demolition Waste	Rs. 1000/tonne,	Rs. 2000/tonne
5.	Disposal of Solid Waste by burning, dumping and/or unauthorised burial by a Bulk Waste Generator*	Rs. 25,000	
6.	Disposal of Solid Waste by burning, dumping and/or unauthorised burial by any Waste Generator who is not a Bulk Waste Generator*	Rs. 5000	
7.	Failure to deliver (non-household) fish, poultry and slaughterhouse waste in a segregated manner as specified in the Bye-laws or dumping of (non-household) fish, poultry and slaughterhouse waste in community bin, Receptacle, public place or any other unauthorised place.	Rs. 1000	Rs. 1500
8.	For a Street Vendor without a container/waste basket and/or who does not deliver Solid Waste in a segregated manner as specified in the Bye-laws	Rs. 200	Rs. 300
9.	Issuance of false self-declaration under Chapter VII of the Bye-laws to avoid being classified as a Bulk Waste Generator	Rs. 10,000	
10.	Failure to comply with any lawful directions issued by the Commissioner to ensure cleanliness and hygiene of Road, Bus Station, Railway Station, Street, playground, Park and other	Rs. 300	Rs. 500

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Annexure-12

	premises of public utility		
11.	Irregular deposit of rubbish or filth or any solid matter	Rs. 100	Rs. 200
12.	Unauthorised dumping of C&D waste	Rs. 3000	Rs. 5000
* As per NGT directions dated 15-3-2019 & 24-04-2019 with regard OA no 606 of 2018			

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S.no	Non-compliance and type	Penalty/ fine for	Penalty for the
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	of Waste Generator	the first offence		second and subsequent offence		
		ULBs	CMC	TMC/TP	CMC	TMC/TP
13.	Littering, spitting, urinating, open defecating or committing any other acts of Public Nuisance		Rs. 100	Rs. 50 ✓	Rs. 150	Rs. 100
14.	Failure to segregate Solid Waste according to these Bye-laws by the Bulk Waste Generators.		Rs. 500	Rs. 200	Rs. 750	Rs. 300
15.	Failure to segregate and/or handover Solid Waste according to these Bye-laws by Waste Generators who are not Bulk Waste Generators.		Rs. 50	Rs. 25	Rs. 75	Rs. 50
16.	Failure to store and/or deliver Construction and Demolition Waste in a segregated manner or dumping of Construction and Demolition Waste		Rs. 500/ton ne,	Rs. 250/ton ne	-	-
17.	Disposal of Solid Waste by burning, dumping and/or unauthorised burial by a Bulk Waste Generator*	Rs. 25,000				
18.	Disposal of Solid Waste by burning, dumping and/or unauthorised burial by any Waste Generator who is not a Bulk Waste Generator*	Rs. 5000				
19.	Failure to deliver (non-household) fish, poultry and slaughterhouse waste in a segregated manner as specified in the Bye-laws or dumping of (non-household) fish, poultry and slaughterhouse waste in community bin, Receptacle, public place or any other unauthorised place.		Rs. 100	Rs. 50	Rs. 150	Rs. 100
20.	For a Street Vendor without a container/waste basket and/or who does not deliver Solid Waste in a segregated manner as specified in the Bye-laws		Rs. 50	Rs. 25	Rs. 100	Rs. 50

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21.	Issuance of false self-declaration under Chapter VII of the Bye-laws to avoid being classified as a Bulk Waste Generator	Rs. 3000	Rs. 1000	-	-
22.	Failure to comply with any lawful directions issued by the Commissioner to ensure cleanliness and hygiene of Road, Bus Station, Railway Station, Street, playground, Park and other premises of public utility	Rs. 100	Rs. 50	Rs. 200	Rs. 100
23.	Irregular deposit of rubbish or filth or any solid matter	Rs. 100	Rs. 50	Rs. 200	Rs. 100
24.	Unauthorised dumping of C&D waste	Rs. 1000	Rs. 500	Rs. 2000	Rs. 1000
* As per NGT directions dated 15-3-2019 & 24-04-2019 with regard OA no 606 of 2018					

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## Annexure-R13

**Details of Workshops conducted by Rural Development & Panchayat Raj  
Department**

Sl. No.	Type of Stake holders	No of Stake holders Participated
1	CEOs	56
2	Nodal Officers and Line Department Officials (WCD\ HFW\ DHO/ DDPIs)	142
3	EOs/ ADs/ CDPOs/ BEOs/ THOs/ BRPs/ CRPs/ BHEos	213
4	PDOs	1840
5	PRI Members and Community Leaders (Presidents/ VPs/ Members –GP/TP/ZP)	5135
6	VWSC Members	11586
7	Engineers (EEs/AEEs/AEs/JEs)	198
8	Chemist/ Lab Technicians/ Assistants	68
10	State and District Consultants	368
11	Master Masons	248
12	NGOs	126
13	Swachhagrahis	28,000
14	Grassroots Level Workers (ASHA, AW, CBOs etc.,)	5104
Total		53084

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Annexure - R14

**Best Practices by Rural Drinking Water and Sanitation Department  
Solid and Liquid Waste Management**

District	Taluk	S.No	Gram Panchayat	Details of Solid and Liquid Waste Management Best practice			
				Collection & Transportation	Liquid Waste Management		
Bengaluru Urban	Bangalore North	1	Doodajala	Collection & Transportation	Liquid Waste Management		
	Bangalore North	2	Rajankunte	Collection & Transportation	Dry Waste Collection Center		
Bengaluru Rural	Devanahalli	3	Aneshwara	Collection & Transportation	Dry Waste Collection Center	Composting	
	Doddaballapur	4	Bashettihalli	Collection & Transportation	Dry Waste Collection Center	Composting	Gobargas
	Nelamangal	5	Harishinakunte	Collection & Transportation	Dry Waste Collection Center	Composting	
		6	Sompura	Collection & Transportation	Dry Waste Collection Center	Composting	
Shivamoga	Hosnagara	7	Ripponpete	Collection & Transportation	Dry Waste Collection Center	Composting	
Kolar	Mulbagal	8	Uttanuru	Collection & Transportation	Dry Waste Collection Center		
Kodagu	Madikeri	9	Benguru	Collection & Transportation	Dry Waste Collection Center		
	Somavarpete	10	Chowdlu	Collection & Transportation	Dry Waste Collection Center		
		11	Nanjarayapatna	Collection & Transportation	Dry Waste Collection Center		
		12	Kodlipete	Collection & Transportation	Dry Waste Collection Center		
		13	Bettadhalli	Collection &	Dry Waste		

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District	Taluk	S.No	Gram Panchayat	Details of Solid and Liquid Waste Management Best practice			
	Virajpete			Transportation	Collection Center		
		14	Balele	Collection & Transportation	Dry Waste Collection Center		
		15	Ponnappa santhe	Collection & Transportation	Dry Waste Collection Center		
		16	Palibetta	Collection & Transportation	Dry Waste Collection Center		
		17	Ponnampete	Collection & Transportation	Dry Waste Collection Center		
		18	Kutta	Collection & Transportation	Dry Waste Collection Center	Composting	
		19	Gonikoppa	Collection & Transportation	Dry Waste Collection Center		
Mangalore	Mangalore	20	Menabettu	Composting	Collection of Dry waste	Seggregation	
		21	Kinnigoli	Liquid waste treatment plant			
	Bantaval	22	Gultamajulu	Liquid waste treatment plant			
	Sullia	23	Aranthodu	Collection of Dry waste		Seggregation	
	Belthanagdi	24	Laila	Collection & Transportation	Dry Waste Collection Center	Composting	
		25	Dharmasthala	Collection & Transportation	Collection of Dry waste	Composting	Bio gas plant in ITDP Hostel
Mysuru	T. Narsipura	26	Talakadu	Collection and Transportation & Good	Dry Waste Collection Center		

WVA

District	Taluk	S.No	Gram Panchayat	Details of Solid and Liquid Waste Management Best practice			
				Building Construction			
Udupi	Udupi	27	Vararballi	Collection & Transportation	Dry Waste and wet waste Collection Center	Composting	Biogas
		28	Badagabettu	Collection & Transportation	Dry Waste and wet waste Collection Center	Composting	...
		29	Hejamaadi	Collection & Transportation	Dry Waste Collection Center	...	..
	Kundapura	30	Vandse	Collection & Transportation	Dry Waste and wet waste Collection Center	Composting	..
		31	Maravanthe	Collection & Transportation	Dry Waste and wet waste Collection Center	Composting	...
		32	Kolluru	Collection & Transportation	Dry Waste Collection Center		
		33	Thrasi	Collection & Transportation	Dry Waste and wet waste Collection Center	Composting	..
	Karkala	34	Hebri	Collection & Transportation	Dry Waste Collection Center	...	..
		35	Nitte	Collection & Transportation	Dry Waste Collection Center	Composting	
		36	Mudukuru	Collection & Transportation	Dry Waste Collection Center	....	..
	Bagalakote	Bilgi	37	Yadalli	Collection & Transportation	Dry Waste Collection Center	

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District	Taluk	S.No	Gram Panchayat	Details of Solid and Liquid Waste Management Best practice			
				Collection & Transportation	Dry Waste Collection Center	Seggregation	
Belagavi	Hukkeri	38	Hebbala	Collection & Transportation	Dry Waste Collection Center	Seggregation	
	Khanapur	39	Devalatti	Collection & Transportation	Dry Waste Collection Center	Seggregation	
		40	Nandgadh	Collection & Transportation	Dry Waste Collection Center	Seggregation	
Dharwad	Hubli	41	Anchatgeri	Collection & Transportation	Dry Waste Collection Center		
Gadag	Gadag	42	Hulkoti	STP	LWM		
Haveri	Ranebennur	43	Thummanakatti	Collection & Transportation	Dry Waste Collection Center-Temporary Building		
		44	Kavaletthu	Collection & Transportation	Dry Waste Collection Center-Temporary Building		
Uttara kannada	Kumta	45	Gokarna	Collection & Transportation	Dry Waste Collection Center		
	Huliyala	46	Mangalavada	Collection & Transportation	Dry Waste Collection Center		
	Karwar	47	Chittakula	Collection & Transportation	Dry Waste Collection Center		
	Kumta	48	Nadamaskeri	Collection & Transportation	Dry Waste Collection Center		
Kalaburagi	Chittapur	49	Ravoor	Collection & Transportation	Dry Waste Collection Center		
Koppala	Koppala	50	Hulagi multi GP	Collection &	Dry Waste	Composting	

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District	Taluk	S.No	Gram Panchayat	Details of Solid and Liquid Waste Management Best practice			
			swm unit	Transportation	Collection Center		

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**S. ARIKRISHNAN**

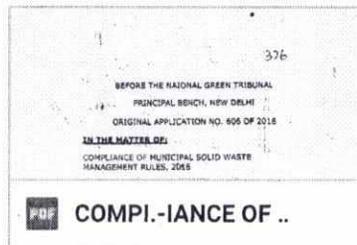
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BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH AT NEW DELHI

ORIGINAL APPLICATION 606 OF 2018

IN THE MATTER OF:-

compliance OF MSW M. R. 1 of 2016

.....

... APPLICANT

VERSUS

.....

...RESPONDENTS

PROOF OF SERVICE

S. NO.	ADVOCATE NAME	SIGNATURES
1		
2		
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