

IN THE HON'BLE NATIONAL GREEN TRIBUNAL

ORIGINAL APPLICATION NO.606 OF 2018

BETWEEN:

..... PETITIONERS

AND:

CPCB and OTHERS RESPONDENTS

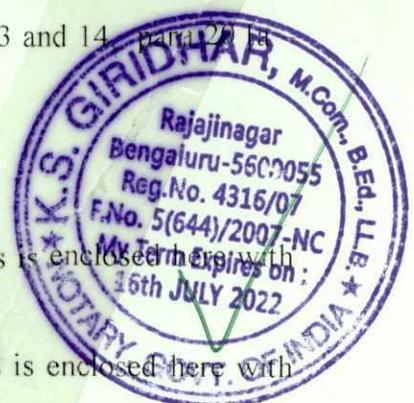
AFFIDAVIT FILED BY THE CHIEF SECRETARY TO GOVERNMENT OF KARNATAKA – RESPONDENT

I, T M Vijay Bhaskar, S/o. Late. Sri. T. R. Mahadeva Naidu aged about 58 years, presently, working as Chief Secretary, Government of Karnataka, do hereby solemnly affirm and State on oath as follows :-

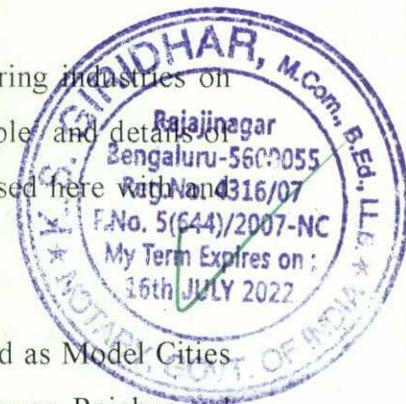
1. I submit that I have been working as Chief Secretary, Government of Karnataka since **July 2018** and in my official capacity and as verifiable from official records maintained with Government of Karnataka, as also the information provided by various departments of Government of Karnataka, I am familiar 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 cordination 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, directions of Hon'ble Tribunal with respect to OA 606/2018 are being adopted in all the 30 districts of the State.
4. I respectfully submit the abstract of implementation status of SWM, PWM, BMW Rules-2016 in 279 Urban Local Bodies(in 6,609 wards), 6,022 Gram Panchayaths and 23,259 Health Care facilities along with implementation status of other issues mentioned in Hon'ble NGT order dated:15-3-2019 (page 13 and 14, para 20 a, b, c, d, e, f, g, h) are detailed below;

▪ **Para 20(a):**

- I. Compliance to SWM Rules 2016 in urban areas is enclosed here with and marked as Annexure-R1.
- II. Compliance to SWM Rules 2016 in rural areas is enclosed here with and marked as Annexure-R2.



- III. Compliance to SWM Rules 2016 by Karnataka State Pollution Control Board is enclosed here with and marked as Annexure-R3.
- IV. Compliance to PWM Rules 2016 in urban areas is enclosed here with and marked as Annexure-R4.
- V. Compliance to PWM Rules 2016 by Karnataka State Pollution Control Board is enclosed here with and marked as Annexure-R5.
- VI. Compliance to BMW Rules 2016 in the State is enclosed here with and marked as Annexure-R6.
- VII. Compliance to BMW Rules 2016 by Karnataka State Pollution Control Board is enclosed here with and marked as Annexure-R7.
- **Para 20(b):** Compliance to functioning of Committees constituted by this Order is enclosed here with and marked as Annexure-R8.
 - **Para 20(c):** Compliance to Hon'ble NGT order dated 20.09.2018 in the News Item published in "The Hindu" authored by Shri Jacob Koshy titled "More river stretches are critically polluted (OA No 673/2018) is enclosed here with and marked as Annexure-R9.
 - **Para 20(d):** Compliance to Status of functioning of Committees constituted in News Item published in "Times of India" Authored by Shri Vishwa Mohan Titled "NCAP with multiple timelines to clear Air in 102 cities released around Aug 15" dated 08.10.2018 is enclosed here with and marked as Annexure-R10.
 - **Para 20(e):** Compliance to Status of Action Plan with regard to identification of polluted industrial clusters in O.A.No.1038/2018, news item published in "The Asian Age" Authored by Sanjay Kaw Titled "CPCB to rank industrial units on pollution levels" dated 13.12.2018 is enclosed here with and marked as Annexure-R11.
 - **Para 20(f):** Status of compliance of the directions passed in OA No.173 of 2018, Sudarsan Das V/s. State of West Bengal and Others, Order dated 4.9.2018 Original Application No. 173/2018 (Earlier O.A. No. 89/2017 (EZ) Sudarsan Das Vs. State of West Bengal and Ors. - Matter pertains to State of Odisha and West Bengal.
 - **Para 20(g):** Compliance to Total amount collected from erring industries on the basis of 'Polluter Pays Principle', 'Precautionary Principle' and details of utilization of funds collected during the year 2018 is enclosed here with and marked as Annexure-R12.
 - **Para 20(h):**
 - I. Mangalore, Mysore and Belagavi have been identified as Model Cities in the first phase under major city category, and Karwar, Raichur and Hunsur under major town category and will be notified soon after the Model Code of Conduct period comes to an end.
 - II. 90 Gram Panchayaths have been proposed for developing as model GPs as per the list enclosed here with and marked as Annexure-R13.



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- III. Compliance to SWM Rules 2016 by Karnataka State Pollution Control Board is enclosed here with and marked as Annexure-R3.
- IV. Compliance to PWM Rules 2016 in urban areas is enclosed here with and marked as Annexure-R4.
- V. Compliance to PWM Rules 2016 by Karnataka State Pollution Control Board is enclosed here with and marked as Annexure-R5.
- VI. Compliance to BMW Rules 2016 in the State is enclosed here with and marked as Annexure-R6.
- VII. Compliance to BMW Rules 2016 by Karnataka State Pollution Control Board is enclosed here with and marked as Annexure-R7.
- **Para 20(b):** Compliance to functioning of Committees constituted by this Order is enclosed here with and marked as Annexure-R8.
 - **Para 20(c):** Compliance to Hon'ble NGT order dated 20.09.2018 in the News Item published in "The Hindu" authored by Shri Jacob Koshy titled "More river stretches are critically polluted (OA No 673/2018) is enclosed here with and marked as Annexure-R9.
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 - **Para 20(h):**
 - I. Mangalore, Mysore and Belagavi have been identified as Model Cities in the first phase under major city category, and Karwar, Raichur and Hunsur under major town category and will be notified soon after the Model Code of Conduct period comes to an end.



II. 90 Gram Panchayaths have been proposed for developing as model GPs as per the list enclosed here with and marked as Annexure-R13.

5. I respectfully submit that, several significant achievements have been made by the State of Karnataka in the field of solid, plastic and bio medical waste management as detailed below:

URBAN DEVELOPMENT DEPARTMENT

1. In Swachh Survekshan 2019, 6 Urban Local Bodies of Karnataka bagged awards. **Mysore City Corporation stood 3rd in National Ranking and Periyapatna TP was awarded as No. 1 Cleanest City in South Zone.**
2. Urban Karnataka generates approximately 11,085 TPD of MSW out of which 9866 TPD is collected and the efficiency is about 90%.
3. **5605 wards out of total 6609 wards** have achieved 100% Door to Door collection and the efficiency is about 85%.
4. **Suitable lands for scientific processing and disposal** of MSW for 205 Urban Local Bodies and basic infrastructural facilities have been developed.
5. 3494 TPD of MSW is processed yielding 370 TPD of manure and **generates revenue of Rs. 2.55 crore/annum** from sale proceeds.
6. **SWM user fee is levied in 236 Urban Local Bodies**, which amounts to Rs. 121.03 crores annually.
7. **171 Environmental Engineers** were recruited to all City Corporations, City Municipal Councils and Town Municipal Councils explicitly to oversee implementation of SWM Rules.
8. In order to identify the best practices, State has introduced ranking of Urban Local Bodies based on performance in SWM and sanitation sector and incentive in the form of performance grants to encourage the Urban Local Bodies through **"Uttham Swacch Nagar"** award.
9. **"Uttara Kannada" district in Karnataka has been made as a model district** by achieving more than 95% source segregation and 91% of waste processing.
10. **As a part of Green initiative, Karnataka State adopted the use of electrically operated vehicles in few Urban Local Bodies** for door to door collection. six Biomethanisation plants are established which generate about 201 KW of power every day.
11. Further, as an innovative concept, producing **"Bio Diesel from used cooking oil"** has been taken up at Bagalkot CMC. About 100 Litres of Bio-diesel is produced every day. The said diesel is used for the ULB and District administration vehicles.
12. In order to bring a sense of pride in Pourakarmikas (PKs), 512 PKs have been sent to Singapore for field visit.

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13. As a positive step towards Pourakarmika welfare, PKs outsourcing is stopped. PKs are either appointed through direct recruitment or taken through direct payment basis. Breakfast facility to PKs is provided by Urban Local Bodies.
14. 2420 waste pickers have been engaged in waste management in the State.
15. Government of Karnataka has banned use of packaged mineral water bottle and disposables in all its offices and meetings.
16. All the 279 Urban Local Bodies have declared themselves as open Defecation Free (OPEN DEFICATION FREE) cities, out of which 203 Urban Local Bodies have been certified as OPEN DEFICATION FREE by third party inspection agency.
17. 55 Faecal Sludge and Septage Management (FSSM) plants with an estimated capacity of 512 MLD costing about Rs.184 Crores are proposed to be set up in urban areas.

BRUHATH BENGALURU MAHANAGARAPALIKE (BBMP):

1. Following the Hon'ble High Court directive on the removal of flex banners and hoardings in the City of Bangalore, BBMP Council on 06-08-2018 passed a resolution **banning flexes, banners and buntings, illegal advertisement hoardings**, wall-writing and posters for one year across all its 198 wards. The ban was approved keeping mind the illegal flex and banner menace leading to increasing number of road accidents due to motorists' distraction and impact on visual aesthetics of public spaces.
2. BRUHATH BANGALURU MAHANAGAR PALIKE has established seven(07) **MSW processing plants at a cost of Rs.440 crore with funding from Government of Karnataka**. These 7 plants have a design capacity to handle 2300 MT of mixed waste per day. However, these plants are now receiving only segregated wet waste with an effective wet waste handling capacity of 1,530 MT per day. Over 26,000 MT of compost is generated annually from these plants.
3. **The landfills at Bagalur and Mittaganahalli have been scientifically capped** and these capped areas have been developed into garden landscapes. As part of the ongoing environmental monitoring measures, **passive gas venting and leachate monitoring wells have been provided for**, both the sites have been inspected by officials of PCB, SLC of NGT and other monitoring authorities and have been appreciated.
4. BRUHATH BANGALURU MAHANAGAR PALIKE has **two Leachate Treatment Plants (LTPs)** at Doddabidarakallu Waste Processing Plant and Bellahalli Landfill **with a combined capacity of 150 KLD**. The LTP at Bellahalli uses state of the art zero liquid discharge technology to



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convert landfill leachate into clean water using boom tube resonator based technology. Recently, the technology was recognised as one of top 30 case studies in the special edition of Smart Water and Waste World Magazine.

5. Of the total of about 28,000 MT of REFUSED DERIVED FUEL (RDF) that has been produced till date, out of which **26,500 MT RDF has been transported for use as an alternate fuel in cement factories.** The cost of transportation was borne by the Cement factories out of their CSR fund.
6. In order to remove dust from kerbsides and medians along 1,400 km of Major Roads (Arterial and Sub-Arterial Roads), BRUHAT BANGALURU MAHANAGAR PALIKE has **procured 8 truck mounted mechanical sweepers and 1 ride-on mechanical sweeper.** These have been deployed on BRUHAT BANGALURU MAHANAGAR PALIKE roads for the past 2 years now. To enhance the effectiveness and coverage, in addition to existing numbers, **another 17 mechanical sweepers have been purchased** by the City Corporation and they would be deployed by May 2019. To further augment this fleet, it is proposed to hire **17 more mechanical sweepers on rental basis** thus ensuring that the entire stretch of major roads are swept mechanically on a periodic basis.
7. Bengaluru **has invested Rs.76 crore for setting up 50 Mini Transfer Stations** to shift the solid waste from tippers to compactors in a closed facility rather than in the open. These are now in the implementation phase. Once completed, these Mini Transfer Stations will aid in optimising the primary collection efficiencies at the ward level and also help reduce the cost of secondary transportation through reduced no. of trips to the processing facilities and landfill. This will also benefit in terms of reduced air pollution load caused due to vehicular movements.
8. BRUHAT BANGALURU MAHANAGAR PALIKE has **deployed Ex-servicemen as Marshals** in all its processing plants and sanitary landfill for strict monitoring and also to ensure safety and security of the facilities. Marshalls are also deployed in wards of BRUHAT BANGALURU MAHANAGAR PALIKE for ensuring segregation at source and compliance to SWM Rules, 2016 and also for imposing penalty on defaulting citizens. So far the Ex-servicemen Marshalls have seized 1,978 Vehicles and checked 2,259 people and penalised Rs. 2,71,010 for unauthorised dumping of waste.
9. **164 Dry Waste Collection Centres (DWCCs)** are established and functional in BRUHAT BANGALURU MAHANAGAR PALIKE and about 130 tones per day of recyclable materials is sold to recyclers.



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10. BRUHAT BANGALURU MAHANAGAR PALIKE takes pride in the **great citizen engagement initiatives** which has helped to achieve many firsts for the city.
11. With its efforts to promote composting and offer various composting alternatives available in the market, Bruhat Bengaluru Mahanagara Palike in association with Civil Society, has set up a **Swacha Graha Kalika Kendra** (Composting Learning Centre) at a park in HSR Layout as a pilot.
12. The drive against single use plastic gained momentum in October 2018 with the residents of Bengaluru through the innovative use of social media to spread and motivate citizens to go less plastic and carry their own reusable containers and cutlery. Termed as the **Bring Your Own Cup (BYOC)** challenge, it calls for residents to carry their own reusable steel glasses, plates, containers, spoons instead of using paper / plastic cutlery given by the food vendors and post pictures of themselves with their steel cups on social media with BYOC.
13. Installation of **lane composters** for managing wet waste at street level itself. This has positively impacted in the amount of wet waste going out of the ward.
14. **Spot fixing efforts** aim to involve the citizens to go ahead and engage with the BRUHAT BANGALURU MAHANAGAR PALIKE in eliminating and transforming a Garbage Vulnerable Point into a usable public space. The anonymous group calling themselves "**The Ugly Indians**" are Visual Cleanliness partners in this regard with BRUHAT BANGALURU MAHANAGAR PALIKE. Several solid waste black-spots and Metro Pillars and Stations and BRUHAT BANGALURU MAHANAGAR PALIKE flyovers and underpasses have been transformed through these initiatives.
15. **Biometric attendance of over 15,500 Pourakarmikas (PKs)** involved in street sweeping and door to door collection has been implemented for over a year now and the salaries to these PKs has been effected through direct payment system based on the biometric attendance reports.
16. Bengaluru handles its quantum of waste through a huge fleet of 4000+ Primary Collection Vehicles (PCV) and 500+ Secondary Transportation Vehicles (STV). The PCVs and STVs are installed with Radio Frequency Identification (RFID) tags. **RFID technology intervention has helped SWM Cell, BRUHAT BANGALURU MAHANAGAR PALIKE** to track the attendance of the large fleet of PCVs at mustering points and STVs at transfer locations and at processing and disposal destinations. This not only helps in monitoring vehicles movement on a daily basis but also creates a



digital record for processing of performance linked payments to service providers.

17. **Smart Data Centre** is being setup for integrating **all ICT based SWM data of BRUHAT BANGALURU MAHANAGAR PALIKE with respect to fleet management**, weighing, visual monitoring, manpower attendance, segregation and coverage and citizen feedback. The real time tracking would be through RFID / GPS and other relevant technologies. This Smart Data Centre software would then be utilised by other Urban Local Bodies in Karnataka to track their SWM fleet by logging in to this centralised server located at BRUHAT BANGALURU MAHANAGAR PALIKE Head Office. Hence this would be a State Level Smart Data Centre for SWM.

RURAL DRINKING WATER and SANITATION DEPARTMENT (RDW & SD),

1. **All Grama Panchayats (GPs) in the State have been declared as OPEN DEFICATION FREE** on 19-11-2018.
2. 45 Grama Panchayats (GPs) out of 6022 Grama Panchayats have 100% source segregation.
3. **349 Solid Waste Management units** were sanctioned in the year 2015-16, out of which **97 units are functional and the remaining are under construction.**
4. In the current financial year, **1000 solid waste management units and 176 Liquid waste Management units are sanctioned**, for which Rs. 200 Cr funds has been earmarked.
5. Vandse GP (Udupi District), Laila GP (Dakshina Kannada District) and Huilgi GP (Koppal) SWM Units have generated income from sale of organic and inorganic waste items.
6. **Sustainable Solid and Liquid Resource Management (SLRM)** in Udupi district one SLRM Centre for each Gram Panchayath was set up and was provided with a specially designed Tricycle/vehicle, a designated Self Help Group will take up the collection and segregation work. Each household has been provided with Green and Red buckets for promoting source segregation. For scattered households a "bora" bag has been provided to store only dry wastes which will be collected once in a week. Sanitary napkins and medical waste has been instructed to be wrapped in newspaper separately by marking it in red and blue colours for identification. Segregated waste is collected and processed in SLRM. Based on **50 SLRM centre's data in Udupi district, about 300 tons of waste per month is processed**



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scientifically by employing 200 people. So far about 1200 tons of waste has been collected and processed scientifically in the district and Rs. 20 lakhs worth recyclable items are sold to authorised recyclers through SLRM project.

KARNATAKA STATE POLLUTION CONTROL BOARD

1. Organic waste processing :- For all the construction projects, Board is stipulating a condition while issuing consent for establishment (CFE) since 2012 to provide the Solid waste processing facility (for organic waste). There are about **1,139 projects like housing /apartments/commercial complexes which have provided organic waste converters within their premises** to convert the organic waste into manure and use it within their premises.
2. **Ban on open burning of solid waste:** Government of Karnataka has issued Notification banning the open burning of waste including leaf litters within the urban areas vide Notification dated: 03-08-2017. Violation of this Notification is treated as violation of the provisions of the Air Act, 1981.
3. Karnataka State is having **maximum number of Common Biomedical Waste Treatment and Disposal Facility (26 operating units)**, covering the entire state.
4. For proper management of **date expired medicines** from pharmacies, the Board has permitted one agency M/s. Satva health solutions to collect expired drugs from pharmacies and hand it over to a Common Biomedical Waste Treatment and Disposal Facility
5. The Board has permitted **8 cement industries to use plastic waste for co-processing** as per the guidelines notified by CPCB for the utilization of plastic waste in cement factories.
6. Many **unorganized units** have come under the purview of the Board and **started recycling of plastic waste** as per IS specification (52 units).
7. Since officers of Local bodies are not empowered to take cognisance of offences under Sec 19 of the Environment (Protection) Act, 1986 for violating Plastic ban notification Dated 11-3-2016 by the shopkeepers, vendor, wholesaler, retailer, traders, hawker or salesmen, **Board has authorized Regional officers** vide office order dated 07.5.2016 to file cases if the request is received from Local Bodies. So far 12 cases have been filed by the regional officers.
8. KSPCB has **issued closure directions under section 5** of the Environment (Protection) Act, 1986 to 93 manufacturing units.

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9. In Karnataka, encouragement is given for use of plastic waste in road construction. During 2017-18, 120 MT of plastic waste was used in road construction by Bruhat Bengaluru Mahanagara Palike and 33 MT was used for private Roads.

10. The state has 29 CAAQMSs across the state covering 24 districts and BANGALURU city. State also has 12 vehicular emission monitoring vehicles fitted with smoke density meters and gas analyser. It has also procured 2 mobile Ambient Air Quality Monitoring Vans.

11. The Board is monitoring the ambient air quality of Bengaluru at 21 locations covering Industrial, Residential, Rural and other areas as per the CPCB guidelines using 14 manual stations and 7 CAAQMS. Air Quality Index (AQI) is calculated and shows that on date Bengaluru City AQI (0-50) is good at 2 locations, AQI (51-100) is satisfactory at 14 locations and AQI (101-200) is moderate at 5 locations. Similarly the Board is monitoring ambient air quality at major cities of Karnataka using 22 manual stations and 24 CAAQMS. Air Quality Index (AQI) is calculated and shows that on date the ambient AQI (0-50) is good at Mandya, Mysore Madikeri, Chitradurga, Bhadravathi. AQI (51-100) is Satisfactory at Kolar, Chamarajanagar, Hassan, Mangalore, Ranebennur, Hubli-Dharwad, Belgaum, Kalaburagi, Raichur, Bellary and AQI (101-200) is Moderate at Bidar, Tumakuru, Davanagere.

12. The State Government has announced Rs. 73.60 crores to establish 32 CAAQMSs covering 21 districts.

13. To measure the impact of bursting of fire crackers on air quality on the occasion of Deepavali festival 2018, round-the-clock (24 hourly) air quality monitoring was carried out as per the CPCB guidelines. Using measured data, Air Quality Index (AQI) of ambient air quality was calculated and the data revealed that the Air Quality Index (AQI – 110.9) values of Deepavali 2018 decreased by 31.0 % , when compared to Deepavali 2017 (AQI – 161.0).

14. To measure the impact of bursting of fire crackers on ambient noise quality on the occasion of Deepavali festival 2018, noise monitoring was conducted round-the-clock (24 hourly). The measured noise levels data revealed that the average noise levels have decreased by 0.5 % dB(A) during Deepavali 2018 (63.8 dB(A)), when compared to Deepavali 2017 (64.3 dB(A)).

15. North-South and East West Metro Corridors : The measured air pollutants along the North-South Metro corridor viz SO₂, NO₂, PM₁₀ and PM_{2.5} values decreased by an average value of 13.3 % and around 30 % drop of personal vehicles usage is seen in the Metro- Reaches.



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16. In Karnataka, there are no Priority I and Priority II polluted river stretches. **The River Rejuvenation Action Plans** for all the 17 polluted river stretches have been prepared and sent to CPCB on 13.12.2018.

17. Placed State is **monitoring water quality of rivers and tributaries** at 101 locations on monthly basis. State is also monitoring the water quality of 125 lakes in the state.

18. There were **two industrial clusters declared as critically polluted** viz., Bhadravathi, Shimoga and Baikampady, Mangalore. The effective implementation of the action plan has resulted in reduced CEPI score of 58.48 and 59.44 respectively.

- The KSPCB (Karnataka State Pollution control Board) and BWSSB (Bangalore Water Supply and Sewerage Board) jointly inspected the Apartments, Layouts and Other Projects. As on date **873 projects have been inspected.**

- Out of 873 projects, 471 projects have provided STP's 356 projects do not have STP's [These projects which were exempted earlier as per GO Order dated 04.08.2010] and **46 projects STP's are under construction.**

- D The KSPCB has also issued public notice on 10-06-2017 to all the apartment complexes to comply with Hon'ble NGT directions.

- The Board has issued **notices to all the 356 apartments and other projects that have not provided STP's and are not treating to specified standards.**

- Also, the Board has issued notice of proposed directions under Water Act and called for personal hearing at Board Office for 99 apartments and other projects that have not provided STP's on 21.2.2018, 22.2.2018 and 14.3.2018. Notices were issued by the Board to 55 residential/commercial complexes to comply the directions of Hon'ble NGT and personal hearing directions as on 24.01.2019. Further Board has issued notices to the authorities offering last opportunity for personal hearing which was held on 08.04.2019 in which, out of fifty five (55) infrastructure projects, 28 projects have attended the meeting and 27 projects have failed to attend the meeting. As per the directions of the Hon'ble NGT, Board has taken decision to file criminal case against those projects who have failed to install STPs.

19. The amount spent on providing Chain link fencing to prevent dumping of CandD waste and garbage is Rs.150 Lakhs to prevent dumping of C and D waste and Garbage.

20. **5 Sluice gates** at Varthur Lake have been provided at a cost of Rs.415 Lakhs to control foaming.



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DEPARTMENT OF HEALTH and FAMILY WELFARE SERVICES

1. **Biomedical Waste Management and Monitoring Software** has been developed and linked to the Department Website as a common portal for each Healthcare Facility, the State to login and enter data on day to day generation of Biomedical Waste as per categories in Schedule-I (Software is piloted in selected Hospitals in the State which is to be extended).
 2. **Microwaves have been supplied to 4 Large Medical College Hospitals** in the State for disinfection of Recyclable plastic waste, microbiological and laboratory waste as per BMW Management Rules 2016.
 3. **7000 Health Records** have been printed and distributed to Healthcare Staffs to undergo Health Check-up as per BMW Rules 2016 and to keep records of the same.
 4. **Training Modules and SOP's** has been developed under UNIDO Project which has been approved by MoEF and CC and link to access the same has been provided in the department's Website.
 5. **Training of Trainers (ToT) of 621 Staff** has been conducted on BMW Rules 2016 who have in turn have trained nearly 8000 Staff working in Healthcare Facilities in the State.
6. I respectfully further submit that, following measures have been taken up by the State for implementation of SWM Rules 2016 in the State.
- i) **Comprehensive circular** in Kannada sent on 3-12-2016 to all Urban Local Bodies and district administration highlighting the roles and responsibilities of different stakeholders of SWM (DMA/30/SWM/2016-17 (P2))
 - ii) **SWM rules -2016 translated** to Kannada and circulated to all the Urban Local Bodies as well as to district administration.
 - iii) In order to speed up the compliance of Rule 15 (e) (f) and (zf) SWM, **draft model bye-law** are prepared by the State after the Model Code of Conduct [MCC] period ends, it will be circulated to Urban Local Bodies for adoption.
 - iv) In order to speed up the process of waste management in Urban Local Bodies, **218 SWM DPRs under Swachh Bharat Mission** have been approved with a processing capacity of 9159 tonnes (Total project cost of Rs 1501.31 Crs). **Technical and Administrative approval powers** for approval of SWM tenders has been **decentralised** to district and Urban Local Bodies (which earlier had rested with State in case of SWM program) depending upon the financial delegation of power.
 - vi) As a step towards enriching the capacity of **SWM working staff**, and to motivate the staff, **field visits to sites across the nation** have been arranged.



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- vii) **Regular trainings are organised** to Urban Local Bodies staff (**across the cadres**) through State Institute of Urban Development (SIUD), Mysore.
- viii) Agencies were selected at State level for implementing IEC activities such as **Swachhata Jathas and drives**, conducting street plays.
- ix) **Permanent hoardings** for displaying messages on prohibition of **manual scavenging, promoting source segregation** at Urban Local Bodies were installed by the State.
- x) **Bus panel advertisements have been placed on 2,228 buses to encourage segregation at source**, creating general awareness about waste processing and disposably decentralised way and creating awareness on personal hygiene and city sanitation.
- xi) District level **Swachh Quiz** programmes for students in all the **30 districts were conducted**.
7. I respectfully submit that, ULB wise SWM implementation status on orders passed by Hon'ble NGT with regard to Compliance of Solid Waste Management Rules, 2016 and PWM Rules 2016 (as submitted by the Deputy Commissioners) are enclosed here with and marked as Annexure-R14.
8. I respectfully submit that, as per Rule 11 of SWM Rules 2016, Urban Development Department had prepared Draft SWM policy through divisional level stake holder consultative meetings. This was tabled before State Level Advisory Body on 02-02-2019. Civic society representatives raised a few objections. Accordingly a separate committee is being constituted comprising representatives from civic society, local bodies, SWM experts and concerned government organisations.
9. I respectfully submit that, implementation action plan for the proposed activities in SWM Rules 2016 as submitted by the districts and consolidated by the State is detailed below;

Sl no	Activity	Time line from the notification of rules	Revised time line sought by the State	Remarks

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Sl no	Activity	Time line from the notification of rules	Revised time line sought by the State	Remarks
1	Identification of suitable sites for setting up solid waste processing facilities	1 year (April-2017)	UDD (Urban Areas) December 2020 RDW & SD (Rural Areas) March 2022	UDD submission 205 Urban Local Bodies out of 279 Urban Local Bodies have identified suitable land for processing of MSW. Remaining 70 Urban Local Bodies are yet to identify land, out of which 58 Urban Local Bodies are newly upgraded Urban Local Bodies. It has become difficult to identify land because of local resistance and public protest. However efforts are being made for outright purchase of lands from private parties in and around the vicinity of Urban Local Bodies at prevailing market rates. Remaining 4 Urban Local Bodies are Notified Area Committees. <ul style="list-style-type: none"> ▪ No of Urban Local Bodies yet to procure land: 70 ▪ No of Urban Local Bodies identified land: 4 ▪ No of ULB's proposal under verification: 12 ▪ No of Urban Local Bodies in search of land : 54 3 Urban Local Bodies with more than 5 lakh population have standalone SLFs (i.e., BRUHAT BANGALURU MAHANAGAR PALIKE,
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 .	1 year (April-2017)	UDD (Urban Areas) December 2021	
3	Procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities	2 years (April-2018)	UDD (Urban Areas) December- 2021	<ul style="list-style-type: none"> ▪ No of ULB's proposal under verification: 12 ▪ No of Urban Local Bodies in search of land : 54 3 Urban Local Bodies with more than 5 lakh population have standalone SLFs (i.e., BRUHAT BANGALURU MAHANAGAR PALIKE,



Sl no	Activity	Time line from the notification of rules	Revised time line sought by the State	Remarks
				<p>Mysore and Hubli-Dharwad City Corporations).</p> <p>Apart from the said Urban Local Bodies, 91 Urban Local Bodies have standalone SLF in the State.</p> <p>194 Urban Local Bodies are in the tendering stage for development of standalone SLF.</p> <p>Common/ regional SLF will be tried in newly upgraded Urban Local Bodies if distance permits.</p> <p>RDW & SD submission</p> <p>ZP, CEOs are identifying suitable land within GP limit for setting up of waste processing facility. If no land is available, they have been instructed to submit a proposal to DC seeking grant of revenue land. Hence additional time is sought.</p>
4	Enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source ,	2 years (April-2018)	<p>UDD (Urban Areas) December-2021</p> <p>RDW & SD (Rural Areas) March 2022</p>	<p>UDD submission</p> <p>Total wards : 6609 wards</p> <p>1217 wards have 100% source segregation</p> <p>1451 wards partial source segregation</p> <p>Model SWM Bye law is drafted by the State so that it can strengthen Urban Local Bodies in ensuring source segregation.</p>



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Sl no	Activity	Time line from the notification of rules	Revised time line sought by the State	Remarks
				<p>Before penalizing, as directed by the Hon'ble NGT, IEC in the form of establishing SWM Parks in all the Urban Local Bodies will be proposed in the State.</p> <p>RDW & SD submission</p> <p>Since GPs have come under purview of SWM Rules in the year 2016, it requires sufficient time to develop adequate infrastructure facility for carrying out processing of solid waste scientifically. Hence RDW & SD is seeking additional time.</p>
5	Ensure door to door collection of segregated waste and its transportation incoved vehicles to processing or disposal facilities.	2 years (April-2018)	<p>UDD (Urban Areas) December -2020</p> <p>RDW & SD (Rural Areas)</p> <ul style="list-style-type: none"> • 1807 GPs by March 2020 • 2409 GPs by March 2021 	<p>UDD submission</p> <p>218 Urban Local Bodies SWM DPRs have been approved under Swachh Bharat Mission. For the remaining Urban Local Bodies, DPRs are under preparation. But due to lack in availability of land for establishing solid waste processing units scientifically, additional time is sought.</p> <p>RDW & SD submission</p> <p>Since GPs have come under purview of SWM Rules in the year 2016, it requires time to develop required infrastructure for carrying out systemic and</p>



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Sl no	Activity	Time line from the notification of rules	Revised time line sought by the State	Remarks
			• 1806 GPs by March 2022	scientific solid waste management. Hence RDW & SD seeks more time when compared to Urban areas.
6	Ensure separate storage, collection and transportation of construction and demolition wastes	2 years (April-2018)	<u>UDD</u> (Urban Areas) December -2020	<p>UDD submission</p> <p>Urban Local Bodies are in the process of identifying suitable land for establishing CandD waste processing plants.</p> <p>Identification and procurement of suitable land may take some time.</p> <p>Urban Local Bodies which have adequate land for SWM processing, are in the process of earmarking a portion of land for storing the CandD waste. But in Urban Local Bodies with smaller piece of lands further efforts will be made to procure adequate land.</p> <p>Separate CandD policy for the State of Karnataka is being prepared</p> <p>Hence additional time is sought.</p>
7	Setting up solid waste processing facilities by all local bodies having 100000 or more population	2 years (April-2018)	<u>UDD</u> (Urban Areas) March 2020	<p>UDD submission</p> <p>There are 26 ULB's with more than one lakh population and SWM DPRs are finalised.</p> <p>Out of which 17 Urban Local Bodies have processing facility (ranging from partial to 100% processing)</p>



Sl no	Activity	Time line from the notification of rules	Revised time line sought by the State	Remarks
				9 Urban Local Bodies are yet to develop the facility. These Urban Local Bodies have to invite tenders, for development of processing infrastructure. After finalizing the tender, it will take minimum 6-8 months to complete civil infrastructure. 1-2 months is required for commissioning of same. Hence additional time is sought.
8	Setting up solid waste processing facilities by local bodies and census towns below 100000 population.	3 years (April-2019)	<u>UDD</u> (Urban Areas) December -2020	UDD submission Out of 253 ULB's with less than 1 lakh population, 192 ULB's have finalised SWM DPRs. Out of 253 Urban Local Bodies, 80 Urban Local Bodies have partial processing facilities. 173 Urban Local Bodies are yet to develop the facilities. Newly upgraded Urban Local Bodies are yet to procure land for processing and disposal. After procuring they will prepare SWM DPRs. Hence additional time is sought.
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	3 years (April-2019)	<u>UDD</u> (Urban Areas) March 2020	SWM DPRs have been accorded approval. Tenders are in process. After finalizing the tender it will take minimum 6-8 months to establish and complete civil



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Sl no	Activity	Time line from the notification of rules	Revised time line sought by the State	Remarks
	processing facilities as well as untreatable inert wastes as permitted under the Rules			infrastructure. Hence additional time is sought.
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	3years (April-2019)	<u>UDD</u> (Urban Areas) December -2020	Newly upgraded Urban Local Bodies are yet to procure land for processing and disposal. Depending upon the extent of land, they will proceed in procurement of land. A suitable decision will be taken either to proceed with stand alone SLFs for establishing common SLFs. <ul style="list-style-type: none"> • After procuring land, the Urban Local Bodies will prepare SWM DPR. • Action will be initiated to invite tender for establishing infrastructure. Hence additional time is sought.
11	Bio-remediation or capping of old and abandoned dump sites	5years (April-2021)	<u>UDD</u> (Urban Areas) December -2021	Davanagere and Mysore cities have partial bio remediation. Smaller Urban Local Bodies after developing processing facility will proceed to commence bio-mining process using existing infrastructure facility. Other City Corporations and City Municipal Councils will also take this up. Hence additional time is sought.



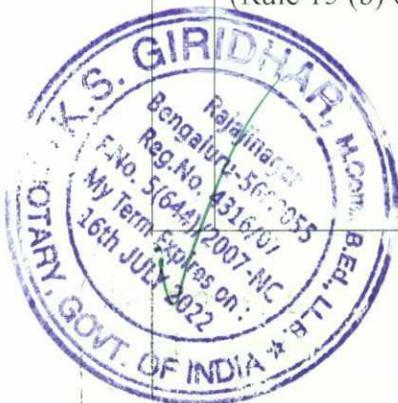
10.I respectfully submit that, the State is taking all measures required for implementation of 100% ban on one time used plastic bags, plastic banners, plastic buntings, flex, plastic flags, plastic plates, plastic cups, plastic spoons, plastic sheets used for spreading on dining table irrespective of thickness including the above items made of thermocol and plastic which use plastic micro beads vide Notification No. FEE 17 EPC 2012, dated 11.03.2016. In the past 3 years, 10,698 raids have been conducted in which, 1668 tonnes of banned items have been seized and around Rs.74 lakhs fine has been collected.

11.I respectfully submit that, SWM implementation status report of all Urban Local Bodies, and performance ranking of Urban Local Bodies (Uttam Swachh Nagar) has been uploaded on the Directorate of Municipal Administration (DMA) website (<http://municipaladm.gov.in>). Approved integrated SWM DPRs of the Urban Local Bodies are also uploaded on the DMA website for public reference.

12. I respectfully submit that, as per Rule 12 of SWM Rules 2016 implementation of Solid Waste Management Rules is reviewed on a monthly basis by the respective Deputy Commissioners.

13.I respectfully submit that, as per Rule 24(3) of the SWM Rules 2016, the following implementation status is submitted for kind perusal.

Sl no	SWM parameters	Implementation status
1	Door to Door (D2D) waste collection. (Rule 15 (b) of SWM Rules 2016)	<p>Urban Development Department (UDD)</p> <ul style="list-style-type: none"> 5605 wards out of 6609 wards have 100% D2D waste collection. <p>Rural Drinking Water and Sanitation Department (RDW & SD)</p> <ul style="list-style-type: none"> Total Grama Panchayats (GPs) -6022 which generates about 2600 TPD. 97 GPs have 100% D to D waste collection
2	Source segregation (Rule 15 (b) of SWM Rules 2016)	<p>UDD</p> <ul style="list-style-type: none"> 1217 wards have 100% source segregation 1451 wards partial source segregation <p>RDW & SD</p> <ul style="list-style-type: none"> 45 GPs have 100% source segregation 52 GPs have partial source segregation



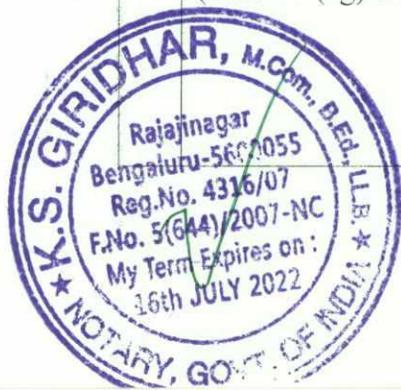
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<p>3</p>	<p>Land procurement for waste management. (Rule 11 (f) and 12 (a) of SWM Rules 2016)</p>	<p><u>UDD</u></p> <ul style="list-style-type: none"> • No of Urban Local Bodies :279 • No of Urban Local Bodies having land for waste management and basic infrastructure facility: 205 Urban Local Bodies (2499 acres). • No of Urban Local Bodies yet to procure land: 70 out of which • No of Urban Local Bodies identified land:4 • No of ULB's proposal under verification: 12 • No of Urban Local Bodies in search of land : 54 <p><u>RDW & SD</u></p> <ul style="list-style-type: none"> • Total GPs:6022 • 349 GPs have suitable land for processing and disposal
<p>4</p>	<p>Waste processing and disposal facility. (Rules 15 (V) and (W) of SWM Rules 2016)</p>	<p><u>UDD</u></p> <ul style="list-style-type: none"> • Total waste generated in the state is 11085 TPD of which 9986 TPD is collected and transported. MSW is processed in major plants such as BRUHAT BANGALURU MAHANAGAR PALIKE, Shivamogga, Mysore, Mangalore, Belagavi and in other Urban Local Bodies to an extent of about: 3494 TPD (31.5%) • 370 TPD of compost is being produced. Sale proceeds of about Rs.255.54 lakhs is earned. • 94 Urban Local Bodies have Sanitary Landfill Facility (SLF) • 153 Urban Local Bodies have invited tenders for creating additional civil infrastructures at ISWM sites.



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<p>5</p>	<p>Bulk waste management. (Rule 4 (6) and (7) of SWM Rules 2016)</p>	<p>UDD</p> <ul style="list-style-type: none"> • 5112 bulk waste generators identified generating about 950 TPD of waste. • 524 bulk waste generators are treating about 160 TPD bulk waste in house. • Amount Rs. 1.36 Cr has been collected in the previous year from 3029 bulk waste generates.
<p>6</p>	<p>Levy of SWM user charges (Rule 15 (g) of SWM Rules 2016)</p>	<p>UDD</p> <ul style="list-style-type: none"> • 236 Urban Local Bodies have notified levying of SWM user charges. • An amount of Rs. 121 Cr has been collected towards SWM user charges in the last year. <p>RDW & SD</p> <ul style="list-style-type: none"> • 97 GPs are collecting SWM user charges
<p>7</p>	<p>Action plan for SWM in compliance with SWM Rules 2016. (Rule 15 (a) of SWM Rules 2016)</p>	<p>UDD</p> <ul style="list-style-type: none"> • 218 out of 279 Urban Local Bodies have finalized integrated SWM DPRs under Swachh Bharat Mission for improving the collection, transportation, processing and disposal of 9159 tonnes of MSW with estimated DPR cost of 1501.31 Cr. <p>RDW & SD</p> <ul style="list-style-type: none"> • 349 GPs have finalised SWM DPRs and have been approved • 1000 GPs are being selected for the preparation of SWM DPRs.
<p>8</p>	<p>IEC activities (Rule 15 (zg) of SWM Rules 2016)</p>	<p>UDD</p> <ul style="list-style-type: none"> • Are being carried out in all Urban Local Bodies. Rs.17.65 Cr has been spent on IEC both at State and ULB level. <p>RDW & SD</p> <ul style="list-style-type: none"> • IEC activities such as Kalajatha,



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	drama, Audio plays , distribution of brochures, post cards, street plays are being taken up at GP level
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- 14.I respectfully submit that, all Deputy Commissioners were appraised about the Hon'ble NGT orders with respect to OA 606 /2018 through Video Conference on 13-2-2019 and 14-2-2019 under my Chairmanship. In addition two review meetings of all the concerned departments which are responsible for compliance of Hon'ble NGT orders have been held under my chairmanship on 2-4-2019 and 12-4-2019. Proceedings of the said meetings are enclosed here with and marked as Annexure-R15 , R16 and R17.
- 15.I respectfully submit that, all districts have constituted Special Task Force (STF) for creating awareness as per the Hon'ble NGT order. The STFs are meeting regularly to monitor implementation of NGT directions.
- 16.I respectfully submit that, under Swachh Bharat Mission (SBM), Central and State governments sharing pattern for SWM is 35% and 23.33% of DPR cost. Accordingly Rs.1123.19 Crs has been earmarked for the implementation of solid waste management in the State.
- 17.I respectfully submit that, **268 Urban Local Bodies** have made **adequate provision** in their respective budgets for **operation and maintenance of SWM projects**.
- 18.I respectfully submit that some of the **best practices** in the State in Solid Waste Management are enclosed here with and marked as Annexure-R18.
- 19.I respectfully submit that, Urban Local Bodies are gradually utilising the city compost in their parks and gardens. Agriculture and Horticulture departments are taking appropriate steps to enable their subordinate offices to buy city compost (in compliance with FCO standards) from the Urban Local Bodies. (State Level Compost Steering Committee meeting proceedings dated: 29-5-2017 is enclosed as Annexure- R-19).
- 20.I respectfully submit that, as per the annual implementation plan for the year 2019-20, Rs 200 Cr has been allotted for establishment of 1000 SWM facilities in GPs with funding from MGNREGA, 14th Finance Commission, Members of Parliament Local Area Development Scheme (MPLADM), and Member of Legislative Assembly Local Area Development Scheme (MLALAD) funds.

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. Jayacharan



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 _____ on

_____ day of
22 APR 2019

M. Jayacharan

DEPONENT

CHIEF SECRETARY

GOVERNMENT OF KARNATAKA

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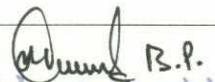


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K.S. Giridhar
K. S. GIRIDHAR
M.Com., B.Ed./L.L.B.
ADVOCATE & NOTARY
314, Milk Colony, 2nd Stage
Rajajinagar, BENGALURU-560055

Notary Stamps withheld
Karnataka State
w.e.f. 01-04-2003
Advocate & Notary

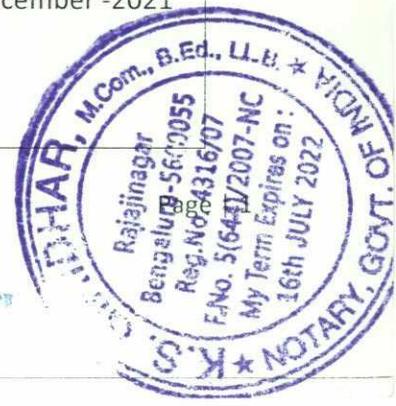
Compliance to Solid Waste Management Rules 2016

Sl. No	SWM Rule Clause	Provisions of SWM Rules 2016	Implementation status	proposed time line for 100% compliance
1	2	3	4	5
Compliance to duties of waste generators				
1	4(a) & 15 (g)	Segregate and store the waste generated by them in three separate streams namely bio-degradable, non-biodegradable and domestic hazardous wastes Direct waste generators not to litter and to segregate the waste at source as prescribed under these rules	Current Status: Total wards 6609 (279 ULBs) 100% source segregation: 1217 wards. Partial source segregation: 1451 wards Littering will be tackled through IEC component under Swachh Bharat Mission followed by penal action.	December -2021
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.	232 ULBs have banned burning of waste through notification as per the information submitted by the DCs.	December -2019
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	236 ULBs have notified levying of user charges In the last financial year Rs.121 Cr of SWM user charges has been collected in these municipalities in the last financial year.	December -2019
4	4 (8)	All Bulk waste generator (resident welfare and market associations, gated communities and institutions with more than 5,000 sqm 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	No of bulk waste generators identified in the State : 5112 Quantity of bulk waste generated: approximately 950 tonnes Quantity of bulk waste processed: 106 tonnes In-situ bulk waste processing: 524 tonnes (includes feeding to piggeries) No of bulk waste generators from where user fee is collected : 3029 Amount of user fee collected in the previous year: 1.36 Cr	December -2021


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 Executive Engineer
 Directorate of Municipal Administration
 Bangalore.



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	218 ULBs have carried out enumeration of waste pickers and 2420 number of waste pickers are involved in waste management in the State.	October-2019
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	365 DWCCS are existing in the State, 537 tonnes of recyclables materials are sold to rag pickers. 137 ULBs have invited tender for development of DWCCs under Swachh Bharat Mission. 2420 rag pickers are involved in waste management. 218 SWM DPRs which have been approved by the State has components of DWCCs.	December -2019
11	15(e)	frame bye-laws incorporating the provisions of these rules within one year from the date of notification of these rules	In order to eliminate delay in procedure and to bring in uniformity in structuring of SWM bye-law, model SWM bye law both in English & Kannada has been prepared by the State government. ULBs will be directed to adopt the same. Draft English model SWM bye law was published on 10-7-2018 through State gazette Draft Kannada model SWM bye law was published on 3-1-2019 through State gazette.	June 2019
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	Compartment will be earmarked in DWCCs for deposition of domestic hazardous waste in ULBs.	December -2019
13	15(k)	direct street sweepers not to burn tree leaves collected from street sweeping	Instruction have been issued and in the training component it is being conveyed to ULBs staff not to burn waste. In case of waste burning by waste generator, hefty fines to an extent of Rs.25,000/- (in case of bulk waste generators) and Rs.10,000/- fine for non bulk waste generators if found guilty of burning of waste is proposed in SWM bye law	June 2019
14	15(l)	Provide training on solid waste management workers & waste pickers.	Proposed activities under Swachh Bharat Mission	In progress

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			<ul style="list-style-type: none"> • State wise ranking of cities based on SWM performance • Best practice identification & rewarding • Facilitating field visit through CMAK • Extensive training through SIUD, EMPRI 	
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	51 ULBs have decentralised waste processing facilities in State including 7 biogas plants Issue is addressed in SWM bye law	December 2019
16	15(p)	Collect horticulture, parks and garden waste separately and process in the parks and gardens, as far as possible		
17	15(t)	involve communities in waste management and promotion of home composting, bio-gas generation, decentralised processing	Proposed in SWM bye law.	December -2020
18	15(v)	Construction, operation and maintenance of solid waste processing & disposal facilities	Total SWM generated in the State : 10,394 tonnes Waste processed: 3042 tonnes (160 ULBs processing varying from partial to 100%) Total number of Sanitary landfill facility: 91 127 ULBs have invited tenders for procurement of equipment & vehicles required for D/D , waste transportation & street sweeping 137 ULBs have invited tenders for development of processing & disposal	December -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	Under Swachh Bharat Mission 58.33% of project cost (only capitol cost) will be borne by Central & State shares rest 41.66% ULBs have to make provision in SFC, 14 TH Finance Commission Grants . Total grants of 1123.19 Crs (including Central and State share) has been earmarked for implementation of solid waste management in the State. As per the affidavits submitted by Deputy Commissioners 268 ULBs have made sufficient provision for O&M of SWM in their budgets	December -2020
20	15(za)	Prepare and submit annual report in Form IV on or before the 30th April of the succeeding year	- (Complied)	

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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	SWM model bye-law is being finalised at DMA level	April 2019
22	15(zg)	create public awareness through information, education and communication campaign and educate the waste generators	<p>Following IEC activities pertaining SWM & city sanitation has been carried out through 272 ULBs under Swachh Bharat Mission program.</p> <ul style="list-style-type: none"> • State level SWM Workshops have been conducted in association with Ministry of Housing & Urban Affairs (MoH&UA) • Kalajatha to encourage waste segregation, construction of Toilets and removal of Open defecation spots. • Permanent hoardings displaying Prohibition of manual scavenging, promoting source segregation • Bus panel advertisements to encourage source segregation of waste and general awareness about solid waste processing and disposal • Swachh Quiz conducted to students of various schools in 30 districts. • Broadcasting jingles through All India Radio <p>Rs.17.65 Cr has been spent towards IEC in both State & ULB level under Swachh Bharat Mission.</p>	In progress
23	15(zj)	investigate and analyse all old open dumpsites and existing operational dumpsites for their potential of biomining and bio-remediation/scientifically capped	<p>Mysore & Davanagere CCs are doing bio mining on smaller scale.</p> <p>District Administrations can be asked to invite district level tender for scientific bio mining /remediation wherever is required. By doing so better quality agency may be procured for carrying out the process scientifically</p>	December -2020
24	19,20 & 21	<p>Criteria for Duties regarding setting-up solid waste processing and treatment facility</p> <p>Criteria and actions to be taken for solid waste management in hilly areas.-</p> <p>Criteria for waste to energy process</p>	Is complied	

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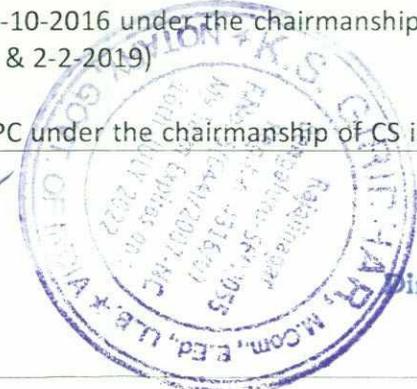


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Time frame for implementation		Sl no	Proposed activity as per SWM Rules 2016	Time frame for achieving
25	22	1	Identification of suitable sites for setting up solid waste processing facilities	December- 2020
		2	Identification of suitable sites for 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 .	December- 2021
		3	Procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities	December- 2021
		4	Enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source ,	December- 2021
		5	Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.	December- 2020
		6	Ensure separate storage, collection and transportation of construction and demolition wastes	December- 2020
		7	Setting up solid waste processing facilities by all local bodies having 100000 or more population	March-2020
		8	Setting up solid waste processing facilities by local bodies and census towns below 100000 population.	December- 2020
		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	March- 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	December- 2020
		11	Bio-remediation or capping of old and abandoned dump sites	December- 2021
26	23	State Level Advisory Body (SLAB)	<p>SLAB has been constituted vide GO 24-10-2016 under the chairmanship of ACS, UDD and so far 3 SLAB meetings been conducted (24-4-2017, 14-3-2018 & 2-2-2019)</p> <p>Under Swachh Bharat Mission, SBM-HPC under the chairmanship of CS is being regularly conducted wherein most</p>	

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		of SWM issues are being discussed and approvals/directions obtained. So far 10 HPC meetings have been conducted.
27	Annual report.	Instructions has been reiterated to all ULBs for submission of SWM annual reports by April 30 th and state consolidated report will be submitted as per the rules by KSPCB

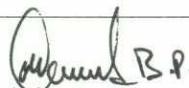
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Status of compliance to the Solid Waste Management Rules, 2016 in Rural area

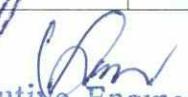
Sl. No	Gist of provisions of SWM Rules 2016	Status of compliance	Proposed timeline for total compliance
1	2	3	4
Compliance w.r.t. duties of Waste Generators			
1	<p>Rule 4(a) Segregate and store the waste generated in separate streams of namely bio-degradable, non-biodegradable and domestic hazardous wastes in suitable bins and handing over to authorized waste pickers/waste collectors as per the directions of Gram Panchayats(GPs)</p> <p>Rule 15 (g) 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 - 6022</p> <p>GPs practising 100% source segregation: 45 GPs practising partial source segregation: 52</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(Grameen)</p>	<p>30% of GPs(1807 GPs) by March 2020</p> <p>40% of all GPs(2409GPs) by March 2021</p> <p>Remaining GPs(1806) by March 2022</p>
	<p>Rule 4(2) 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>97 GPs in the State have banned burning of waste and open dumping.</p> <p>Trainings and Workshops are being conducted to Panchayat Development Officers of GPs, Executive Officers of Taluk Panchayats(TPs), and Panchayat Raj Representatives on prohibition of burning of waste and open dumping</p>	
3	<p>Rule 4(3) & Rule 15(f) Payment of user fee for solid waste management, as specified in the bye-laws of GPs</p>	<p>97 GPs are collecting user fee for solid waste collection and management</p>	<p>100% by March 2022</p>
4	<p>Rule 4 (8) Bulk Waste Generators (Resident Welfare and Market Associations, Gated Communities and Institutions with more than 5,000 sq m area & Hotels and Restaurants) shall process and dispose off the bio-degradable waste through composting or bio-methanation within the premises</p>	<p>The provisions are not applicable to rural areas</p>	


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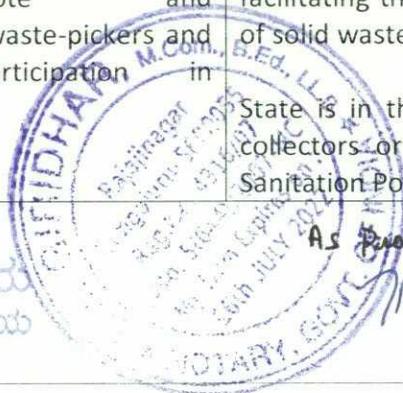
Compliance w.r.t. duties of Deputy Commissioner(DC)

5	Rule 12(a) Facilitate identification and allocation of suitable land for processing & disposal	349 GPs out of 6022 have suitable land for processing & disposal of solid waste. Remaining GPs are in the process of procuring required lands. Instructions have been given to the Chief Executive Officers of ZPs for identification of suitable land in the GP limits and if no land is available, they have been instructed to submit proposals to DC seeking revenue land for this purpose.	100% by March-2022
6	Rule 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 Commissioner (Rural Water Supply and Sanitation Department)	CEOs of ZPs have been instructed to review the performance of GPs in respect of compliance of the provisions of Rule 12 (b)	

Compliance w.r.t duties of Gram Panchayats(GPs)

7	Rule 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 of the State policy	349 SWM DPRs have been approved by Commissioner and Mission Director, Rural Drinking Water and Sanitation Department (RDW & SD) During 2019-20, 1000 GPs are being selected for the preparation of DPRs of SWM	March - 2020
8	Rule 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	100% door to door waste collection is being carried out in 97 GPs.	March 2022
9	Rule 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	Udupi, Dakshina Kannada and Kodagu districts have taken the lead in facilitating the network of waste pickers in their GPs for proper management of solid waste State is in the process of establishing a network of locally available waste collectors or waste pickers in rural areas. The proposed Karnataka Rural Sanitation Policy addresses this concern	March - 2020

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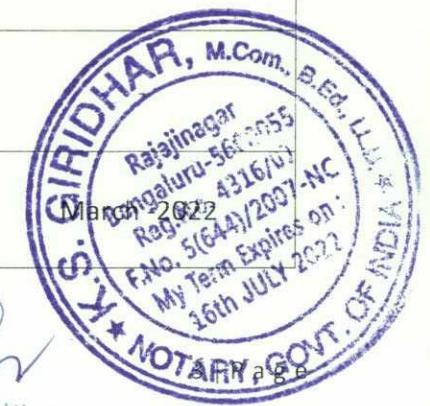
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10	<p>Rule 15(d) Facilitate formation of Self Help Groups, provide identity cards and thereafter encourage integration in solid waste management.</p> <p>Rule 15 (h) Setup material recovery facilities or secondary storage facilities with sufficient space for sorting of recyclable materials</p>	<p>Self Help Groups have been formed in Udupi and Dakshina Kannada districts for the proper integration of solid waste management</p> <p>Dry waste collection centres have been set up in 97 GPs</p>	<p>March - 2022</p>
11	<p>Rule 15(e) Frame bye-laws incorporating the provisions of these Rules within one year from the date of notification of these Rules</p>	<p>Karnataka State Rural Sanitation policy is being readied and GPs are being directed to frame byelaws adopting the provisions of these Rules</p>	<p>September - 2019</p>
12	<p>Rule 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</p>	<p>Dry waste collection centres in GPs are being provided with separate compartments for deposition of domestic hazardous waste in GPs</p>	<p>March - 2022</p>
13	<p>Rule 15(k) Direct street sweepers not to burn tree leaves collected from street sweeping and store them separately to be handed over to waste collectors.</p>	<p>Necessary instructions are being given to the concerned to desist from burning fallen leaves of trees and handing them over to authorized waste collecting agencies</p>	
14	<p>Rule 15(l) Provide training on solid waste management to waste pickers/waste collectors</p>	<p>Training is being provided at GP level to waste pickers/waste collectors</p>	
15	<p>Rule 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</p>	<p>97 GPs 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</p>	<p>March - 2022</p>
16	<p>Rule 15(p) Collect horticulture, parks and garden waste separately and process in the parks and gardens, as far as possible</p>	<p>These provisions are being incorporated in the proposed State Rural Sanitation Policy</p>	
17	<p>Rule 15(t) Involve communities in waste management and promotion of home composting, bio-gas generation, decentralised processing</p>	<p>Communities are being involved in household pipe composting, pot composting and livestock feeding</p>	

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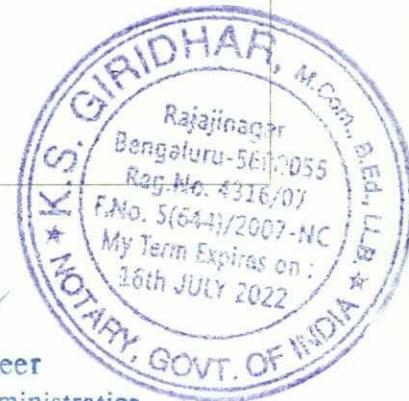
18	<p>Rule 15(v) Construction, operation and maintenance of solid waste processing facilities and associated infrastructure with preference to be given to decentralised processing to minimise transportation cost and environmental impacts such as</p> <p>a. bio-methanation, microbial composting, vermi-composting, anaerobic digestion or any other appropriate processing for bio-stabilisation of biodegradable wastes</p> <p>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</p>	<p>Under the guidelines of Swachh Bharat Mission (Grameen), Rs 20 lakhs has been earmarked for establishing in each GP a solid waste management unit that consists of capital expenditure (Infrastructure, vehicle and materials). The operation and maintenance expenditure is met by user charge and resale of recyclable materials and compost.</p>	March - 2022
19	<p>Rule 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</p>	<p>As per the Annual Implementation Plan for the year 2019-20, Rs. 200 Cr (Central share – 60% - Rs. 120 Cr and State share – 40% - Rs. 80 Cr) has been allocated for establishing 1000 SWM Units. Each SWM unit will be established at a cost of Rs. 20 Lakhs and funds under MGNREGA, 14th Finance, MPLAD, MLALAD schemes could also be made use of</p>	-
20	<p>Rule 15(za) Prepare and submit annual report in Form IV on or before the 30th April of the succeeding year</p>	Not applicable to Panchayat Raj Institutions	-
21	<p>Rule 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</p>	These provisions are being incorporated in the proposed Karnataka Rural Sanitation Policy under which GPs shall frame Bye-laws	April 2019
22	<p>Rule 15(zg) create public awareness through information, education and communication campaign and educate the waste generators</p>	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.	

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23	<p>Rule 19 Criteria for Duties regarding setting-up solid waste processing and treatment facility</p> <p>Rule 20 Criteria and actions to be taken for solid waste management in hilly areas.-</p> <p>Rule 21 Criteria for waste to energy process</p>	<p>These provisions will be incorporated, mutatis mutandi, in the Karnataka State Rural Sanitation Policy which will be readied by April-2019</p>	<p>March - 2022</p>
24	<p>Rule 22 Time frame for implementation</p>	<p>The criteria/parameters mentioned in this Rule are being incorporated in the Karnataka State Rural Sanitation Policy which will be readied by April-2019</p>	
25	<p>Rule 23 State Level Advisory Body (SLAB)</p>	<p>Action will be taken to constitute SLAB for the rural areas</p>	

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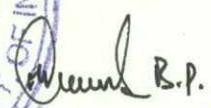
Status of compliance to Solid Management Rule, 2016 by Karnataka State Pollution Control Board

SI No	SWM rule clause	Provisions of SWM rules, 2016	Action taken
1	16(1)(a)	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 13.11.2018).
2	16(1)(b)	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.
3	16(1)(c)	Examine the proposal for authorization 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 authorized by the local body;	After the receipt of application, the facilities are inspected by the Regional officers .
4	16(1)(d)	While examining the proposal for authorization, 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
5	16(1)(e)	Issue authorization within a period of sixty days in Form II to the local body or an operator of a facility or any other agency authorized by local body stipulating compliance criteria and	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

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Sl No	SWM rule clause	Provisions of SWM rules, 2016	Action taken
		environmental standards as specified in Schedules I and II including other conditions, as may be necessary;	
6	16(1)(f)	Synchronize the validity of said authorization with the validity of the consents	the validity of the consent and authorization are synchronized
7	16(1)(g)	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.
8	16(1) (h)	On receipt of application for renewal, renew the authorization 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 authorization, 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
9	16(2)	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 authorization.	Procedure is being followed.
10	16(3)	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.
11	16(4)	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	Regional Officers of KSPCB regularly inspect and monitor the compliance standards of the MSW sites as per Schedules I and II.

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Sl No	SWM rule clause	Provisions of SWM rules, 2016	Action taken
6		authorization 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.	
12	16(5)	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.
13	16(6)	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 been 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.
14	24(3)	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 2017-18 is submitted on 23-01-2019* to CPCB.

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Compliance to Plastic Waste Management Rules - 2016

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S.No	DUTIES	COMPLIANCE
1	<p>The manufacture, importer stocking, distribution, sale and use of carry bags, plastic sheets or like, or cover made of plastic sheet and multilayered packaging, shall be subject to the following conditions, namely:</p> <ol style="list-style-type: none"> 1. carry bags and plastic packaging shall either be in natural shade which is without any added pigments or made using only those pigments and colourants which are in conformity with Indian Standard : IS 9833:1981 titled as "List of pigments and colourants for use in plastics in contact with foodstuffs, pharmaceuticals and drinking water", as amended from time to time; 2. Carry bags made of recycled plastic or products made of recycled plastic shall not be used for storing, carrying, dispensing or packaging ready to eat or drink food stuff; 3. carry bag made of virgin or recycled plastic, shall not be less than fifty microns in thickness; 4. plastic sheet or like, which is not an integral part of multilayered packaging and cover made of plastic sheet used for packaging, wrapping the commodity shall not be less than fifty microns in thickness except where the thickness of such plastic sheets impair the functionality of the product; 5. the manufacturer shall not sell or provide or arrange plastic to be used as raw material to a producer, not having valid registration from the concerned State Pollution Control Boards or Pollution Control Committee; 6. sachets using plastic material shall not be used for storing, packing or selling gutkha, tobacco and pan masala; 7. recycling of plastic waste shall conform to the Indian Standard: IS 14534:1998 titled as Guidelines for Recycling of Plastics, as amended from time to time; The provision of thickness shall not be applicable to carry bags made up of compostable plastic. Carry bags made from compostable plastics shall conform to the Indian Standard: IS 17088:2008 titled as Specifications for Compostable Plastics, as amended from time to time. The manufacturers or seller of compostable plastic carry bags shall obtain a certificate from the Central Pollution Control Board before marketing or selling; and 8. Plastic material, in any form including Vinyl Acetate - Maleic Acid - Vinyl Chloride Copolymer, shall not be used in any package for packaging gutkha, pan masala and tobacco in all forms. 	<ul style="list-style-type: none"> • Department of Forest Ecology, & Environment, GOK under Section 5 of EPA 1986, issued State Gazette Notification No. FEE 17 EPC 2012, Bangalore dated 11.03.2016 to ban all types of plastics like plastic carry bags, plastic banners, plastic buntings, flex, plastic flags, plastic plates, plastic cups, plastic spoons, plastic sheets used for spreading on dining table irrespective of thickness including the above items made of thermocoal and plastic which use plastic micro beads. • Further, no industry or person shall manufacture, supply, store, transport, sale and/or distribute the above mentioned plastic items. <p>Following actions have been taken up to implement the same.</p> <ul style="list-style-type: none"> • Directions have been written to all DCs regarding important provisions of PWM Rules 2016. • Letters/Circulars are being regularly sent to all District Commissioners to maintain the tempo in implementation of certain banned plastic items. • Also fines/penalties are being imposed on the defaulters. <p>However with these best efforts in the State & ULB level, banned plastic waste is still finding its way into the waste stream along with integrated plastic packaging materials</p>
The plastic waste management by the urban local bodies in their respective jurisdiction shall be as under:-		
1	<p>Plastic waste, which can be recycled, shall be channelized to registered plastic waste recycler and recycling of plastic shall conform to the Indian Standard: IS 14534:1998 titled as Guidelines for Recycling of Plastics, as amended from time to time.</p>	<ul style="list-style-type: none"> • Dry waste invariably comprises of plastic waste is taken to DWCC, where the waste pickers/pourkarmikas will segregate the recyclable & reusable materials from the stream & will be sold to registered resellers/recyclers.



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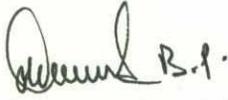
S.No	DUTIES	COMPLIANCE
2	Local bodies shall encourage the use of plastic waste (preferably the plastic waste which cannot be further recycled) for road construction as per Indian Road Congress guidelines or energy recovery or waste to oil etc. The standards and pollution control norms specified by the prescribed authority for these technologies shall be complied with.	<ul style="list-style-type: none"> A proposal has been submitted to PWD to include certain percentage of waste in road construction by fixing the SR rates. PWD Department is yet to incorporate this in the SR for effective implementation.
3	Thermo set plastic waste shall be processed and disposed off as per the guidelines issued from time to time by the Central Pollution Control Board.	<ul style="list-style-type: none"> The non-recyclable plastics in DWCC will be bailed & managed as per CPCB guidelines
4	The inert from recycling or processing facilities of plastic waste shall be disposed of in compliance with the Solid Waste Management Rules, 2000 or as amended from time to time.	
RESPONSIBILITY OF LOCAL BODY		
1	Every local body shall be responsible for development and setting up of infrastructure for segregation, collection, storage, transportation, processing and disposal of the plastic waste either on its own or by engaging agencies or producers.	<ul style="list-style-type: none"> Steps are taken at all ULBs to collect the municipal solid waste in a segregated manner i.e., wet & dry. So far, 365 Dry waste Collection Centres (DWCC) has been set for segregation, collection, storage, transportation, processing and disposal of the plastic waste. Budgetary provision is also made for the maintenance of the same.
2	<p>The local body shall be responsible for setting up, operationalisation and co-ordination of the waste management system and for performing the associated functions, namely:-</p> <p>i. Ensuring segregation, collection, storage, transportation, processing and disposal of plastic waste;</p> <p>ii. Ensuring that no damage is caused to the environment during this process;</p> <p>iii. Ensuring channelization of recyclable plastic waste fraction to recyclers;</p> <p>iv. Ensuring processing and disposal on non-recyclable fraction of plastic waste in accordance with the guidelines issued by the central pollution control board;</p>	<ul style="list-style-type: none"> SWM DPRs under Swachh Bharat Mission has made provision for development of infrastructure required for enabling source segregation & transportation, processing and disposal in Dry Waste Collection Centre (DWCC) in all the ULBs. The non-recyclable plastics in DWCC will be bailed & managed as per CPCB guidelines
	v. Creating awareness among all stakeholders about their responsibilities;	<ul style="list-style-type: none"> Along with the SWM awareness programs, awareness about the banned plastic items & alternatives available are also addressed. Awareness is also created among the people to use paper or jute or recyclable materials instead of using plastic bags. EMPRIs DOs & DONTs on plastic ban & CPCB Guidelines for Co-processing of plastic waste in Cement Kilns are circulated among ULBs to follow up.



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S.No	DUTIES	COMPLIANCE
	vi. Engaging civil societies or groups working with waste pickers; and	<ul style="list-style-type: none"> • Almost all the districts of the state have carried out enumeration of waste pickers/informal sectors and have issued ID cards • Till now, 2420 no. of rag pickers were identified & used in plastic waste management in various ULBs
	vii. Ensuring that open burning of plastic waste does not take place.	<ul style="list-style-type: none"> • 232 number of ULBs out of 279 ULBs vide notification has banned burning of solid/plastic waste
3	The local body to frame bye-laws incorporating the provisions of these rules	<ul style="list-style-type: none"> • In order to bring uniformity in byelaws with regard to Solid Waste Management, Plastic Waste Management & Construction & Demolition Waste Management, a model byelaw has been prepared at DMA office. Once approved by government will be circulated to all ULBs for adoption.
PRESCRIBED AUTHORITY		
	The concerned Secretary-in-charge of Urban Development of the State or a Union Territory shall be the authority for enforcement of the provisions of these rules relating to waste management by waste generator, use of plastic carry bags, plastic sheets or like, covers made of plastic sheets and multi layered packaging.	<ul style="list-style-type: none"> • As per the Gazette Notification of Department of Forest Ecology, & Environment, GOK No.FEE 17 EPC 2012, dated 11.03.2016, the following officers are conferred to initiate legal action in case of incompliance of the PWM Rule 2016:
2	The authorities referred shall take the assistance of the District Magistrate or the Deputy Commissioner within the territorial limits of the jurisdiction of the concerned district in the enforcement of the provisions of these rules.	<ol style="list-style-type: none"> 1. Secretary to Government- Department of Forest Ecology, & Environment 2. Chairman & Member Secretary, KSPCB, 3. Deputy Commissioners of the Districts. 4. Assistant Commissioners of Revenue Sub Divisions, 5. Regional officers, KSPCB.
EXPLICIT PRICING OF CARRY BAGS		
1	<p>The shopkeepers and street vendors willing to provide plastic carry bags for dispensing any commodity shall register with local body. The local body shall, within a period of six months from the date of final publication of these rules in the Official Gazette of India notification of these rules, by notification or an order under their appropriate state statute or byelaws shall make provisions for such registration on payment of plastic waste management fee of minimum rupees forty eight thousand @ rupees four thousand per month.</p> <p>The concerned local body may prescribe higher plastic waste management fee, depending upon the sale capacity. The registered shop keepers shall display at prominent place that plastic carry bags are given on payment.</p>	NA


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S.No	DUTIES	COMPLIANCE
	STATE LEVEL MONITORING COMMITTEE.-	
1	<p>The State government or the union Territory shall, for the purpose of effective monitoring of implementation of these rules, constitute a State Level Advisory Committee consisting of the following persons, namely;</p> <ol style="list-style-type: none"> The Secretary, Department of Urban Development - Chairman Director from State Department of Environment - Member Member Secretary from State Pollution Control Board or Pollution Control Committee - Member Municipal Commissioner - Member One expert from Local Body - Member One expert from Non-Governmental involved in Waste Management - Member Commissioner, Value Added Tax or his nominee, - Member Sales Tax Commissioner or Officer - Member Representative of Plastic Association, Drug Manufacturers Association, Chemical Manufacturers Association - Member One expert from the field of Industry - Member and One expert from the field of academic institution - Member Director, Municipal Administration - Convener <p>The State Level Advisory Body shall meet at least once in Six Month and may invite experts, if it considers necessary</p>	<p>State Level Plastic Advisory Committee has been formulated in 24.10.2016 to review the implementation of Plastic Waste Management Rules 2016 under the Chairmanship of the Additional Chief Secretary, GOK with members from various other departments.</p>
2	<p>Every local body shall prepare and submit an annual report in Form -V to the concerned Secretary in-charge of the Urban Development Department under intimation to the concerned State Pollution Control Board or Pollution Control Committee by the 30th June, every year.</p>	<ul style="list-style-type: none"> All the local bodies are submitting the Form V of PWM Rule 2016 to the UDD within the stipulated time limit.

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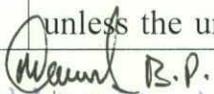
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Compliance to the Plastic Waste Management Rule, 2016 by Karnataka State Pollution Control Board

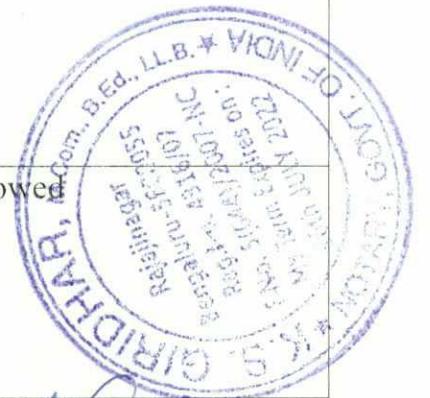
Sl No	PWM rule clause	Provisions of PWM rules, 2016	Action taken
1	12(1)	The State Pollution Control Board be the authority for enforcement of the provisions of these rules relating to registration, manufacture of plastic products and multilayered packaging, processing and disposal of plastic wastes	Enforcing the provisions of the Rules
2	13(1)	Registration of producer, recyclers and manufacturer,- No person shall manufacture carry bags or recycle plastic bags or multilayered packaging unless the person has obtained a registration from the State Pollution Control Board or the Pollution Control Committee of the Union Territory concerned, as the case may be, prior to the commencement of production;	In the state of Karnataka manufacturing, storage, selling , usage of plastic carry bags any size or thickness are banned vide notification dated 11-3-2016
3	13(2)	Every producer shall, for the purpose of registration or for renewal of registration, make an application to the State Pollution Control Board or the Pollution Control Committee of the Union territory concerned, in Form I	Application for registration under Form-I is being accepted. The Board has issued registration for Producer (Manufacturers) - 40 Producer & Brand Owner (User) – 44.
4	13(3)	Every person recycling or processing waste or proposing to recycle or process plastic waste shall make an application to the State Pollution Control Board or the Pollution Control Committee, for grant of registration or renewal of registration for the recycling unit, in Form II.	Application for registration under Form-II is being accepted. The Board has issued registration for Plastic waste recycling-52
5	13(4)	Every manufacturer engaged in manufacturer of plastic to be used as raw material by the producer shall make an application to the State Pollution Control Board or the Pollution Control Committee of the Union territory concerned, for the grant of registration or for the renewal of registration, in Form III.	Board has not issued consent to the manufacturer engaged in manufacturer of plastic to be used as raw material by the producer .
6	13(5)	The State Pollution Control Board or the Pollution Control Committee shall not issue or renew registration to plastic waste recycling or processing units unless the unit possesses a valid consent	Is being followed


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Sl No	PWM rule clause	Provisions of PWM rules, 2016	Action taken
		under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) and the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) along with a certificate of registration issued by the District Industries Centre or any other Government agency authorized in this regard.	
7	13(6)	The State Pollution Control Board or the Pollution Control Committee shall not renew registration of producer unless the producer possesses and action plan endorsed by the Secretary in charge of Urban Development of the concerned State or Union Territory for setting of plastic waste management system.	MOEF &CC, GOI has constituted a core group on 27.12.2018 under the chairmanship of Additional director, CPCB to formulate guidelines for implementation of Extended Producer Responsibility including role of ULBs, Municipalities.
	13(7)	On receipt of the application complete in all respects for the registration for recycling or processing of plastic waste under sub-rule (3), the State Pollution Control Board may, after such inquiry as it considers necessary and on being satisfied that the applicant possesses appropriate facilities, technical capabilities and equipment to handle plastic waste safely, may grant registration to the applicant on fulfillment of the conditions as may be laid down in terms of registration.	Registration for recycler is being given provided he follows manufacturing process as per IS 14534:1998
9	13(8)	Every State Pollution Control Board or Pollution Control Committee shall take a decision on the grant of registration within ninety days of receipt of an application which is complete in all respects.	Generally followed
10	13(9)	The registration granted under this rule shall initially be valid for a period of one year, unless revoked, suspended or cancelled and shall subsequently be granted for three years.	Being followed
11	13(10)	State Pollution Control Board or the Pollution Control Committees shall not revoke, suspend or cancel registration without providing the opportunity of a hearing to the producer or person engaged in recycling or processing of plastic wastes.	So far not revoked, suspend or cancelled registration. However while revoking, suspending or cancelling registration due procedure will be followed.



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Sl No	PWM rule clause	Provisions of PWM rules, 2016	Action taken
12	13(11)	Every application for renewal of registration shall be made at least one hundred twenty days before the expiry of the validity of the registration certificate	Condition are stipulated while granting registration that the applicant shall at least one hundred twenty days before the expiry of the validity of the registration certificate
13	17 (3)	Each State Pollution Control Board or Pollution Control Committee shall prepare and submit an annual report in Form VI to the CPCB on the implementation of these rules by the 31 st July, of every year	Annual report for the year 2017-18 submitted to CPCB

Other information

1. Annual report for the year 2017-18 submitted to CPCB on 23-01-2019 (last date of submission was 31-7-2018. The delay is due to non submission of returns by BBMP and DMA in time.
2. Action taken by KSPCB in Relation to plastic Ban order and Plastic waste Management Rules, 2016

I. Plastic ban order

- Directions issued under section 5 of Environment (Protection) Act, 1986 to the banned items manufacturing units – 93
- Number of directions issued under section 5 of Environment (Protection) Act, 1986 withdrawn - 47 (reasons for withdrawal - Changed production from banned to non banned activity, closing off operation, shifting of industry)
- Number of Proposed directions issued under section 5 of Environment (Protection) Act, 1986 for violations – 36
- Number of Court cases filed-12

II. Initiatives under the Plastic waste management

- Board is encouraging the recycling of plastic waste.
- Board has permitted cement industries to use plastic waste for co-processing as per the guidelines notified by CPCB "Utilization of plastic waste in cement kiln".

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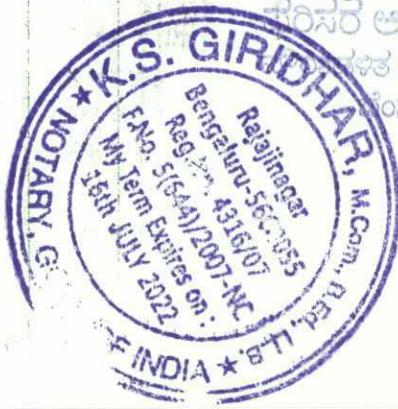
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COMPLIANCE REPORT TO BIOMEDICAL WASTE MANAGEMENT RULES 2016-KARNATAKA

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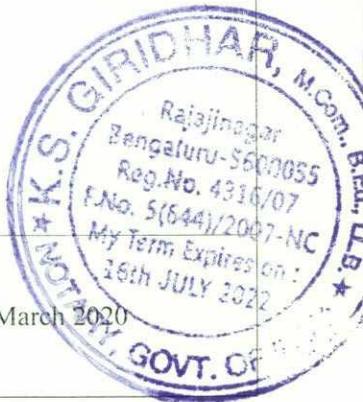
S. NO.	PRINCIPAL RULE 4	DUTIES OF THE OCCUPIER	ACTION TAKEN	IMPLEMENTATION STATUS	PROPOSED TIMELINE FOR 100% COMPLIANCE
1.	Clause (a)	Steps to ensure that Biomedical Waste is handled without any adverse effect to Human Health and the environment and in accordance with these rules.	Instructions have been given to all the District Health Officers to ensure Biomedical Waste is handled and disposed as per BMW Rules 2016 during the Monthly Review.	All the Healthcare Facilities have been supplied with Color Coded Bins for segregation at the point of Generation. Out of 29,000 Healthcare Facilities (GOVT+ PVT) 22187 Institutions have tie up with Common Biomedical Waste Treatment Facilities to Dispose Biomedical Waste. 605 Government Healthcare Facilities disposing BMW on-site by Deep Burial approved by State Pollution Control Board. These are the Institutions which are interior in tribal and hilly areas.	Remaining HCF's will be tied up with CBMWTF by March 2020.
2.	Clause (b)	Provision within the premises for safe, Ventilated and secured location for storage of segregated biomedical waste in color coded bags or containers.	31 Government Healthcare Facilities coming under UNIDO Project has been provided with Storage Room. Few of the Non- Project Government Hospitals have made provision for storage of BMW.	Large number of Healthcare Facilities requires BMW Storage Room. This involves financial requirement. Hence it is decided to take construction of BMW Storage Room in a phased manner in the Government.	By the year 2020 100 Government HCF's will be provided with BMW Storage Room.
3.	Clause (c)	Pre-treatment of laboratory waste, microbiological waste, blood samples and blood bags through disinfection or sterilisation on-site in the manner as prescribed by the WHO or guidelines on safe management of wastes from health care activities and WHO Blue Book, 2014 and then sent to common biomedical waste treatment facility for final disposal.	4 large Hospitals (Medical College Hospitals) in the State have been supplied with Microwave Equipment to disinfect Laboratory, Microbiological and recyclable plastic waste at the Institutional Level. Remaining Healthcare Facilities are pre-treating the waste by using Autoclaves and disinfection with Sodium Hypochlorite solution.	Compliance to this is implemented by all the Institutions.	-
4.	Clause (d)	Phase out use of chlorinated plastic bags and gloves by 27 th March 2019.	Administrative Medical Officers have been instructed to procure and supply Non-chlorinated Liners for segregation of Biomedical Waste.	There were some problems in manufacturing of Non-chlorinated liners for segregation of Biomedical Waste. Some companies have successfully come out producing Non-Chlorinated Liners which is being procured by Healthcare Facilities.	March 2020

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5.	Clause (e)	Dispose of solid waste other than biomedical waste in accordance with the provisions of respective waste management rules under the relevant laws and amended time to time	The Healthcare Facilities were instructed not to mix Biomedical Waste with Solid Waste.	Solid Waste is handed over to the concerned Corporation and Municipalities.	
6.	Clause (f)	Not to give treated biomedical waste with municipal solid waste.	The segregated Biomedical Waste is handed over to CBMWTF.	Complied with Rules.	
7.	Clause (g)	Provide training to all its Healthcare Workers and others, involved in handling of biomedical waste at the time of induction and thereafter at least once every year and the details of training programmes conducted, number of personnel trained and number of personnel not undergone any training shall be provided in the annual report.	28796 Healthcare Workers have been trained in handling Biomedical Waste in the Healthcare Facilities. All the Principals of District Training Centres have been trained as TOT's and instructed to take up Training for the remaining Healthcare Workers in the respective Districts. 8000 Healthcare Workers have been trained on Handling Biomedical Waste under UNIDO Project.	Remaining Healthcare Workers will be trained in Phased manner.	December 2019
8.	Clause (h)	Immunise all its healthcare workers and others, involved in handling biomedical waste for protection against diseases including Hepatitis B and Tetanus that are likely to be transmitted by handling biomedical waste, in the manner as prescribed in the national immunisation policy or the guidelines of the Ministry of Health and Family Welfare issued from time to time.	District Health Officers have been instructed to immunise the new entrance to Department during induction to immunise with Hepatitis B & Tetanus Toxoid.	7000 Healthcare Workers from Project Hospitals and 20,000 Workers from Non- Project Hospitals have been given Hepatitis B and Tetanus Toxoid.	100% Immunisation Coverage by March 2020
9.	Clause (i)	Establish a bar-code system for bags or containers containing biomedical waste to be sent out of the premises or for further treatment and disposal in accordance with the guidelines issued by the "Central Pollution Control Board by 27 th March 2019".	Instruction has been given to Administrative Medical Officers of major hospitals to comply with bar-coding of BMW bags/ containers.	Bar-coding is implemented in the 3 Hospitals and remaining will be followed up.	March 2020
10.	Clause (j)	Ensure segregation of liquid chemical waste at source and ensure pre-treatment or neutralization prior to mixing with other effluents generated	For Healthcare Facilities above 30-Bedded there is requirement of STP as per BMW Rules 2016. Each STP cost on an Average of Rupees 20-30 Lakhs. Because of Financial constraint, it is proposed to	Liquid waste is treated with 1% Sodium Hypochlorite solution at Labor Room, OT and Laboratory in all Healthcare Facilities. 2567 Liquid Disinfection Units approved by Pollution Control Board is installed in Healthcare Facilities	Establishment of STP for 17 Major Hospital by the end of March 2020.

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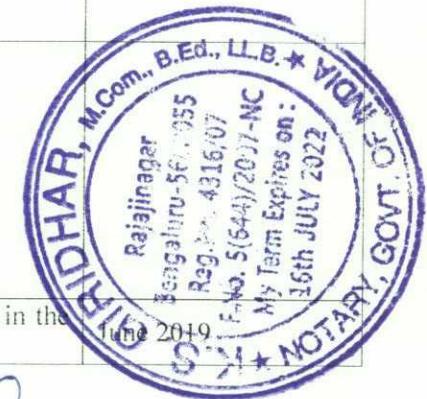
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		from HCF's.	take up provision of STP to 17 District Hospitals this year. Remaining will be done in a phased manner.	across State.	
11.	Clause (k)	Ensure treatment and disposal of Liquid waste in accordance with Water (Prevention and Control of Pollution) Act, 1974 (6 of 1674).	Treatment and Disposal of liquid waste in accordance with Water Act will be done in a Phased Manner in co-terminus with Clause (j)	-	Establishment of STP for another 50 HCF's will be done by December 2020.
12.	Clause (l)	ensure occupational safety of all its health care workers and others involved in handling of bio-medical waste by providing appropriate and adequate personal protective equipments;	Personal Protective Equipments' have been supplied to all Healthcare Facilities.	Personal Protective Equipments are supplied to all the HCF's and Waste Handlers are using it during their daily work.	-
13.	Clause (m)	conduct health check up at the time of induction and at least once in a year for all its health care workers and others involved in handling of bio- medical waste and maintain the records for the same;	Administrative Medical Officers have been instructed to complete Health Check-up of remaining Staffs.	5505 Staffs have undergone Health check-ups.	March 2020
14.	Clause (n)	All bedded healthcare units maintain and update on day to day basis the bio-medical waste management register and display the monthly record on its website according to the bio-medical waste generated in terms of category and colour coding as specified in Schedule I;	Registers have been supplied to all the Healthcare Facilities by the Project.	Registers are maintained.	-
15.	Clause (o)	report major accidents including accidents caused by fire hazards, blasts during handling of bio-medical waste and the remedial action taken and the records relevant thereto, (including nil report) in Form I to the prescribed authority and also along with the annual report;	Administrative Medical Officers have been instructed to report Major Accidents as per BMW Rules 2016 Format	No Major Accidents Reported	
16.	Clause (p)	All the Healthcare Facilities (any number of beds) shall make available	Software has been developed by the Project and implemented in 31 HCF's and instructed to upscale	Yet to be implemented in all the Healthcare Facilities in the State.	June 2019

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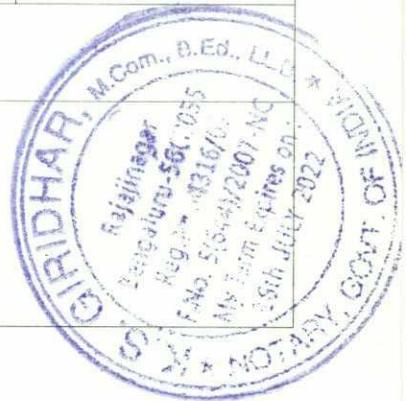


		the annual report on its web-site within two years from the date of notification of Biomedical Waste Management (Amendment) Rules, 2018;	to all the other HCF's linking to the Departmental Website and to State Pollution Control Board.		
17.	Clause (q)	inform the prescribed authority immediately in case the operator of a facility does not collect the bio-medical waste within the intended time or as per the agreed time;	All the AMO's have been instructed to report to KSPCB if the operator fails to lift BMW within 48 hours.	-	-
18.	Clause (r)	establish a system to review and monitor the activities related to bio-medical waste management, either through an existing committee or by forming a new committee and the Committee shall meet once in every six months and the record of the minutes of the meetings of this committee shall be submitted along with the annual report to the prescribed authority and the healthcare establishments having less than thirty beds shall designate a qualified person to review and monitor the activities relating to bio-medical waste management within that establishment and submit the annual report;	State Level Advisory Committee Meeting was held on 10 th April 2019. Principal Secretary reviewed the programme and instructed the Deputy Commissioners' to conduct meeting and send report immediately.	State Advisory Committee for BMW Monitoring and District Level Monitoring Committees has been constituted to review BMW Management.	-
19.	Clause (s)	maintain all record for operation of incineration, hydro or autoclaving etc., for a period of five years;		Not Applicable	
20.	Clause (t)	Existing incinerators to achieve the standards for treatment and disposal of bio-medical waste as specified in Schedule II for retention time in secondary chamber and Dioxin and Furans within two years from the date of this notification.		Not Applicable	

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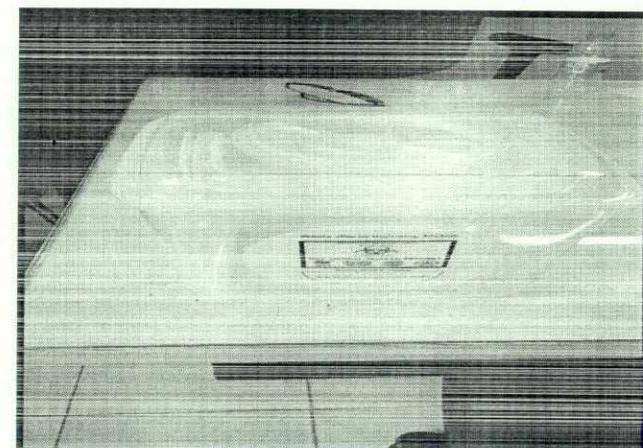
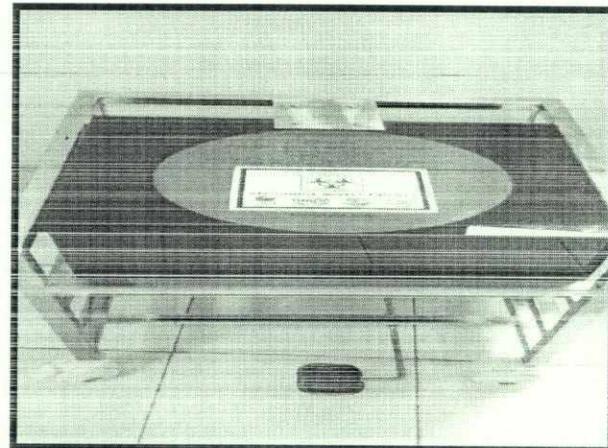


Note:

"Environmentally Sound Management of Medical Waste in India" is an initiative of Ministry of Environment, Forest and Climate Change. Global Environment Facility (GEF) is the Funding Agency and United Nation Industrial development Organization (UNIDO)-National Implementing Agency. Department of Health and Family Welfare is the State Implementing Agency in Karnataka. Under the Project 31 Healthcare Facilities have been selected covering Large, Medium and Small hospitals for implementing Project Activities.

Supply of Color Coded Bins, Personal Protective Equipments, Mobile Waste Collection Trolleys, Registers for Recording BMW Generation, Injury Registers, Posters on Segregation, BMW Rule Book and Health Records have been supplied to all the 31 Healthcare Facilities under the Project. Capacity Building is one of the Major activities under the project and all the 31 HCF Staffs have been trained in handling Biomedical Waste as per Rules. Temporary Storage Rooms were also constructed in all the 31 HCF's and 4 Large Hospitals under the project have been supplied with Microwave for disinfection of Recyclable plastics, microbiological and Laboratory waste.

Biomedical Waste Management Monitoring Software for daily data entry of BMW Generation in the HCF's have been developed and linked to the Departmental Website. Training Manuals for Doctors to Waste Handlers, SOP's have been developed under the Project in both English and Kannada and supplied to all the 31 HCF's and the link to access same has been attached to the Department Website to be used by all the Healthcare Facilities.

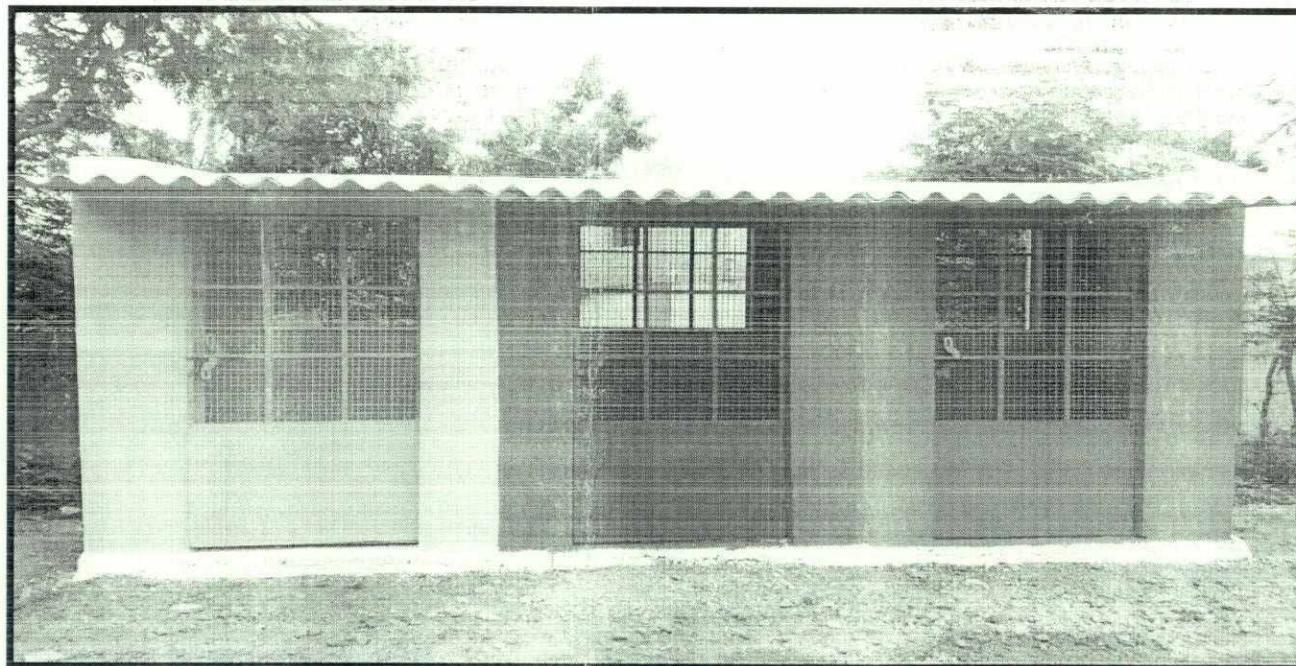
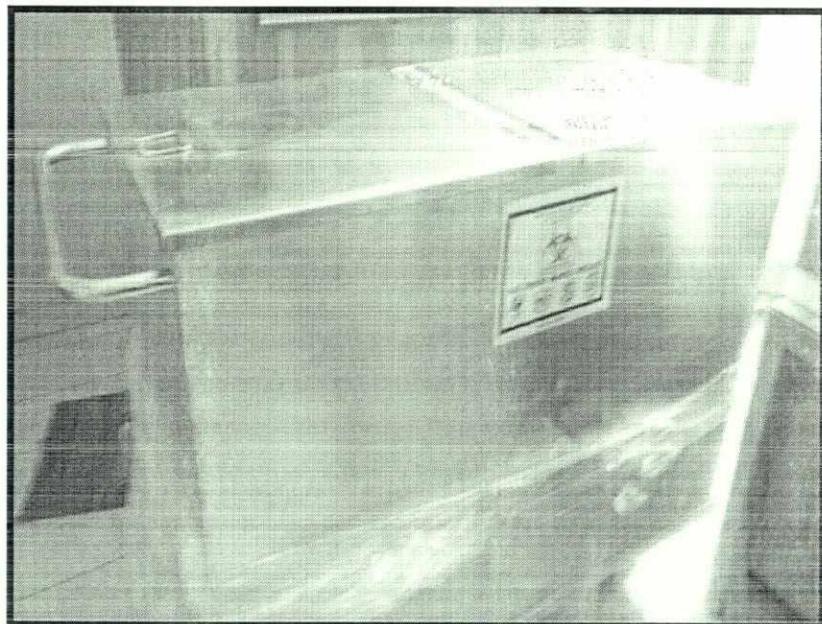


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DEPARTMENT OF HEALTH & FAMILY WELFARE SERVICES, BANGALORE

Environmentally Sound Management of Medical Waste in India
 GEF/UNIDO-MOE/EC-Project
 Email: gcpunido2015@gmail.com

HEALTH RECORD

Name: _____

Age: _____

Sex: Male Female

OPD/IPD No. of the Employee: _____

Name of Health Care Facility: _____

Address of Residence: _____

5. Immunization Status

Name of the vaccine	Doses/Dates
DT	

6. Investigations:

6.1. Blood

6.2. Urine

6.3. Stool

6.4. Microscopic

7. History of major accident while handling DMW

8. Personal Protective Equipment used: Yes/No

Apron	Boots	Mask	Goggles	Gloves	Uniform

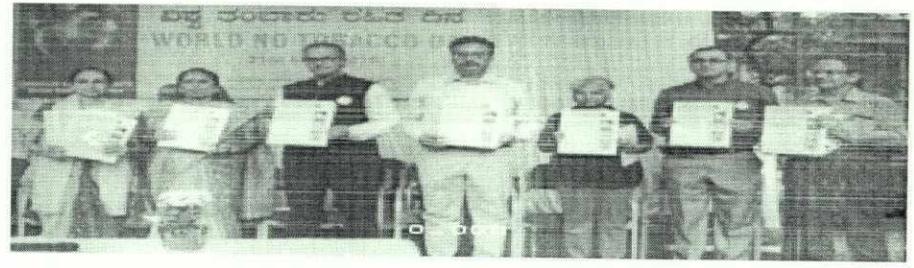
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Sri Jawaid Akhtar, IAS
 Principal Secretary to Government
 Health & Family Welfare Department

Dispensing of aids to Specially Abled | Karnataka Integrated Public Health Policy - 2017 | MDU between SAMSUNG and Department of Health & Family Welfare Services, GOVT. Of Karnataka. 200 JanAushadhi Centres Details with (Abstracts) | New registration forms for Heart/Lungs, Kidney/Pancreas/Liver transplantations | Contractual Engagement of Urban Health Volunteer Male under NUHM for NVBDCP - Guidelines | Naara Health Care Campaign Programme- Concept Note and Early Trends | Contractual Engagement of Software Dashboard Universal Health Care | AROGYA KARNATAKA : UNIVERSAL HEALTH COVERAGE | KPME Amendment and Gazette Notification: Draft rules of the KPME Act | About NIPAH Viral Fever | World Tobacco Day 31 May | Tender notification for Hiring Services of Chartered Accountant firm for Concurrent Audit of Districts and City Health & Family Welfare Society for the FY 2018-19 under NHM. | Recognised (empanelled) hospital list to treat Government Employees and their Family | Government of Karnataka invites applications from eligible Individuals/ Organization for nomination as Non- Official Members of the State Mental Health Authority and Application Form (http://ksmha.co.in) | 01/10/2018 ರಿಂದ ಅಭ್ಯರ್ಥಿಗಳಿಂದ ಅನ್ವಯಿಸಬೇಕಾದ ಅಭಿಮತ ಅಧಿಕಾರಿಗಳಿಗೆ ಸಿ.ಪಿ.ಸಿ. ಮೂಲಕ ಬಿ.ಪಿ. ಅರ್ಜಿ ಸಲ್ಲಿಸುವುದು ಮತ್ತು ಪರೀಕ್ಷೆಗಳನ್ನು ನೋಡುವುದರ ಬಗ್ಗೆ (B.P) ಇವುಗಳ ಬಗ್ಗೆ | Notification - Recruitment for the post of Mid Level Health Provider (MLHP) for Health and Wellness Centers (HWC) under CPHC-UHC Program (NHM). | Application for the post of Consultant Health Care Financing (HCF) in Karnataka State Health System Resource Center (KSHSRC) | EDI for Skill Development Training of SC/ST Candidates | DoHFW - e-Mail Policy and User Guide | List of Results for Test conducted on 17/02/2019 for the Post of MLPHP | Walk in interview for the post of II Consultant and Transplant Co-ordinators on Contract Basis is called on 12-03-2019. | Notification: Postponement of CGA Appointment counselling - reg.

Updates

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Welcome

Karnataka state is one of the pioneer states in the country in providing comprehensive public health services to its people. Even before the concept of Primary Health Centers was conceived by the government of India, the state had already made a beginning in establishing a number of PHUs for providing Comprehensive Health Care and a delivery system consisting of curative, preventive, promotive and rehabilitation health care to the people of the state. "HEALTH" is an asset to every person.

News and Events

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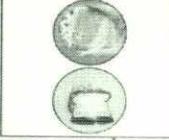
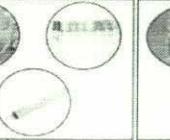
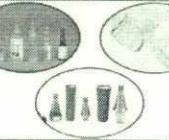
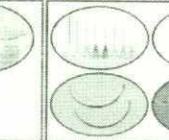
GOVERNMENT OF KARNATAKA DEPARTMENT OF H & F W SERVICES BIO-MEDICAL WASTE SEGREGATION





PUT THE RIGHT WASTE IN RIGHT BIN (Bio-Medical Waste Management Rules, 2016)



YELLOW CATEGORY	RED CATEGORY	BLUE CATEGORY	WHITE CATEGORY	YELLOW CATEGORY	YELLOW CATEGORY
<ul style="list-style-type: none"> Human Anatomical Waste Soiled Waste Soiled Linen & Beddings Animal Anatomical Waste 	<ul style="list-style-type: none"> Blood Bags Microbiology, Clinical & Laboratory Waste 	<ul style="list-style-type: none"> Tubings Bottles Gloves even soiled Urine bags Syringes Vaccinators 	<ul style="list-style-type: none"> Broken Glass Medicine vials Metallic Body Implants Ampoules 	<ul style="list-style-type: none"> Needles, Scalpel blades Syringes with fixed needles Blades, Burnt Needles 	<ul style="list-style-type: none"> Discarded Medicines Cytotoxic drugs Items contaminated with Cytotoxic drugs
<ul style="list-style-type: none"> Liquid Waste from OT/Lab Floor Washing Infected Secretions Discarded disinfectants 					
					
<p>DISPOSABLES</p> <p>Pre-treatment with Autoclave</p> <p>Non-Chlorinated Yellow Bag of 50 Micron</p>	<p>DISPOSABLES</p> <p>Non-Chlorinated Red Bag of 50 Micron</p>	<p>DISPOSABLES</p> <p>Cardboard Box with Blue Marking</p>	<p>DISPOSABLES</p> <p>White translucent Puncture Proof /Leak Proof /Tamper Proof Disposable Container</p>	<p>DISPOSABLES</p> <p>Non-Chlorinated Yellow Bag of 50 Micron</p>	<p>DISPOSABLES</p> <p>Pre-treatment with 10% Sodium Hypochlorite Solution</p>
<p>HAZARDOUS CONTAINER OPTIONS</p> <p>Incineration/Plasma Pyrolysis in CBWTF</p>	<p>HAZARDOUS CONTAINER OPTIONS</p> <p>Autoclave/Microwave/ Hydroclave/Sharredding/Recycled</p>	<p>HAZARDOUS CONTAINER OPTIONS</p> <p>Disinfection / Autoclave Microwaving / Recycled</p>	<p>HAZARDOUS CONTAINER OPTIONS</p> <p>Autoclaving / Shredding/ Mutilation/Sharp Pits/CBWTF</p>	<p>HAZARDOUS CONTAINER OPTIONS</p> <p>Incineration in CBWTF/ Return to Manufacturer</p>	<p>HAZARDOUS CONTAINER OPTIONS</p> <p>ETP/STP</p>

IMPORTANT INSTRUCTIONS FOR HEALTH CARE FACILITIES

- Temporary Storage Room - Provision for safe, ventilated, panic and lock-key Final Storage room.
- Pre-treatment - Pre-treat the laboratory waste, microbiological waste, blood samples and blood bags using Autoclave as per WHO.
- Chlorinated plastic bags - Phase out use of chlorinated plastic bags, gloves and blood bags.
- Annual training - Provide training to health workers at least once a year and give detail in Annual Report.
- Immunization - Immunize health workers by using in handling waste for protection of diseases.
- Bar code stickers - Place right bar code stickers on right color coded bag/ container.
- Personal protective equipments - Provide and ensure use of Personal Protective Equipments.
- Health check up - Conduct health check up of health workers at least once a year and keep record.
- BMV record - Maintain and update the bio-medical waste register and update record on your website on monthly basis.
- Accident Reporting - Report Major accidents such as fire hazard, leaks during handling of BMW within 24 hours in Form 7.

- Pre-treatment of liquid waste - Pre-treat the liquid waste with 10% sodium hypochlorite solution using 50% quantity.
- Authorization - Every Bin/box or box/boxed HCF shall obtain authorization under BMV Rules, 2016 (current under Water Act, 1974 and Air Act, 1981).
- Annual return - Submit Annual Return in Form - IV on or before 30th June every year.
- Website - Make website and display monthly waste generation record and Annual Report.
- Record Maintenance - Shall maintain record of generation, collection, reception, storage, treatment and disposal for a period of 5 years.
- Discarded medicines - Dispose of discarded medicines and cytotoxic drugs in separate yellow color bags with cytotoxic symbol.
- Medical Termination of Pregnancy Certificate - Issue Certificate by Obstetrician or Medical Superintendent before disposing off dead fetus below the viability period in CBWTF operator.
- Medical X-ray equipments - Use Mercury free equipments in your HCF.
- X-ray hyperfixer - Dispose X-ray hyperfixer and film to authorized facility of the Binnet. Cutting/trimming - Recyclable sharps waste shall be consolidated before disposal to prevent unauthorized use.

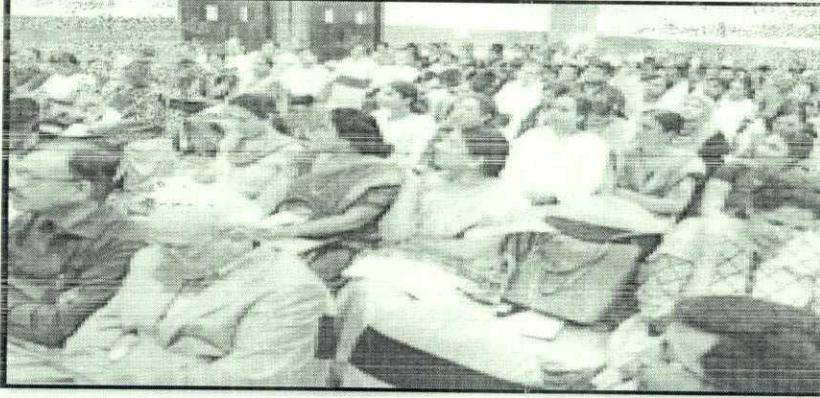
Website : www.karhfw.gov.in Email : pcunido2015@gmail.com Phone : 080-22273150



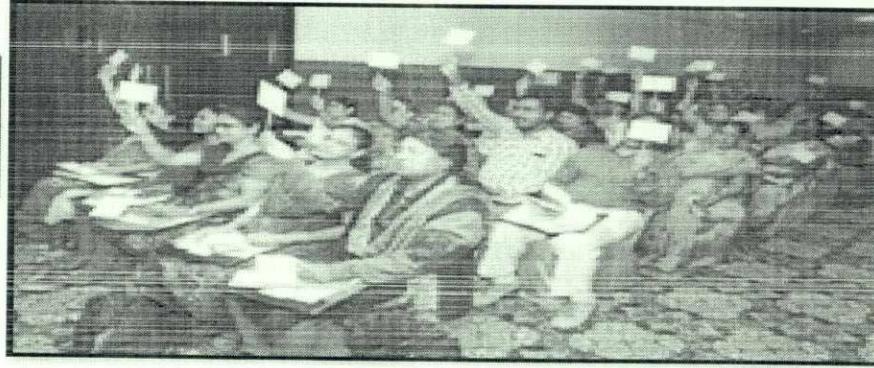
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4 Regional Level Workshops



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Link to BMW Monitoring Software and Data Entry- <https://kgis.ksrsac.in/bmw/>

Link to Access IEC's, SOP's and Training Modules- <https://www.biomedicalwastemanagementinindia.in/index.html>

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Compliance of Bio Medical Management Rule, 2006 by Karnataka State Pollution Control Board

Rule 9. Prescribed authority.-(1) The prescribed authority for implementation of the provisions of these rules shall be the State Pollution Control Boards in respect of States and Pollution Control Committees in respect of Union territories. The prescribed authorities shall comply with the responsibilities as stipulated in Schedule III of these rules.

Rule 10- procedure for authorization

Procedure for authorization.-Every occupier or operator handling bio-medical waste, irrespective of the quantity shall make an application in Form II to the prescribed authority i.e. State Pollution Control Board and Pollution Control Committee, as the case may be, for grant of authorization and the prescribed authority shall grant the provisional authorization in Form III and the validity of such authorization for bedded health care facility and operator of a common facility shall be synchronized with the validity of the consents.

Responsibilities of SPCB as per Schedule III of the Rule (Rule 6)

No	BWM rule clause	Provisions of BWM rules, 2016	Action taken
1	6	Inventrization of Occupiers and data on bio-medical waste generation, treatment & disposal	Regional Officers of KSPCB carryout inventrization of HCEs in their area and update the data in Form of filing annual reports of their jurisdictional area every year.
2	6	Compilation of data and submission of the same in annual report to Central Pollution Control Board within the stipulated time period.	KSPCB compile the data obtained from the Regional Officers and annual report for the year is regularly submitted to CPCB within the time frame. Annual report for the year 2017-2018 is submitted on 20-11-2019.
	6	Grant and renewal, suspension or refusal cancellation or of authorization under these rules (Rule 7, 8 and 10).	Based on the compliance by the HCEs, KSPCB grants, suspends or refuses, cancellation of authorization.
4	6	Monitoring of compliance of various provisions and conditions of authorization.	Regional Officers inspects the HCEs as part of the routine work to verify the compliance.
5	6	Action against health care facilities or common biomedical waste treatment facilities for violation of these rules (Rule 18).	Action against CBMWTDF is initiated whenever non-compliances / violations of the BMW Rules, 2016 are reported by the Regional Officers.
6	6	Organizing training programmes to staff of health care facilities and common bio-medical waste treatment facilities and State Pollution Control Boards or Pollution Control Committees Staff on segregation,	Regular training programmes / awareness programmes are conducted by the Board and also through EMPRI for the staff of HCEs in the State.

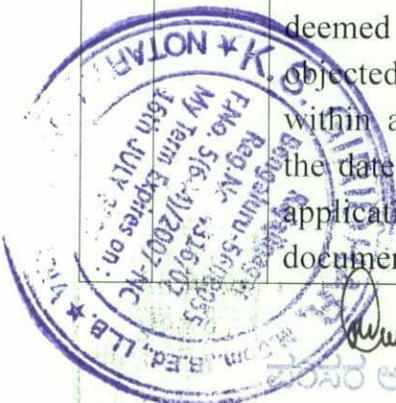


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Sl No	BWM rule clause	Provisions of BWM rules, 2016	Action taken
		collection, storage, transportation, treatment and disposal of bio-medical wastes	
7	6	Undertake or support research or operational research regarding bio-medical waste management.	
8	6	Any other function under these rules assigned by Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.	The following guidelines have been issued by MoEF & CC and CPCB in addition to BMW Rules, 2016 are also complied by KSPCB. <ul style="list-style-type: none"> Guidelines for Management of Healthcare Waste as per Biomedical Waste Management Rules, 2016 Guidelines for Bar Code System for Effective Management of Bio-medical Waste Revised Guidelines for Common Bio-medical Waste Treatment and Disposal Facilities Guidelines on Environmentally Sound Management of Mercury Waste generated from the Health Care Facilities Guidelines for management of healthcare waste as per BMW Rules, 2016 notified during 2018.
9	6	Implementation of recommendations of the Advisory Committee.	KSPCB comply with suggestions made by the State Advisory Committee towards implementation of Biomedical Rules, 2016.
10	6	Publish the list of Registered or Authorized (or give consent) Recyclers.	List of Registered or Authorized Recyclers are published in the KSPCB website.
11	6	Undertake and support third party audits of the common bio-medical waste treatment facilities in their State.	Board yet to take-up 3 rd party auditing of the common bio-medical waste treatment facilities in their State.
12	10(1)	The authorization shall be one time for non-bedded occupiers and the authorization in such cases shall be deemed to have been granted, if not objected by the prescribed authority within a period of ninety days from the date of receipt of duly completed application along with such necessary documents.	One time authorization is issued by KSPCB for non-bedded Health Care Establishments (HCEs) in the State.



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Compliance to Para 20(b) of NGT O.A 606/2018 order dated 16.03.2019: "Status of functioning of Committees constituted by this Order"

As per the direction of Hon'ble National Green Tribunal with respect to O/A No. 606/2018 order dated: 16.01.2019 State Level Committee under the Chairmanship of Hon'ble Justice Subhash B. Adi, Former Judge, High Court of Karnataka and special task force in every district having 4 members, one each nominated by District Magistrate, Superintendent of Police, Regional Officer of State Pollution Control Board and one person nominated by Chairman of District Legal Services Authority for awareness about MSW Rules is notified by the Department of Forest, Ecology and Environment on 13.02.2019.

Committee Meetings

1. First meeting of the State Level Committee was held on 15.02.2019.
2. Second meeting of the State Level Committee was held on 06.03.2019.
3. Third meeting of the State Level Committee is proposed on 05.04.2019.

Review Meeting and Field visit

1. Zonal level review meeting at Belgaum was held on 07.03.2019
2. Field visit of Solid Waste Facilities in Belgaum district carried out on 07.03.2019 and 08.03.2019.
3. Review meeting was held on 07.03.2019 with respect to waste management of Bruhat Bengaluru Mahanagara Palike which was followed by field visit to three MSW sites.
4. Committee visited Doddabidirukallu MSW processing facility on 9th April, 2019

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Arundhathi R.I.
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Compliance to Para 20(c) of NGT O.A 606/2018 order dated 16.03.2019: Status of the Action plan in compliance to vide Hon'ble NGT order dated 20.09.2018 in the News Item published in "The Hindu" authored by Shri Jacob Koshy titled "More river stretches are critically polluted (OA No 673/2018).

Karnataka State Pollution Control Board is monitoring **98 River Stations** as on date in this State under National Water quality Monitoring Programme (NWMP). The results are sent to Central Pollution Control Board (CPCB) **on a monthly basis**. By and large most of the River stretches falls under '**C' Class**. Based on the results (Years 2016 & 2017) submitted from various State Pollution Control Board's in the country, CPCB has come out with a quality criteria (BOD content is more than 3 mg/L) and declared as Polluted River Stretches.

The Polluted locations in a continuous sequence are defined as Polluted River Stretches and categorized in **five priority** classes based on BOD concentration exceeding to BOD levels >30 mg/l (**Priority I**), BOD between 20&30 mg/l (**Priority II**), BOD between 10&20mg/l (**Priority III**), BOD between 6-10 mg/l (**Priority IV**) and BOD between 3& 6 mg/l (**Priority V**).

Sl No.	Date	Action Taken Report
1	20.09.2018	Hon'ble National Green Tribunal ,Principal Bench ,New Delhi in original Application No.673/2018 dated 20th September , 2018 have noted that as per the assessment by the CPCB there are 351 polluted river stretches in the country, where the BOD content is more than 3 mg/L , out of which 17 river stretches are in the State of Karnataka. The Hon'ble National Green Tribunal have issued the directions vide above said order to prepare action plans within two months for bringing all the polluted river stretches to be fit at least for bathing purposes (i.e. BOD < 3 mg/L and FC < 500 MPN/100ml) within six months from the date of finalization of the action plans. Out of 17 identified polluted stretches 4 belong to Priority III, 7 belong to Priority IV and 6 belong to Priority V.
2	24.11.2018	In view of the directions of Hon'ble National Green Tribunal order dated 20.09.2018, the State Government has Constituted State level "River Rejuvenation Committee (RRC)" vide its Order No. FEE 214 EPC 2018, Bengaluru dated 24.11.2018 under the Chairmanship of Principal Secretary, Department of Ecology & Environment.
3	03.12.2018	1 st RRC Meeting was held on 03.12.2018 and proceedings of the meeting are uploaded in KSPCB website
4	13.12.2018	The River Rejuvenation Action Plans for all the 17 Polluted River Stretches as per the decision in the River Rejuvenation Committee (RRC) meeting has been prepared and the same was submitted to Hon'ble NGT and CPCB, Delhi on 13-12-2018 for consideration.
5	19.12.2018	After verification of submitted action plans from all the concerned States/UT's, Hon'ble NGT has issued further order on 19.12.2018 and directed to revise action plans & resubmit within 31.01.2019 by complying with para 11 of the Order dated 19.12.2018 and to make it available on KSPCB website

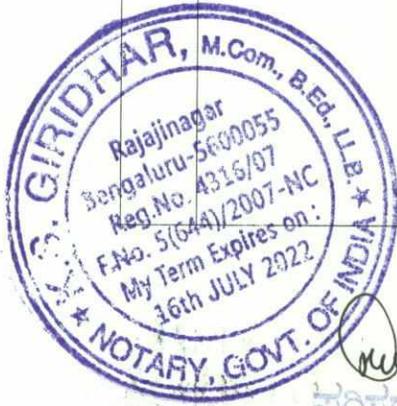


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Sl No	Date	Action Taken Report
6	03.01.2019	In Compliance to O.A. No. 673/2018 order dated 20.09.2018, Government of Karnataka has issued Order by constituting District level " Special Environment Surveillance Task Force " for 15 Districts on 03.01.2019 vide its Order No. FEE 214 EPC 2018, under the Chairmanship of the Deputy Commissioners of respective districts.
7	28.01.2019	2 nd RRC Meeting was held on 28.01.2019 to prepare revised River Rejuvenation Action Plan in compliance to order dated 19.12.2018 and proceedings of the meeting are uploaded in KSPCB website
8	30.01.2019	In compliance to the Hon'ble NGT Order on 19.12.2018, Revised Action Plans with budgetary provisions are submitted to Hon'ble NGT & CPCB, Delhi on 30-01-2019 for consideration. For implementation of action plans, the total estimated budget requirement is Rs.1427.20 Crores . Out of which the projects of Rs.827.93 Crores are already approved by the Government and the works are under progress as per the report submitted by KUWS&DB, BWSSB & Deputy Commissioners of respective Districts. Remaining proposed new projects require an estimated budget of Rs.599.27 Crores .
9	01.02.2019	A web page named " River Water Quality Management " related to polluted river stretches of Karnataka State O.A. No 673/2018 has been created and linked to the KSPCB website in compliance to Para 11 of order dated 19.12.2018.
10	25.02.2019	Monthly Data of Water quality and Classification related to water monitoring stations of 17 Polluted River Stretches for the year 2018-19 has been uploaded & URL link has been provided to CPCB, Delhi in Compliance to para 13 of O.A.No 673/2018 dated 19.12.2018.
11	27.02.2019	A consolidated report by CPCB, Delhi has been submitted to Hon'ble NGT on 27-02-2019 and requested to consider the following issues submitted by different States. <ol style="list-style-type: none"> 1. Time lines from six months to 2-3 years extending for compliance to the Hon'ble NGT Directions. 2. Rivers which are perennial only to be taken up for the rejuvenation. 3. Achieving goals of bathing criteria after implementation of the action plans. 4. Identification of polluted river stretches



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Sl No	Date	Action Taken Report
12	18.03.2019	<p>In compliance to the Hon'ble NGT Order on 19.12.2018, CPCB, Delhi in its letter dated 18-03-2019 to KSPCB informed to send performance guarantee money without any further delay as per Para 15 of the above said order where in the Hon'ble NGT directed to furnish performance guarantees for implementation of action plans within the stipulated time to the satisfaction of CPCB in the sum of:</p> <p>(i) Rs. 15 Crore for each of priority I & II Stretches. (ii) Rs. 10 Crore for each of priority III Stretches. (iii) Rs. 5 Crore for each of priority IV & V Stretches.</p> <p>For 17 identified Polluted River Stretches in Karnataka State, the total Performance Guarantee to be deposited is Rs. 105 Crores. The same to be arranged by the concerned departments viz., Directorate of Municipal Administration, Bangalore Water Supply and Sewerage Board and Karnataka Urban Water Supply and Drainage Board.</p>
13	28.03.2019	<p>3rd RRC Meeting was held on 28.03.2019 to review the progress on implementation of action plans for 17 polluted river stretches in Karnataka from the concerned Government Departments. Proceedings of the meeting along with action taken report is submitted to Hon'ble NGT and CPCB on 5.4.2019 and uploaded in KSPCB website.</p>
14	08.04.2019	<p>Hearing date of O.A. No 673/2018 before the Hon'ble NGT(PB) New Delhi was scheduled on 08.04.2019 and the order is awaited.</p>

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Compliance to Para 20(d) of NGT O.A 606/2018 order dated 16.03.2019: Status of functioning of Committees constituted in News Item publish in "Times of India" Authored by Shri Vishwa Mohan Titled "NCAP with multiple timelines to clear Air in 102 cities released around Aug 15, dated 8.10.2018.

The Hon'ble National Green Tribunal, Principal Bench, New Delhi in original Application No. 681 of 2018 dated 08.10.2018 has noted that, "NCAP with multiple timelines to clear air in 102 cities to be released around August 15. The National Clean Air Programme (NCAP) proposes to reduce air pollution in 102 cities.

Under National Ambient Air quality Monitoring Programme (NAMP) of CPCB, air quality data is compiled/analyzed with National ambient air quality standards for 4 pollutants viz SO₂, NO₂, PM₁₀ and PM_{2.5}. (PM₁₀-Particulate Matter size less than 10 micro meter and PM_{2.5}-Particulate Matter size less than 2.5 micro meters).

The CPCB has analyzed the ambient air quality of all major cities in India between the year 2011-15 and declared that 102 cities are non-attainment cities, where the air quality is worse than National ambient air quality standards consecutively in last five years.

In Karnataka, there are four non-attainment cities declared by CPCB namely, Bangalore, Hubli-Dharwad, Davanagere and Kalaburgi.

The Board has established 14 manual ambient air quality monitoring stations and 7 continuous ambient air quality monitoring stations (CAAQMS) in Bangalore city. The monitored data is transferring electronically to CPCB and KSPCB server. Every day Air Quality Index (AQI) of Bangalore city is sending to all the concerned departments through SMS to take action to reduce air pollution.

Similarly the Board has established two manual ambient air quality monitoring stations and one continuous ambient air quality monitoring stations at Hubli-Dharwad.

Two manual ambient air quality monitoring stations and one continuous ambient air quality monitoring stations at Davanagere.

One manual ambient air quality monitoring stations and one continuous ambient air quality monitoring stations at Kalaburagi.

All the stations are working and measured data is transferring electronically to CPCB and KSPCB server periodically.

The main reasons for high air pollution in these cities due to vehicular emissions, re-suspension of dust and other fugitive emissions, industrial pollution, bio mass burning, construction and demolition activities and D.G. sets.

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Sl No	Date	Action Taken
1	8.10.2018	The Hon'ble NGT has directed to prepare action plans to reduce air pollution by constituting six member Committee comprising Director of Environment, Transport, Industries, Urban development, Agriculture and Member Secretary, State Pollution Control Board. The Committee may be called "Air Quality Monitoring Committee (AQMC). The AQMC will function under the overall supervision and co-ordination of Principle Secretary of Environment of the concerned State.
2	24.11.2018	<p>In view of the directions of Hon'ble National Green Tribunal, the State Government has constituted six members Committee headed by Principle Secretary to Government, Ecology and Environment as the Chairman called as "Air Quality Monitoring Committee (AQMC) vide order No FEE 216 EPC 2018, Bangalore dated 24.11.2018. The Committee has drawn 46 actions points in Bangalore city. The Department of Ecology and Environment, GOK has entered the MoU with M/s CSTEP, Bangalore to carryout inventorization of air pollution sources and source apportionment study of Bangalore city. The Firm has started the work.</p> <ol style="list-style-type: none"> 1. The Hon'ble Supreme Court on 14.08.2003 in WP No. 13029/85 (Civil-PIL) (M. C. Mehta Vs. Union of India & Others) directed that the State shall draw action plan for lowering the rate of Particulate matter (PM10 & PM2.5) level in Bangalore City and constituted Task Force Meeting to Control of Air Pollution in Bangalore City headed by Additional Chief Secretary (Now Chief Secretary) and concerned Departments viz BBMP, BDA, Transport, Police, BMTC, KSRTC, NGO's and Truck and Bus Associations as Members on 02.09.2003 and recommended 14 point action plan to the state government. So far 24 times met and reviewed the action taken on 14 points. 2. The Hon'ble High Court of Karnataka has taken up Suo-Moto (PIL) due increase in air pollution levels in Bangalore city vide WP No. 39432/2013, issued the directions to the Board. As per the directions , the Board has issued the directions on 25.8.2014 to concerned Department under 31(A) of the Air (Prevention and Control of Pollution) Act 1981 to take step improve the air quality of Bangalore city to BBMP, BDA , Police Dept & Transport and constituted Co-ordination Committee headed by Member Secretary of the Board and concerned Departments as members. All the concerned Departments submitted the short term and long term action points to the Court. The Committee met 19 times and reviewed the actions taken repots of concerned Departments. 3. Efforts made by the Task Force Committee, Co-ordination Committee and developmental works of the State Government viz Introduction of B- Track – conversion of two ways into one ways,



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Sl No	Date	Action Taken												
		<p>Widening, Asphaltting and White toping of Roads, Mechanical sweeping of Roads, shifting Main Bus stand to Satellite Bus stands (Mysore Road, Peenya, Shanthinagar), Bus Day, Less Traffic day and Introduction of Metro Rail, air pollution levels though exceeded the national limits are decrease in trend after 2014-15 in Bangalore city. The data is as follows:</p> <table border="1"> <thead> <tr> <th>Years</th> <th>2014-15</th> <th>2015-16</th> <th>2016-17</th> <th>2017-18</th> <th>National Limits</th> </tr> </thead> <tbody> <tr> <td>Average values of Particulate Matter (PM10) levels in Bangalore city ($\mu\text{g}/\text{M}^3$)</td> <td>122.0</td> <td>118.0</td> <td>101.0</td> <td>91.0</td> <td>60.0</td> </tr> </tbody> </table> <p>To prepare action plans at Hubli-Dharwad, Davanagere and Kalaburgi cities, the Task Force Committee have been constituted under the Chairmanship of Deputy Commissioners on 30.11.2018, 3.10.2018 and 15.10. 2018 of respectively. Inventorization of air pollution sources and source apportionment study will be initiated at Hubli-Dharwad, Davanagere and Kalaburagi.</p>	Years	2014-15	2015-16	2016-17	2017-18	National Limits	Average values of Particulate Matter (PM10) levels in Bangalore city ($\mu\text{g}/\text{M}^3$)	122.0	118.0	101.0	91.0	60.0
Years	2014-15	2015-16	2016-17	2017-18	National Limits									
Average values of Particulate Matter (PM10) levels in Bangalore city ($\mu\text{g}/\text{M}^3$)	122.0	118.0	101.0	91.0	60.0									
	22.11.2018	1st Task Force Committee meeting was held under the Chairmanship of Deputy Commissioners of Dharwad on 22.11.2018, Davanagere on 6.12.2018, and Kalaburagi on 22.10.2018.												
3	03-12-2018	1st Air Quality Monitoring Committee (AQMC) meeting was held on 03.12.2018 under the Chairmanship of Principle Secretary to Government, Ecology and Environment.												
4	22.12.2018	The Action plans of four non-attainment cities submitted to CPCB vide letter No. 4923, dated: 22.12.2018 for the approval.												
5	17.1.2019	24th Task Force Committee meeting was held under the Chairmanship of Chief Secretary GoK and 44 actions points were reviewed and approved. The same action points are placed before the 2nd AQMC meeting.												
5	7.2.2019	The CPCB has convened a video conference on 31.1.2019 under the Chairmanship of Member Secretary of CPCB. During the discussion, it was stated that as per the NGT directions each State Boards has to design Robust ambient air quality monitoring network. As per the discussion a proposal on ambient air quality monitoring network has been sent to CPCB on 07.02.2019.												
		After verification of submitted action plans, the CPCB has issued the direction under 31(A) of Air Act 1981 to the Principle Secretary to Government, Ecology and Environment. In the direction stated that as per the order of NGT, three members Committee has examine the action plan on 24, 25th January-2019 and as per the recommendations of the Committee, CPCB has not approved the city action plans for Bengaluru, Hubli-Dharwad, Davanagere and Kalaburagi and stated to submit the												



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[Signature]

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Sl No	Date	Action Taken
		revise city action plans based on the recommendations of three members Committee.
7	15.3.2019	Shortly the action points will be submitted to CPCB for approval. As per the NGT Order dated 15.3.2019 last date to submit the revised action points is 30.4.2019
8	8.4.2019	2nd Task Force Committee meetings were held Hubli-Dharwad, Davanagere and Kalaburagi under the Chairmanship of Deputy Commissioners on 25.2.2019, 25.3.2019 and 3.4.2019 respectively and the proceedings were submitted to the Board. 2nd Air Quality Monitoring Committee (AQMC) Meeting was held on 8.4.2019. The Committee reviewed the action points prepared for 4 non-attainment Cities (Bangalore, Hubli-Dharwad, Davanagere and Kalaburagi) based on CPCB directions and prepared the revised action points for all 4 non-attainment cities.

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As Provided by KSPCB




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 Directorate of Municipal Administration
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Compliance to Para 20(e) of NGT O.A 606/2018 order dated 16.03.2019: Status of Action Plan with regard to identification of polluted industrial clusters in O.A.No.1038/2018, news item published in "The Asian Age" Authored by Sanjay Kaw Titled "CPCB to rank industrial units on pollution levels" dated 13.12.2018.

The Ministry of Environment & Forests had imposed a moratorium on consideration of projects for environmental clearance to be located in critically polluted areas / industrial clusters identified by Central Pollution Control Board. The industrial clusters / areas having aggregated CEPI scores of 70 and above were considered as critically polluted clusters/ areas. Accordingly, in the state of Karnataka the following two industrial clusters were declared as critically polluted area vide MoEF office Memorandum No. J-11013/5/2010-1A.II (i) dated 13.01.2010:

1. **Bhadravathi**, Shimoga with CEPI score of 72.33 and
2. **Baikampady Industrial Cluster**, Mangalore with CEPI Score of 73.68

In December 2010, the action plans of the above said industrial clusters were prepared by the KSPCB.

The industrial clusters / areas having aggregated CEPI scores of between 60 to 70 were considered as severely polluted clusters/ areas. Accordingly three industrial clusters were declared as severely polluted area:

3. **Peenya Industrial Area**, Bangalore with CEPI Score of 65.11
4. **Kolhar Industrial Area, Bidar** with CEPI Score of 67.64
5. **Raichur Industrial area** with CEPI Score of 68.07

During the period of moratorium, to bring down the prevailing pollution loads, time bound action plans was prepared by the KSPCB / CPCB for improving the environmental quality in the industrial clusters/ areas. Also Local Area Committee for verification of implementation of Action plans for Bhadravati and Baikampady is constituted by KSPCB, where CPCB representative is a member of the committee. In addition to above areas, **Jigani - Bommasandra** industrial area, Bangalore also added in the polluted area for restoring the environmental quality.

The implementation of the action plans for **Bhadravati and Baikampady** was monitored through review by Local Area Monitoring Committee. The Bhadravati and Baikampady committees met 4 and 8 times respectively so far and reviewed the implementation of the action plan. The validity of the two monitoring Committee is up to 31.3.2019 and the same needs to be extended. The CEPI score over the year for Critically Polluted Area are as follows:

Industrial Cluster / Area	Trend of CEPI Score			Current status of moratorium
	2009	2011	2013	
Bhadravathi	72.33	62.64	45.27	Moratorium lifted vide O.M. dated 23.05.2011 by MoEF & CC
Mangalore	73.68	73.86	67.62	

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Executive Engineer
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For remaining three (3) severely polluted industrial areas, action plan was not prepared. As per directions of CPCB dated: 26.04.2016, KSPCB has taken action for carrying out Environmental Quality monitoring through laboratory accredited under NABL for pre-monsoon and post monsoon period and submitted the monitoring report to CPCB to enable for evaluation of CEPI scores of the Five (5 Nos) industrial areas (excluding Jigani-Bommasandra Industrial Area). Now, CPCB has evaluated the CEPI score for all the 100 industrial areas in the country and communicated the CEPI score to MoEF & CC for approval and notification.

Compliance to Hon'ble NGT order:

As per the Orders of the Hon'ble NGT, State Pollution Control Boards are required to prepared action plan with line Department to improve the Environment Quality parameters within 03 months and get them approved by Chief Secretary. While preparation of action plan, all the other aspects such as action plan for polluted river stretches, action plan for non-attainment cities are required to be incorporated wherever applicable.

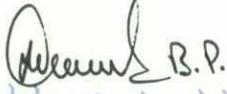
Accordingly, KSPCB has held three meetings with the concerned Regional Officers of the Board and with the guidance of CPCB, Regional Directorate, Bangalore. KSPCB has prepared action plans for each of the above-said 06 Polluted industrial areas based on the boundary of industrial area, buffer zone, industries operating within the area and the industry specific action plan to ensure compliance to consent conditions.

Principal Secretary, Department of Ecology & Environment has issued a corrigendum No DEE 88 EPC 2019 dated 19.3.2019 authorizing the existing monitoring committee constituted vide G.O. FEE 168 EPC 2014, Bangalore dt 25.11.2014 to oversee the implementation of the action plan as per the direction of Hon'ble NGT. On 11.4.2019, the CEPI oversee committee meeting was held to review the action plans prepared for the said 6 industrial clusters and approved. The approved action plans are sent to CPCB for submission to Hon'ble NGT. Subsequently, the implementation of the action plan shall be monitored through Local Area Monitoring Committees constituted by the Board for the respective areas.

All the action plans and the proceedings of the Local Area Committee Meetings are made available on the KSPCB website.

* * * * *

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**Compliance to Para 20(g) of NGT O.A 606/2018 order dated 16.03.2019:
“Total amount collected from erring industries on the basis of ‘Polluter Pay Principle’, ‘Precautionary Principle’ and details of utilization of funds collected”.**

Sl. No.	Case
1	As per W.P. No. 13029/1985 held at Hon'ble Supreme Court of India on 29.10.2018, M/s. Graphite India has deposited Rs. 50,000,00/- (Fifty Lakhs) as environmental compensation.
2	Hon'ble NGT has passed order on 28.01.2019 in O.A. 77/2016 (SZ), Padma Kodli Vs. Karnataka State Pollution Control Board wherein Hon'ble NGT directed to forfeit the Performance Guarantee Money of Rs. 50 Lakhs deposited by M/s Sai Vijay Pragathi Steel Udyog Pvt. Ltd. Haruvanahalli, Hospete and Bellary. Accordingly, the Board forfeited the Performance Guarantee Money deposited by the industry on 12/02/2019.
3	In the Application No.225/2014 filed by Manjunatha Dyeing and others , the Honble National Green Tribunal, Chennai disposed the application on 15/05.2015 with direction to the dyeing unit owners to deposit 15,000 each under polluter pays principle with the Secretary, Government of Karnataka. Ministry of Environment & Forest who shall keep the said amounts in a separate account to be used for setting up of the CETP as stated above. Accordingly dyeing unit owners paid the amount to the Secretary of Government and obtained the consent from the Board with a condition to the trade effluent handed over to the CETP.
4	Application No.261/2014 filed by Mohammed Kabir, Hon'ble Tribunal disposed the application and imposed a fine of rupees 5,00,000/- to each defaulting fish meal unit owners(Total 13 units). Further an additional amount of Rs.25,00,000/- (Rupees Twenty Five lakhs only) against the respondent No.24 Fish Meal and Fish Oil Manufactures Association for utter negligence and violation of standards in operating the CETP thereby leading of untreated effluents into the adjacent sea and causing pollution. All the above said amount shall be paid to the Environment Relief Fund established under section 24 of the National Green Tribunal Act, 2010.
5	Application No.222/2014 filed by M/s. Forward Foundation V/s Manthri Tech Zone: The Hon'ble NGT imposed a fine of Rs.117.35 crores to M/s. Manthri Tech Zone and 13.5 Crores to M/s. Core Mine Soft Ware Company. Against the NGT order the project proponent has filed a Civil appeal before the Hon'ble Supreme Court of India Vide No.5016/2016 the same was dismissed on 5.4.2019.

As provided by KSPCB

ME

OR

M. R. P.

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6	<p>In Application No.179/2017 filed by Venkatesh V/s Union of India : the Hon'ble NGT has directed the BBMP to comply with the directions and to deposit Rs 10.00 lakh as environmental compensation.</p> <p>Out of the amount of Rs. 10 Lakh imposed 25% of it shall be deposited with Central Pollution Control Board and remaining shall be deposited with the Pollution Control Board of Karnataka.”</p>
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The funds so collected are being utilized for the purpose as directed by the Hon'ble NGT.

The directions regarding environmental compensation to be collected from the erring industries as per the Hon'ble NGT order in OA No 593/2017 (W.P.) (Civil) No 375/2012, dated 19.02.2019 will be implemented.

* * * * *

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R.P.

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M

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Directorate of Municipal Administration
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List of GP's proposed to be developed as model GP's

SL No.	DISTRICT	TALUK	GP
1	Bagalkote	Bilagi	Yedahalli
2		Mudhol	Mantoor
3		Jamkhandi	Hirepadasalagi
4	Ballari	Bellari	Nelludi
5		Hadagali	Holalu
6		Hosapete	Kallahalli
7	Belagavi	Khanapur	Nandgadh
8			Devalatti
9		Gokak	Doopdala
10	Bengaluru (Rural)	Dodballapur	Bashettihalli
11		Dodballapur	Majarahosahalli
12		Devanhalli	Kannamangala
13	Bengaluru (Urban)	North	Rajanakunte
14		North	Bettahalasuru
15		Anekal	Shanthipura
16	Bidar	Aurad	Sundal
17		Basavakalyan	Sastapur
18		Bidar	Chambol
19	Chamarajanagar	Chamarajanagar	Santhemarahalli
20		Gundlupet	Hangala
21		Kollegal	Lokkanahalli
22	Chikkaballapura	Chintamani	Hirekattigenahalli
23		Gauribidnur	Hosur
24		Sidlaghatta	Nagamangala
25	Chikkamagaluru	Tarikere	Amrutapura
26		Mudigere	Kalasa
27		Narasimharajapura	B. Kanabur
28	Chithradurga	Hosaduga	Belaguru
29		Chithradurga	Medehalli
30		Molakalmuru	Rampura
31	Davanagere	Davanagere	Belavanur
32		Channagiri	Santhebennur
33		Honnali	Chiluru
34	Dharwad	Dharwad	Hebballi
35		Hubballi	Anchatageri
36		Kundahola	Koobinala
37	Dakshina Kannada	Beltangadi	Ujire
38		Puttur	Alankaru
39		Sulya	Aranthodu
40	Gadag	Rona	Abbigeri
41		Gadag	Lakkundi
42		Mundaragi	Dambala
43	Hassan	Belur	Hagare
44		Sakleshpura	Baage
45			Hanbalu

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Directorate of Municipal Administration
Bangalore.

46		Ranebennur	Kavalettu
47	Haveri		Tumminakatti
48		Savanur	Teveramellihalli
49		Afzalpur	Gobbur .B
50	Kalaburagi	Kalaburagi	Tajsultanpur
51		Jevargi	Nelogi
52		Madikeri	Benguru
53	Kodagu	Somvapet	Nanjarayapatna
54		Virajpet	Kutta
55		Kolar	Kurugal
56	Kolar	Bangarapet	Kethaganahalli
57		Mulbagal	Uthanur
58		Gangavathi	Shriramanagar
59	Koppal		Alavandi
60		Koppal	Munerabhada
61		Maddur	Gejjalagere
62	Mandya	K. R peta	Bukinkere
63		Srirangapattana	K.R Sagara
64		Mysore	Hosahundi
65	Mysuru	Nanjangud	Haradanahalli
66		Hunsur	Katttemalalavadi
67		Lingsugur	Gurunta
68	Raichur	Raichur	Talamari
69		Sindhur	R.H Camp
70		Channapatna	Kodamballi
71	Ramanagar	Kanakapura	Kodihalli
72		Magadi	Kooduru
73		Bhadravati	Holehonnuru
74	Shivamogga	Hosanagara	Ripponpete
75		Sorab	Anavatti
76		Tipaturu	Biligere
77	Tumakuru	Turuvekere	Mayasandra
78		Tumakuru	K.Palасandra
79		Kundapur	Vandse
80	Udupi	Karkala	Nitte
81		Udupi	Varamballi
82		Haliyal	Teragaon
83	Uttara Kannada		Mangalwada
84		Kumta	Nadamaskeri
85		Basavanabagevadi	Ukkali
86	Vijayapur		Kanamadi
87		Vijayapur	Thikota
88		Shorapur	Kodekal
89	Yadgir	Shahpur	Doharnalli
90		Yadgir	Saidapur
		Total	90



(Signature) R.D.

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(Signature)

(Signature)
Commissioner
Public Health, Water and Sanitation
2nd Floor, 'E' Block, KMC Complex
Cannery Bypass, K.G. Road, Bangalore

(Signature)
Executive Engineer
Directorate of Municipal Administration
Bangalore

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SWM Implementation Status in ULBs																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
S. No	Name of the District	No of Ulb's	Total NO of Wards	Waste generation in Tonnege	ULB's with 100% D-D collection	Wards with 100% D-D coollection	with 100% S/S	Wards with 100% S/S	No of ULB's with Processing facility	Qty of Tonnage MSW processed	No of ULB's with SLF	No of ULB's with landfill sites	Exte land(in acres)	ULB's with Basic infrastructure s	Qty of compost waste generated (TPD)	Amnt generated by sale of city compost (Rs in lakhs)	No of ULB's finilised SWM- DPRs(SBM)	No of DPR approved by State
Banglore Division																		
1	Bangalore Rural	5	123	113.7	4	100	0	52	2	19	2	2	20.44	2	2.5	4.13	5	5
2	Bangalore Urban	7	344	4104.5	5	322	2	73	3	1203	1	2	20	1	140	75.32	2	2
3	Chikkaballapura	6	158	103.5	6	158	0	74	6	24.5	6	6	54.27	6	4.15	0	6	6
4	Chitradurga	7	162	137.05	3	139	1	70	3	40	6	6	73.63	6	3.1	0.3	6	6
	Davanagere	6	154	232	6	154	0	9	2	32	1	5	67.42	5	3.3	2.73	4	0
	Kolar	6	166	212.91	1	103	0	18	3	8.6	3	5	35.17	4	3.3	0	6	6
	Ramanagara	5	135	129	5	135	0	23	5	14	1	4	62.64	4	1.25	0	4	4
	Shimoga	9	187	281.8	8	179	0	5	2	135	2	2	103.58	9	8.8	83.92	7	7
	Tumkur	10	235	229.5	8	217	1	53	5	90	3	10	131	10	12.3	1.87	7	7
	Total	61	1664	5543.96	46	1507	4	377	31	1566.1	25	42	568.15	47	178.6965753	168.27	47	43
Mysore Division																		
	Chamarajanagar	5	109	74.88	2	84	0	4	2	0.9	0	4	55	3	0	0	4	4
	Chikmagalur	9	148	109.6	8	136	0	44	4	40.92	2	7	61.36	7	4	0.36	7	7
3	Dakshin Kannada	10	253	402.78	7	234	2	100	9	302	3	8	110.88	8	30	6.04	10	9
4	Hassan	8	184	148.5	7	181	0	32	8	51	0	8	85.2	8	2	0	8	8
5	Kodagu	4	68	48.57	4	68	0	16	3	10.015	0	4	20.65	4	1.5	0.15	4	4
6	Mandya	9	186	125.32	3	133	0	8	7	20	1	7	57.3	5	2	0.15	7	7
7	Mysore	9	250	544.43	9	250	0	59	6	247	1	9	52.8	9	37.5	4.37	9	9
8	Udupi	5	120	108.6	2	115	1	52	5	36.11	2	5	83.76	3	1	1.83	5	5
	Total	59	1318	1562.68	42	1201	3	315	44	707.945	9	52	526.95	47	78	12.9	54	53
Kalburgi Division																		
1	Bellary	16	379	471.71	6	256	0	40	5	16.685	8	11	176.97	11	1.7	0.15	11	11
2	Bidar	7	172	178.1	6	149	0	12	6	15	1	6	78.5	4	5	0	6	6
3	Gulbarga	10	247	351	8	243	0	0	8	132.5	8	9	92.61	9	22.03	0	9	9
4	Koppal	9	200	129.5	2	141	0	0	4	20.5	2	5	54.35	4	0	0	4	4
5	Raichur	13	260	187.28	12	260	0	7	2	6	0	6	85.16	6	0	0	6	5
6	Yadgir	7	151	88.53	0	88	0	11	0	0	0	4	44.04	4	0	0	4	4
	Total	62	1412	1406.12	34	1137	0	70	25	190.685	19	41	531.63	38	28.73013699	0.15	40	39
Belguam Division																		
1	Bagalkot	15	362	231	7	281	0	49	10	58	12	12	124.02	12	27.1	0.2	12	2
2	Belgaum	33	734	535	11	445	0	83	12	265	3	16	192.4	16	28	64.74	16	16
3	Bijapur	13	265	204	0	213	0	2	5	37.5	0	6	72	5	7	2.26	6	6
4	Gadag	9	204	145	8	202	0	28	8	34	5	9	81	9	4	0.47	9	9
5	Haveri	9	223	175	5	192	0	22	7	30.5	2	8	85.35	8	0.084	0.43	8	8
6	Dharwad	6	156	438.35	6	156	0	0	6	12	6	6	91	6	12.08	1.42	6	6
7	Uttara Kannada	12	271	153	12	271	12	271	12	140	10	11	107	10	6.8	4.7	12	11
	Total	97	2215	1881.35	49	1760	12	455	60	577	38	68	752.77	66	85.064	74.22	69	58
	Grand Total	279	6609	10394.1	171	5605	19	1217	160	3041.73	91	203	2379.5	198	370.4907123	255.54	210	193



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Handwritten signature

Executive Engineer
Directorate of Municipal Administration
Bangalore.

SWM Implementation Status in ULBs

1	2	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
S. No	Name of the District	No of ULB's invited tender for development of infrastructure as per SWM-DPR	No of ULB's have invited tender for development of DWCC	No of ULB's have decentralised wet waste	No of DWCC developed in city	Quantity of recyclable materials sold (TPD)	STF Constituted (Yes/No)	No of STF meeting held so far	No of ULB's who have banned burning waste through notification	No of ULB's levied SWM user charges through notified.	No of ULB's who have carried-out waste pickers enumeration	No of ULB's who have issued identity card	No of ULB's who have Carried out IEC activities	No of ULB's Who have made provision for SWM O&M	No of ULB's In the River Street	No of ULB's prohibited the dumping of SWM near river Stretch	
Banglore Division		City sanitation	Processing & ...														
1	Bangalore Rural	1	2	3	0	2.2	0.8	Yes	1	2	5	4	4	4	5	1	1
2	Bangalore Urban	6	1	1	1	167	215.16	No	NA	1	7	5	5	7	7	0	0
3	Chikkaballapura	6	6	6	0	5	1.75	No	NA	6	6	6	6	6	6	2	2
4	Chitradurga	6	6	6	0	1	0	No	NA	1	6	7	5	7	7	1	1
5	Davanagere	0	0	0	1	19	4	Yes	1	4	6	6	6	6	6	2	2
6	Kolar	3	2	3	0	2	0	NO	NA	3	2	6	3	6	4	0	0
7	Ramanagara	5	2	5	4	6	0.55	Yes	2	5	5	5	2	5	5	2	2
8	Shimoga	4	6	6	1	5	0.6	Yes	1	9	9	9	3	9	9	4	4
9	Tumkur	2	7	3	2	7	2.77	No	NA	10	1	10	10	10	10	0	0
Total		33	32	33	9	214	225.63	4	5	41	47	58	44	60	59	12	12
Mysore Division																	
1	Chamarajanagar	3	3	2	0	1	0	Yes	0	5	5	5	5	5	5	1	1
2	Chikmagalur	8	5	8	0	6	0	Yes	0	8	8	8	2	8	8	1	1
3	Dakshin Kannada	9	7	3	7	7	4.5	Yes	1	10	10	10	3	10	10	0	0
4	Hassan	3	3	8	2	2	0	Yes	0	8	8	8	8	8	8	1	1
5	Kodagu	3	0	3	2	4	0	NO	NA	4	4	4	0	4	3	1	1
6	Mandya	0	1	1	3	2	0	Yes	0	0	7	7	7	7	7	2	2
7	Mysore	9	2	2	9	46	65.7	Yes	1	9	9	9	9	9	9	4	4
8	Udupi	5	2	2	2	7	0.75	No	NA	5	5	5	5	5	5	2	2
Total		40	23	29	25	75	70.95	6	2	49	56	56	39	56	55	12	12
Kalburgi Division																	
1	Bellary	0	9	9	0	3	6.6	No	NA	16	16	16	16	16	16	0	0
2	Bidar	0	0	0	1	6	0	Yes	2	6	6	6	6	6	7	0	0
3	Gulbarga	9	9	9	0	9	209	No	NA	9	9	9	9	9	9	2	2
4	Koppal	4	4	4	0	5	0	Yes	0	9	9	9	8	9	9	4	4
5	Raichur	0	0	5	0	3	0	Yes	1	0	6	6	1	12	6	0	0
6	Yadgir	4	4	4	4	1	0	Yes	1	6	4	4	4	6	4	2	2
Total		17	26	31	5	27	215.6	4	4	46	50	50	44	58	51	8	8
Belguam Division																	
1	Bagalkot	0	0	3	1	9	23	YES	2	15	8	12	12	12	15	2	2
2	Belgaum	16	16	9	0	10	3	YES	0	33	26	17	17	33	33	8	8
3	Bijapur	4	6	2	1	6	9.58	YES	0	13	13	3	3	13	13	1	1
4	Gadag	0	9	9	9	2	3	YES	1	9	9	9	6	9	9	0	0
5	Haveri	0	8	5	0	3	0	YES	1	8	9	6	0	9	8	0	0
6	Dharwad	0	6	5	0	5	0	YES	2	6	6	6	6	6	6	0	0
7	Uttara Kannada	14	11	11	1	14	22.38	YES	1	12	12	1	1	12	12	3	3
Total		37	57	44	12	49	60.96	7	7	96	83	54	45	94	96	14	14
Grand Total		127	138	137	51	365	573.14	21	18	232	236	218	172	268	261	46	46

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Executive Engineer
Directorate of Municipal Administration
Bangalore. Page 2

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Proceedings of Progress Review Meeting through Video Conference under the Chairmanship of Chief Secretary, Government of Karnataka, held on 13.02.2019 and 14.02.2019 at Room No.313, 3rd Floor, Vidhana Soudha, Bangalore.

***The attendance is annexed at annexure-1& 2.

1. The Director, DMA welcomed the Chair, Additional Chief Secretaries, Principal Secretary, Deputy Commissioners of districts and other officers.
2. All the Deputy Commissioners were reminded that the Principal Secretary, UDD had addressed a letter to all the DCs on 02.02.2019 highlighting the actions to be taken at district level to comply with Hon'ble NGT directions.
3. Further, stressing upon the immediate necessary actions to be taken by the DCs pertaining to the implementation of SWM Rules-2016 effectively in all the ULBs; the Director, DMA informed the steps to be prioritized and carried out.
4. It was also informed that proposals for administrative approvals for the DPRs of the remaining ULBs shall be submitted immediately to DMA by concerned DCs. Upon discussion about the administrative approvals and technical sanction for purchase of vehicles and machineries, it was directed by the Chair to submit proposal for delegates the powers to DCs for purchasing the required and necessary vehicles and machineries alongwith manpower on outsourcing basis required for the processing units in accordance with the approved DPR as well as the allocation in action plans of other schemes if, any for the same.
5. The Director, DMA informed that the technical sanction for civil works of all the DPRs were carried out at DMA office and the vehicles and machineries part will also be cleared at the earliest.
6. The Principal Secretary, UDD informed all the DCs that the directions in the earlier GO No. UDD 31 CSS 2018, dated: 17.03.2018, will be relaxed immediately and the powers will be delegated to DCs for purchasing the required and necessary vehicles and machineries alongwith manpower required on outsourcing basis for the processing unit as per the approved DPR as well as the allocation in action plans of other schemes. The DCs need to assess and analyse the requirement in each ULBs before approvals. The DMA will be the monitoring agency.
7. It was also informed to all the DCs that as per the SWM Rules-2016, Rule-12 all the DCs shall convene a meeting every month under their Chairmanship to review the implementation of SWM Rules-2016. It was informed that the Hon'ble NGT is continuously monitoring the same and has issued an order No.606/2018, dated:16.01.2019 in which it has directed all the States/UTs to comply with all the SWM Rules-2016. In this regard, NGT has asked to submit the compliance in three numbers of annexures through Chief Secretaries of all States/UTs. In this connection, the Chief Secretary, Government of Karnataka is going to present the compliance before the Hon'ble NGT on 24.04.2019.

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8. The DCs were directed to convene a meeting, hereafter, every month under their Chairmanship to discuss and review the implementation of SWM Rules-2016 effectively. The proceedings of the meetings shall be submitted to DMA,UDD. It was also informed that the annexures emailed to all the DCs alongwith DO Letter No. UDD 36 CSS 2019, dated:02.02.2019, duly filled, signed and sealed shall be submitted to DMA by 17.02.2019.

9. The DCs were also directed to form/constitute immediately a "Special Task Force" at District Level as per the Para No.35 Hon'ble NGT Order No.606/2018, dated:16.01.2019 as per the following composition and report the same to DMA,UDD and CS office.

Sl. No.	Name/Designation of Officer	Remarks
1	Member-1(Nominated by Deputy Commissioner)	As per the NGT order 606/2018, dated:16.01.2019
2	Member-2(Nominated by Commissioner of Police/Superintendent of Police)	As per the NGT order 606/2018, dated:16.01.2019
4	Member-3 (Nominated by Regional Officer, Karnataka State Pollution Control Board)	As per the NGT order 606/2018, dated:16.01.2019
5	Member-4 (Nominated by Chairman, District Legal Services Authority)	Upon approval of National Legal Services Authority (As per the NGT order 606/2018, dated:16.01.2019)

10. Finally, all the DCs were directed to consider the implementation of SWM Rules-2016 as one of the priority tasks and also comply with all directions within stipulated time given by Principal Secretary to Government, UDD in his DO Letter No. UDD 36 CSS 2019, dated: 02.02.2019.

The meeting ended with vote of thanks.

T.M. Vijay Bhaskar

(T.M. VIJAY BHASKAR)

Chief Secretary to Government
Government of Karnataka
Bangalore

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Bangalore.



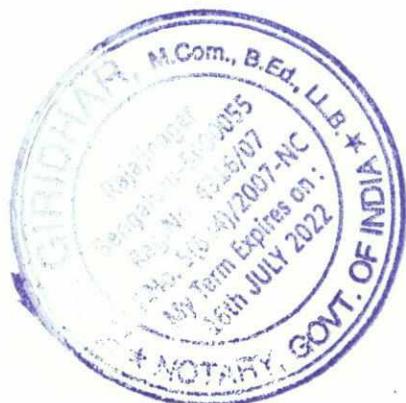
List of attendees is as follows.

Sl.No.	13.02.2019	14.02.2019
1	Dr. Sandeep Dave, IAS ACS to Government, Forest, Environment and Ecology, GoK.	Sri. Mahendra Jain, IAS ACS to Government, Urban Development Department, GoK.
2	Sri.Rajkumar Khatri, IAS Principal Secretary to Government Labour Department, GoK.	Dr. Sandeep Dave, IAS ACS to Government, Forest, Environment and Ecology, GoK.
3	Sri. Anjum Parwez, IAS Principal Secretary to Government Urban Development Department, GoK.	Sri. B S Shekharappa, IAS Director, Directorate of Municipal Administration, GoK.
4	Sri. B S Shekharappa, IAS Director, Directorate of Municipal Administration, GoK.	Dr. Ram Manohar Prasath, IAS Deputy Commissioner, Ballari District.
5	Sri. Randeep D, IAS Additional Commissioner, BBMP, Bangalore.	Sri. Somesh M Chikamath Executive Engineer(SWM Section), Directorate of Municipal Administration, GoK.
6	Sri. P Vishwanath Chief Engineer(SWM) BBMP, Bangalore.	
7	Sri. BasavarajShabade Superintendent Engineer BBMP, Bangalore.	
8	Sri. Somesh M Chikamath Executive Engineer(SWM Section), Directorate of Municipal Administration, GoK.	

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Proceedings of compliance review of NGT O.A. No. 606/2018 under the chairmanship of Honb'le Chief Secretary, GoK at Room No. 313, Vidhanasoudha on 02-04-2019

List of Members and Officers present in the Meeting is enclosed.

The ACS, UDD welcomed the member's present and explained the contents of the NGT order No 606/2018 passed by the Hon'ble NGT on 16.01.2019. It was brought to the notice to all the members that an Affidavit is to be filed by the Chief Secretary Govt. of Karnataka before NGT on 24.04.2019. After detailed discussions it was decided that Urban Development Department shall be the nodal Department to collect required information from RDPR, BBMP, FE&E, KSPCB etc. and to prepare an Affidavit. Further it was informed to all the concerned departments that they shall submit to compliance report in the form of an Affidavit within 3 days.

(Action: UDD, RDPR, BBMP, FE&E, KSPCB, DPAL)

Following are the directions issued to the concerned departments:

1. BBMP shall develop a software for monitoring of SWM vehicles. Remaining ULBs shall utilise the said facilities. A single centralized server shall be installed and to be maintained by BBMP.
2. Model SWM bye laws prepared by DMA shall be finalized within 2 weeks & shall be presented in the Screening committee before submitting for Election Commission clearance.
3. In compliance to the SWM Rules 2016, RDPR & UDD shall finalize comprehensive State SWM Policies & Strategies for respective departments within 3 months.
4. Necessary steps shall be taken by the UDD & RDPR to submit Annual report as per the rule 22 of SWM Rules 2016.
5. Since rural local bodies are in the initial stage of implementing SWM Rules 2016, SWM Bye laws shall be circulated & compliance shall be obtained.
6. Emphasis shall be given to procure land to rural local bodies for processing & disposal of solid waste.

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7. Pilot plants in Dakshina Kannada & Koppal district rural local bodies shall be replicated in other districts, where in in-situ wet waste processing and recycling of dry waste are being carried out.
8. KSPCB shall submit compliance to the NGT directions.
9. Chair directed to get the action plan from the Deputy Commissioner, Kalburgi for Kalburgi city with regard to "timeline to clear air in 102 cities" case.
10. Chair directed to KSPCB to verify directions passed in O.A. No. 173 for the applicability of the directions to the State.
11. As per the NGT directions, UDD shall notify the names of Mysuru, Mangaluru & Belgavi in the corporation category as Model cities and Raichur, Koppal & Kundapura towns in the CMC category and to publish the same in the website.
12. Chair directed RDPR to identify 3 panchayaths in each district as model panchayaths and act as per the NGT directions.
13. DMA shall ensure STF is constituted in all districts.
14. UDD, RDPR, KSPCB & FE&E departments shall publish all the compliance in their respective websites.
15. Existing criteria's fixed in declaring "UTTAM SWAACHH NAGAR" ranking of ULBs shall be continued.
16. As per NGT directions performance Audit shall be carried out by UDD & KSPCB.

After detailed deliberations it was resolved that to have a follow up review meeting on 12th April 2019 at 4.30 PM.

The meeting ended with vote of thanks to the Chair.

T.M. Vijay Bhaskar
(T.M. VIJAY BHASKAR)
Chief Secretary
Government of Karnataka

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**REVIEW MEETING HELD UNDER THE CHAIRMANSHIP OF THE
CHIEF SECRETARY., GOVT. OF KARNATAKA
REGARDING NGT 606/2018.**

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Place: Room No. 313, Vidhana Soudha

Date:-12-04-2019 at 4.30 PM

List of Members & Officers present in the meeting is enclosed.

The ACS, UDD welcomed the members & explained the content of the draft affidavit prepared by UDD with respect to OA 606 of 2018 as per the direction of meeting held on 02.04.2019. In addition, Member Secretary, KSPCB presented the action taken report with respect to para b to para g of NGT directions pertaining to order dated 15-3-2019 with respect OA 606 of 2018. After detailed deliberations, following decisions were arrived upon to submit the final draft by 15.04.2019.

(Action: UDD, RDPR, BBMP, FE & E, KSPCB)

1. Directions were issued to remove the plastic flexes in the BBMP area.
2. All the ULBs shall be directed to record the quantum of mixed waste processed, compost produced & sold at the various processing sites of Karnataka.
3. Whenever the concerned department submits compliance report towards implementation of the rules, it should be quantifiable (measurable). In the affidavits all the concerned departments shall provide implementation status in the form of numerical values which can be compared against the future developments.
4. The RDFs generated at various ULBs, which are being transferred to various cement industries shall be quantified. Also the total number of cement industries involved in transferring the RDF to their facilities on their own funds shall be listed.
5. At present 232 ULBs have banned burning of solid waste through notification. UDD shall take necessary action to ban open burning in rest of the ULBs. Also information regarding booking of cases against defaulters of SWM Rules 2016 shall be listed and provided by BBMP & UDD.
6. UDD & BBMP wherever required shall prepare an action plan for avoiding the mixing of sewage with the storm water drains & letting the same in to Nallas/rivers without treatment, so as to avoid polluting the river stretches.
7. The major achievements/ success stories in the Biomedical Waste Management, Solid Waste Management in BBMP, status of compliance/ major achievements from other departments viz., KSPCB, RDPR shall be included in the Affidavit.
8. The percentage of achievement in the each components (D2D Collection, Source Segregation, Transportation, Processing & Disposal) of the Solid Waste Management need to be highlighted in the affidavit.
9. KSPCB shall update the complying /non complying status of STPs/CETPs/UGDs of the various ULBs & Municipalities in the format of CPCB.
10. Directed UDD to take all possible efforts to publish the SWM Bye Law before 24.04.2016.

The meeting ended with vote of thanks to the Chair.



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*(Signature)**(Signature)*

(T.M.Vijay Bhaskar)

Chief Secretary

Government of Karnataka

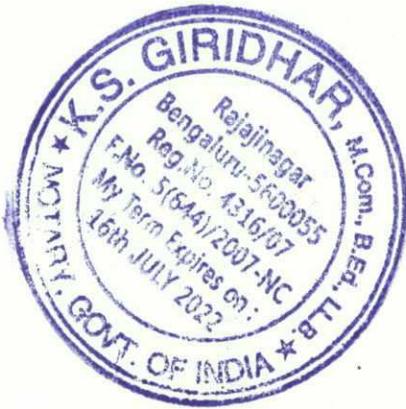
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Sl No.	Initiative	ULB Name	Page No.
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2	Garden activity in SWM Site for the purpose of creation of Good Environment	Saundatti TMC	6 – 8
3	Model Street Model People	Bagalkote CMC	9 – 11
4	Reuse of Cooked Oil to manufacture Bio Deiseal	Bagalkote CMC	12
5	Solid Waste Management model of Mangaluru city	Mangaluru CC	13 – 15
6	High-tech Community Toilet	Gadag-Betageri CMC	16 – 18
7	Fecal Sludge Treatment Plant	Devanahalli TMC	19 – 22
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1. Technological intervention to improve efficiency and effectiveness of Solid Waste Management services to the citizens of Kalaburagi Mahanagara Palike By Kalaburagi CC

DESCRIPTION OF THE INITIATIVE:

a) Swacha Kalaburgi Mission WhatsApp Group:

Regarding the Public Grievance Redressal on Garbage disposal to gather the complaints, Corporation has set up Channels like Control Room to collect and register complaints on JANAHIITA (suo moto), Complaints registered by people on JANAHIITA directly and Complaints received on WhatsApp Number maintained by COMMISSIONER himself. All these complaints are shared on our internal SWACHA KALABURGI MISSION WhatsApp group where all Sanitary Inspectors, Environment Engineers, Contractors, Mayor, Commissioner are members. Compliance of these complaints is tracked through the pictures posted BEFORE and AFTER by the ground level staff. Non Compliance would attract PENALTY as per the agreement.

b) AADHAR based bio metric attendance system:

35 TABs with protective metal cover have been purchased and NIC developed software *BAS Android App version 3.1* has been installed on all these machines/Gadgets. This SOFTWARE has features like Registration, Validation of credentials and Data Storage. In the 1st stage, All the Pourakarmikas and Corporation staff have been enrolled/registered in this Application through their AADHAR Number and other details. This machine/ gadget is portable and can be carried and operated from anywhere. Every day morning between 6am and 6.30am all the Health Inspectors take the gadget to a regular designated location and captures the attendance of all the PKs working in his/her jurisdiction along with his attendance(Biometric). Before leaving (1pm to 2pm) again the biometric attendance will be captured. This has really brought drastic change in the PKs turn out as the wages are directly linked to attendance.

c) GPS based Vehicle Tracking System along with Public Addressing(Anouncement) System

:

All the vehicles are tracked through *Fleet* Software developed by *Map My India*. This is a GPS based app that tracks the vehicles and indicates the *Longitude* and *Latitude*. The GPS gadgets have been funded by HKRDB. The software generates E-Log Book and same will be sent to our mail IDs on daily basis. The report consists of Date, time, Vehicle Numbers, Speed of the vehicles, distance travelled, travel route(locations). This has brought considerable reduction in misuse of vehicles and diesel consumption. It also ensured that the garbage is disposed at LANDFILL Site only.

THE BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE

By implementing Aadhar based Biometric attendance System Kalaburagi Mahanagara Palike has succeeded to a large extent on the below aspects.

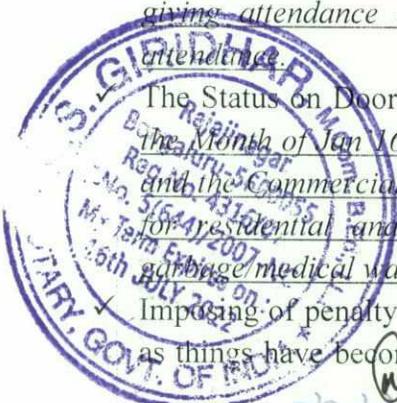
- ✓ Exact number of Pura Karmikas present for the work/Number of hours they are working is tracked on daily basis. A proper deployment of labour is going on regularly thereby improving the sanitation status in the city. *Before this initiative 30-35% labour used to go back homes after giving attendance and some of them wouldn't even turn up for work yet get the proxy attendance.*

The Status on Door to Door Waste Collection (Residential and Commercial) has improved. *In the Month of Jan 16 we have started Door to Door Waste Collection from all residential areas and the Commercial Shop to Shop waste collection started in Aug'16. The efficiencies are 90% for residential and 75% for commercial. The penalties collected for illegal dumping of garbage/medical waste by the citizens/shop owners is above 15 Lakhs for past 10months.*

Imposing of penalty on Non Performing Contractors has become easy for the ground level staff as things have become very transparent. Even Contractors are also present in WhatsApp group

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and can't have any excuse for noncompliance on Citizen's complaints. The average penalty imposed for duration Oct'15 - Feb'16 was 20 lakhs per month (Total Monthly bill is around 1.00 crore). This was a huge punishment for non performing Contractors and they had to mend their ways to Supply full strength labour and machinery to avoid heavy penalties.

By implementing GPS based vehicle tracking system Kalaburagi Mahanagara Palike has succeeded to a large extent on the below aspects.

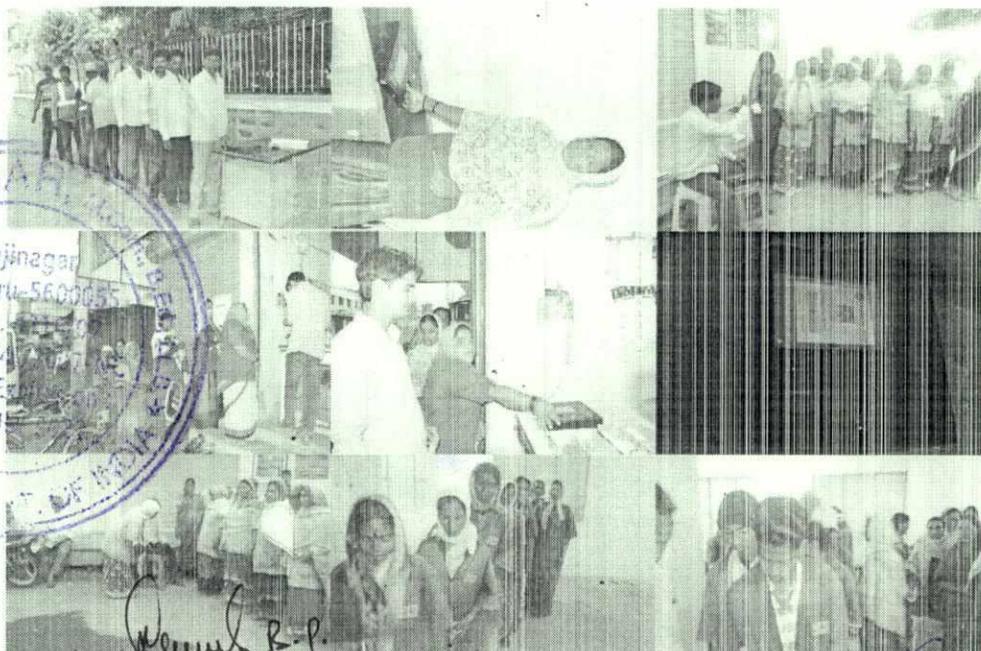
- ❖ The Quantity of Waste Collected and Quantity Disposed at the Landfill Site is easily tracked. Before this initiative, there used to be many illegal dumping points and some of them were seen as Mini Landfill sites. Only 160 tonnes out of 243 tonnes waste generated used to go to the Landfill Site. After this initiative out of 243tonnes of garbage generated 220 tonnes is reaching the landfill site on the same day and remaining waste would go as reusable waste (Segregated during door to door collection).
- ❖ Number of vehicles deployed, vehicles movement and Fuel Usage – The daily report contains the Vehicle Number, Departure, Arrival, Max Speed, Avg Speed, Stop Time, No Of Trips and Distance Travelled etc. Using Mileage of each vehicle we are tracking the Fuel Bills if they are put up as per actual usage. A sample of Daily Report -

KA32454	9200384923-Compactor	08-11-2016 08:31:47 - 62 km/h	0:21:18 + 70.7 km	2:17:14	
Departure	Arrival	Top speed	Average speed	Trips	Stop
15 08-11-2016 05:29:48 • Tank Bund Road, Gulbarga, Near Science Park (86 m), Karnataka	08-11-2016 12:08:20 • Tank Bund Road, Gulbarga, Near Science Park (102 m), Karnataka	08:31 + 62 km/h	23 km/h	0:21:18 + 76.7 km	2:17:14
Departure	Arrival	Top speed	Average speed	Drives	Stop
08-11-2016 05:29:48 • Tank Bund Road, Gulbarga, Near Science Park (86 m), Karnataka	08-11-2016 06:31:14 • Indian Oil Petrol Pump, Tank Bund Road, Gulbarga, Karnataka	06:30 + 35 km/h	27 km/h	0:01:26 + 0.7 km	0:07:11
08-11-2016 06:38:25 • Indian Oil Petrol Pump, Tank Bund Road, Gulbarga, Karnataka	08-11-2016 06:45:40 • Mijori Gunj Road, Gulbarga, Near Lohandwala Traders (3 m), Karnataka	06:44 + 43 km/h	29 km/h	0:07:15 + 3.6 km	0:08:43
08-11-2016 06:54:22 • Mijori Gunj Road, Gulbarga, Near Lohandwala Traders (3 m), Karnataka	08-11-2016 06:56:37 • Darga Road, Gulbarga, Near Aiff Restaurant (23 m), Karnataka	06:55 + 27 km/h	16 km/h	0:02:15 + 0.6 km	0:14:06
08-11-2016 07:11:13 • Darga Road, Gulbarga, Near Aiff Restaurant (23 m), Karnataka	08-11-2016 07:14:39 • Darga Road, Gulbarga, Near Aajya Silk House (10 m), Karnataka	07:14 + 15 km/h	5 km/h	0:03:26 + 0.5 km	0:07:58
08-11-2016 07:22:07 • Darga Road, Gulbarga, Near Aajya Silk House (10 m), Karnataka	08-11-2016 08:08:32 • Mandori, Gulbarga District, Karnataka	07:50 + 55 km/h	24 km/h	0:45:55 + 16.8 km	0:03:02
08-11-2016 08:11:54 • Jidnoor, Gulbarga District, Karnataka	08-11-2016 08:42:21 • SB College Road, Gulbarga, Near Corporation Bank (128 m), Karnataka	08:31 + 62 km/h	27 km/h	0:30:47 + 14.3 km	0:09:44
08-11-2016 08:52:05 • SB College Road, Gulbarga, Near Corporation Bank (128 m), Karnataka	08-11-2016 08:59:36 • Shaha Bazar Road, Gulbarga, Near PK General Store (29 m), Karnataka	08:52 + 33 km/h	13 km/h	0:07:31 + 1.7 km	0:09:15
08-11-2016 09:08:51 • Shaha Bazar Road, Gulbarga, Near PK General Store (29 m), Karnataka	08-11-2016 09:14:16 • Gulbarga, Near Bhavani Hair Salon (11 m), Karnataka	09:11 + 33 km/h	14 km/h	0:05:25 + 1.3 km	0:10:40
08-11-2016 09:55:02 • Gulbarga, Near Bhavani Hair Salon (11 m), Karnataka	08-11-2016 09:29:47 • Shaha Bazar Road, Gulbarga, Near Mahalaxmi Temple (42 m), Karnataka	09:07 + 30 km/h	14 km/h	0:04:45 + 1.2 km	0:10:16
08-11-2016 09:40:03 • Shaha Bazar Road, Gulbarga, Near Mahalaxmi Temple (42 m), Karnataka	08-11-2016 09:45:15 • SB Temple Road, Gulbarga, Near Mahalaxmi Auto Workshop (51 m), Karnataka	09:43 + 36 km/h	15 km/h	0:05:12 + 1.4 km	0:26:27
08-11-2016 10:13:42 • SB Temple Road, Gulbarga, Near Mahalaxmi Auto Workshop (51 m), Karnataka	08-11-2016 10:16:07 • Indian Oil Petrol Pump, Tank Bund Road, Gulbarga, Karnataka	10:16 + 30 km/h	15 km/h	0:02:25 + 0.6 km	0:06:11
08-11-2016 10:21:21 • Indian Oil Petrol Pump, Tank Bund Road, Gulbarga, Karnataka	08-11-2016 11:02:49 • Mandori, Gulbarga District, Karnataka	10:44 + 55 km/h	25 km/h	0:41:28 + 17.3 km	0:14:10
08-11-2016 11:17:01 • Jidnoor, Gulbarga District, Karnataka	08-11-2016 11:47:20 • MSK Mill Road, Gulbarga, Near Canara Bank ATM (15 m), Karnataka	11:34 + 61 km/h	26 km/h	0:30:19 + 14.2 km	0:03:04
08-11-2016 11:50:31 • MSK Mill Road, Gulbarga	08-11-2016 11:59:22 • Court Road, Gulbarga	11:57 + 36 km/h	7 km/h	0:00:58 + 1.1 km	0:04:47

By creating SWACHA KALABURGI MISSION whatsapp group Kalaburagi Mahanagara Palike has succeeded to a large extent on the below aspects.

- ❖ As Commissioner started communicating with general public through Whatsapp/SMS services, hundreds of citizens have started using the platform and share their issues and provide the feedback after the complaints are attended. Some of the Citizens participated in large number of cleaning drives conducted in the City.

01) Functioning of Aadhar Enabled Biometric Attendance System



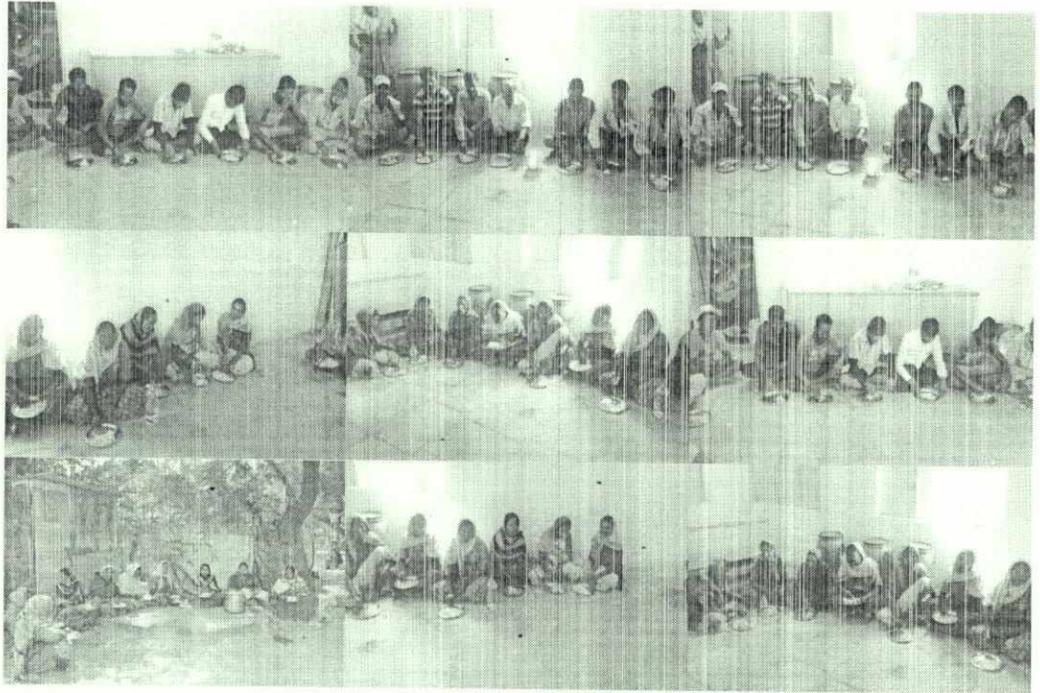
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Executive Engineer
Directorate of Municipal Administration
Bangalore.

PKs Breakfast



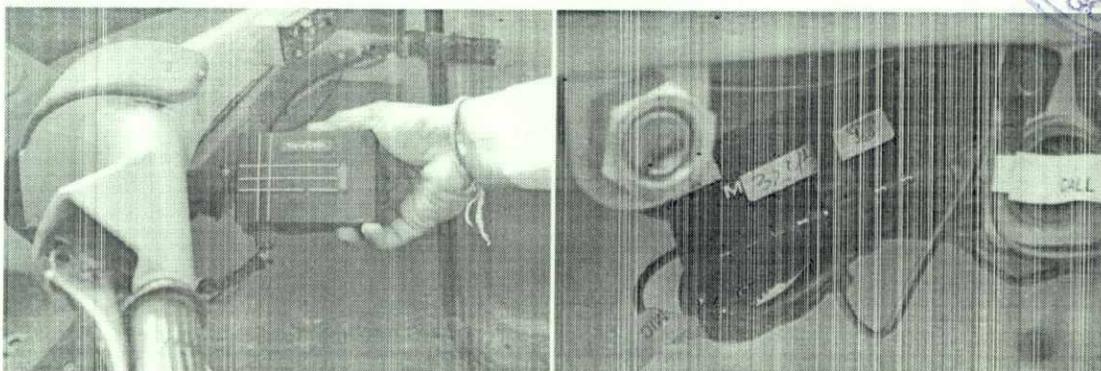
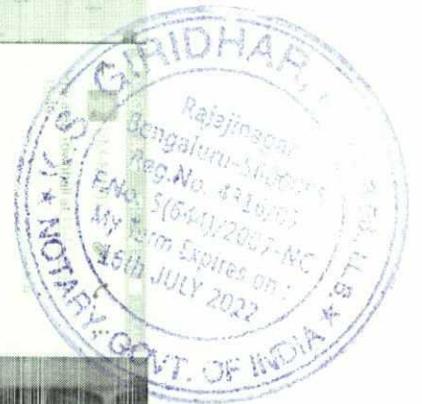
02) GPS Tracking of SWM Vehicles.



Manu R.P.
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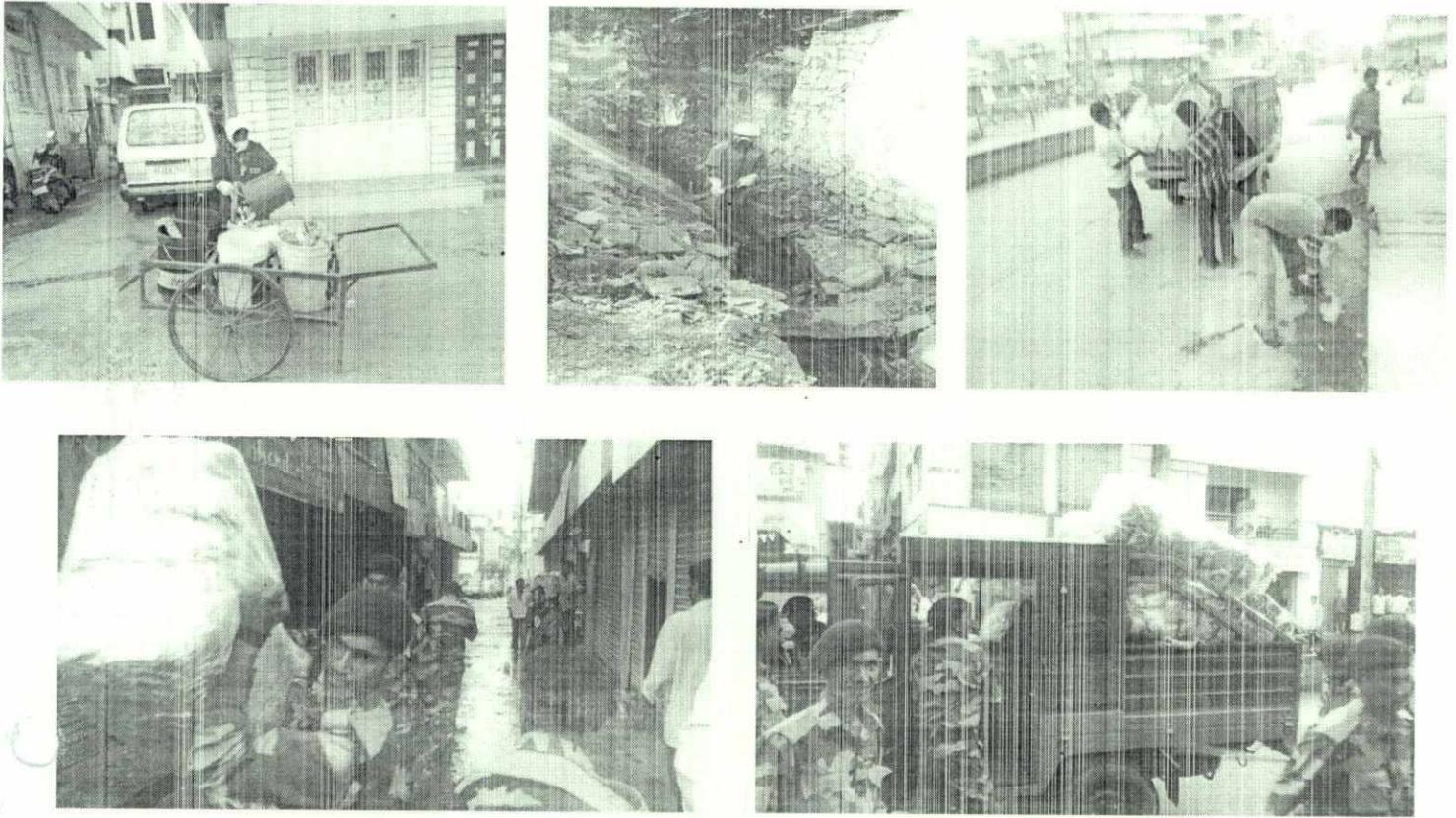
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 Executive Engineer
 Directorate of Municipal Administration
 Bangalore.

Vehicle No: 2020-4065
 Vehicle Type: Corporation
 Operating Agency: KMP, Urban
 Location: 12.9711422, 77.6011422
 Date: 11/07/2022 14:29
 Altitude: 884.4

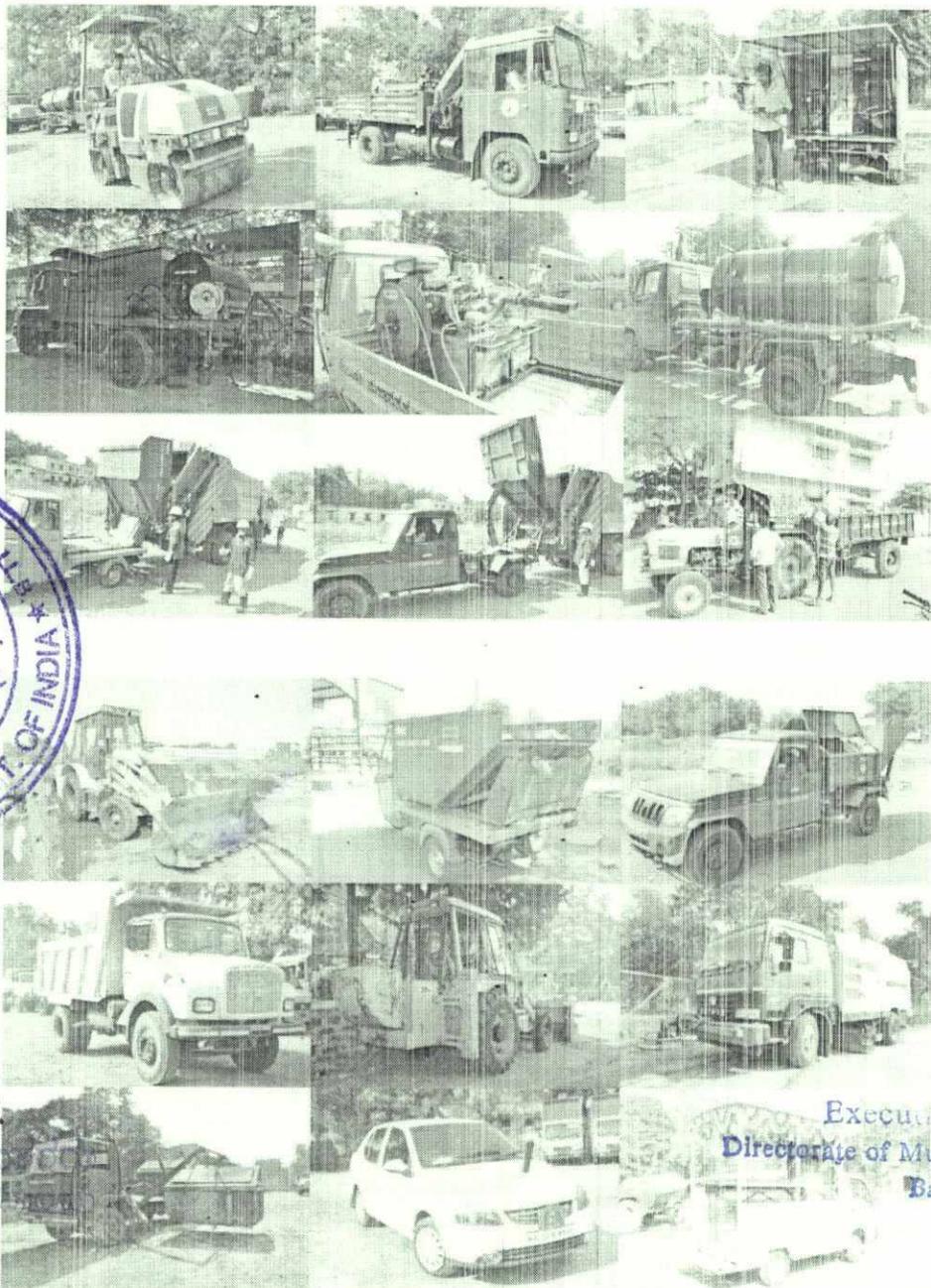


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03) Door to Door Collection(Residential & Commercial) and Soldiers of Corporation working on Regulatory activity(Plastic Seizure etc)



04) Different Types of Vehicles used by Corporation



NOTARY, M.Com., B.Ed., LL.B.
 Rajajinagar
 Bangalore-560055
 Reg.No. A-316/07
 F. O. 51044/2007-NIC
 My Term Expires on:
 16th JULY 2022
 GOVT. OF INDIA

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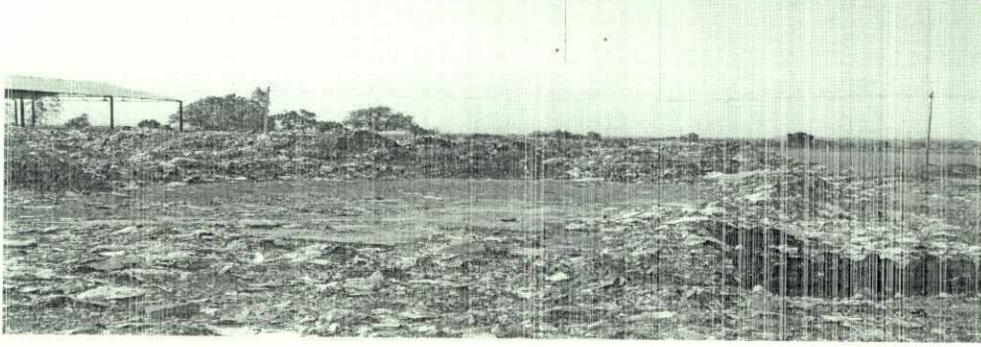
JMC

2. Garden activity in SWM Site for the purpose of creation of Good Environment By Saundatti TMC

Situation before the initiative

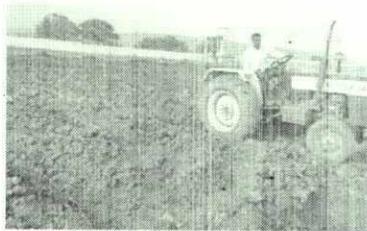
The waste dump site of municipality was a garbage filled area with foul smell and litter everywhere on the road between Dharwad and Saundatti. The waste was stored from last 10 years without any treatment or any processing. It looked like a garbage hill and was a nuisance, in the popular area that was in the way to the famous shrine and it affected all the devotees and pilgrims who passed by the dump site.

Solid waste dumped on vindro platform without segregation

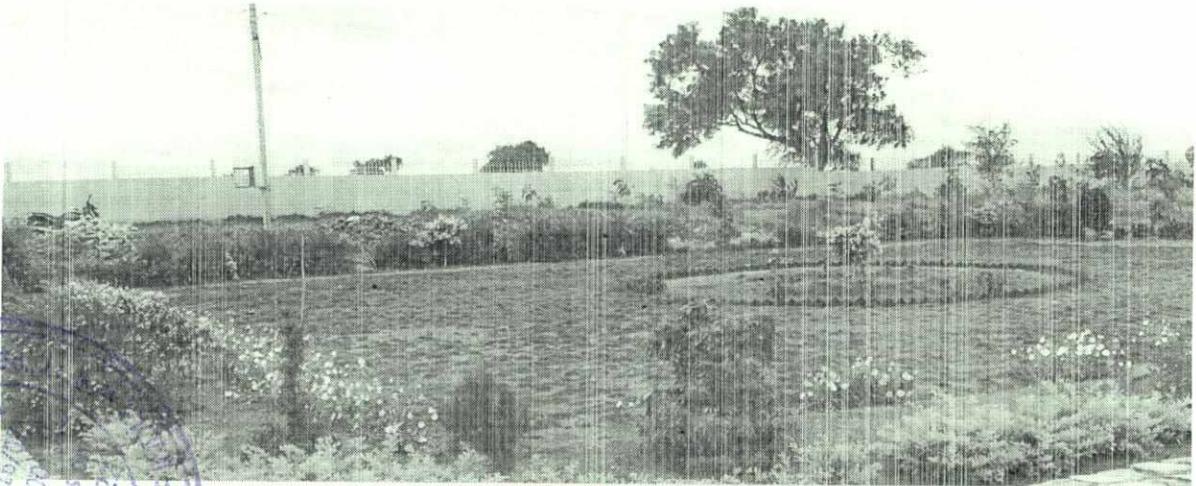


Description of the initiative / implementation strategy:

- a) Total area of land fill site of 8 Acre 27 gunta was identified and about one acre of land was earmarked for making garden and one acre for land for social forestry plantation. Blue prints for the garden was made and supervised by the Chief officer and with the help of just one tractor the land was ploughed and cleared for making the garden.



- b) Ornamental plants and lawn was provided by Horticulture Département and Forest Département.



- c) The stones found in this areas were removed and laid back for making the pathway in the garden.

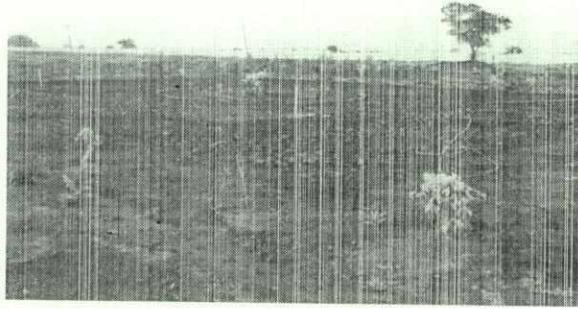
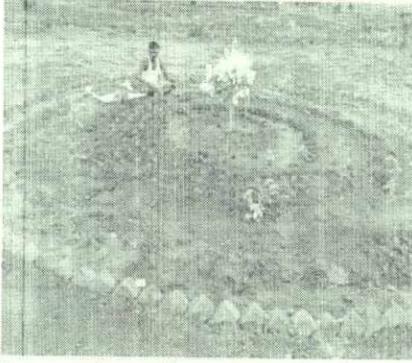


Aravind B.P.

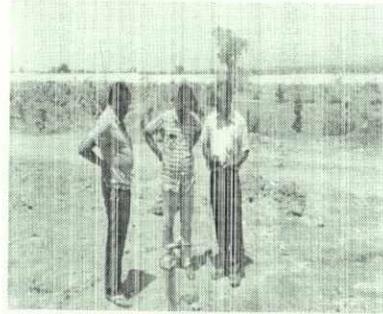
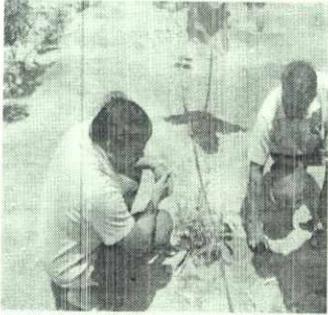
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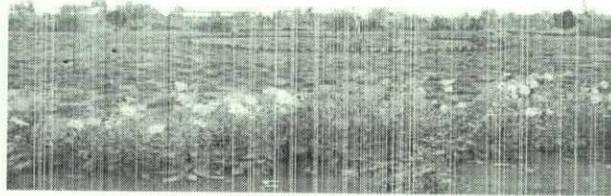
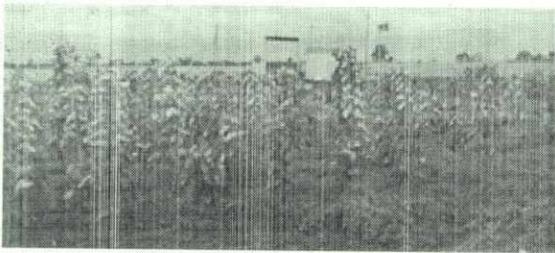
- d) Lawn laying and plantation was done by skilled Pour karmik's avoiding any extra labour for this activity.



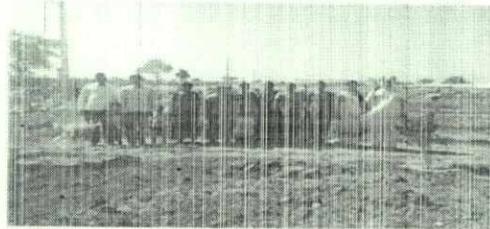
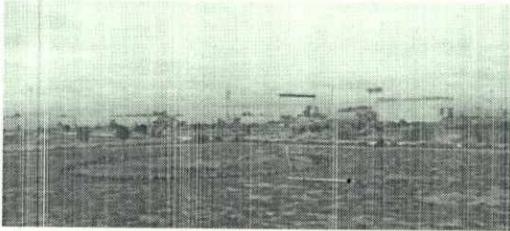
- e) Due to the saline water in the area plants were not growing hence simple water softner was installed and helped the plants to grow.



- f) The beautiful garden is the labour of the Pourakarmikas who maintain the garden .



- g) There is no foul smell and nuisance anymore in this area .The devotee's, public, and pilgrims rest in this park and freshen up on their way to the temple.



- h) Many species of birds have also started nesting here contributing to the ecology of the area now.



Activities taken up to implement the initiative

The garbage dump site was cleared and the same place was marked for converting into a garden . The debris and dry waste was collected and sorted . The area allocated for dumping of garbage was revived and marked for plantations. About 1 acre was planned for planting of various ornamental plants and flowering plants and 1 acre was earmarked for making a garden with tree species. Most of the materials used were leftover or surplus from previous implemented projects . Hence only about Rs. 73000 was incurred for making this garden .

The benefits derived from implementing the initiative

- a) Eco friendly garden for public usage

Renu B.P.
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- b) Solid waste management site converted to a resting public place.

Innovative characteristic about this initiative

Under the influence of the intense summer drought, and the area is now a beautiful park with green grass, it looks like a oasis in the desert and a true resting and relaxing place for the devotees who walk the path to reach the temple town. Converting the dump site to a garden proved a boon to this area.

M. B. P.

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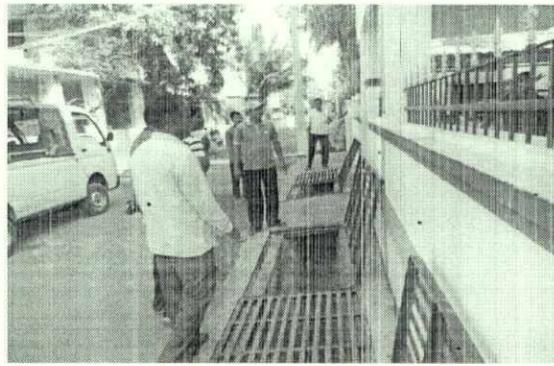


3. Model Street, Model People By Bagalkot CMC

Description of the initiative:

Initially the citizens did not cooperate with the municipal authorities for the implementation of UGD and rain water harvesting connections. However the commissioner came up with new ideas and encouraged citizens to agree and have the UGD and RWH connections.

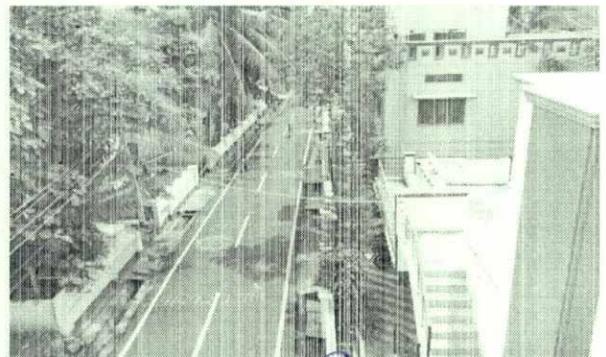
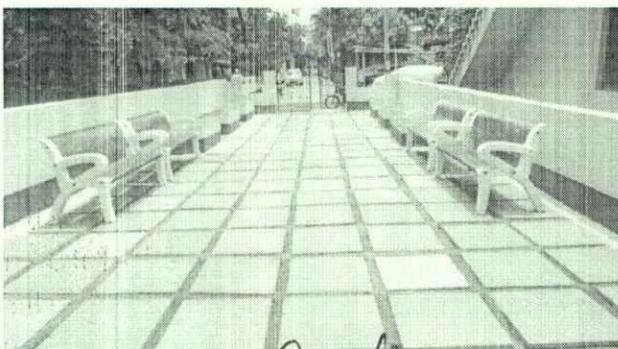
- Each household's sewage and drains were connected to the UGD. Many road side drains in several wards were cleaned and cleared. IEC was taken up for cleanliness drive across all the areas



Dust bins were distributed to all households for separate dry and wet waste collection



- To enhance the aesthetics of all the residential areas a uniform colour scheme was adopted . It was instructed that all the fences, household compounds and gates to be painted in the same colour.



Amul B.P.
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Bangalore.

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Activities taken up to implement the initiative

Various rules were imposed and follow up activities was taken for implementing the beautification of the city roads and areas. UGD connections were laid as per Govt. guidelines and notifications covering almost all areas. Steps were taken for removing unauthorized advertisements and all the public encroachments were removed. Steps were taken to eradicate pigs and stray dog menace. The roads were widened in several areas and tar was laid. The amount spent on road laying is as follows:

SL.No	Road Name	In Lakhs
01	Road NO-07(Apro 700MTRS Road)	19.00
02	Road NO-09(Apro 725MTRS Road)	20.00
03	Road NO-11(Apro 746MTRS Road)	20.50
04	Road NO-21(Apro 879MTRS Road)	22.00
05	Road No-22(Apro 810 MTRS Road)	21.00
06	Road No-19 (Apro 845 MTRS Road)	60.00
07	Bendegeeri&sulebavi Layout(Apro 700MTRS Road)	20.00

- In the old city area, the municipality developed these roads with following expenditure :

Sl. No	Road Name	In Lakhs
01	Near Allmaprabu Hospiatel Playour Road(85 MTRS)	6.95
02	Near Halagali Hospiatel Playour Road & drainage(150 MTRS)	8.00
03	Near Santhi Hospiatel Tar Road&Drinage(150MTRS)	15.00

The benefits derived from implementing the initiative

- Each household is connected to UGD thus preventing any diseases
- Each household has a composting unit for conversion of wet waste into manure and have rain water harvesting systems
- The roads have systematic vehicle parking lots
- Green space has been planted across the city adjoining all the streets
- Most of the roads now are uniformly laid and widened
- In two areas the citizens have come forward and constructed their own library and gym for public usage
- The pig and stray dog menace is completely checked
- A community living and sense of belonging has been brought in the mind set of citizens where they are contributing to the societal welfare

Paper clips of the initiative



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 Executive Engineer
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 Executive Engineer
 Directorate of Municipal Administration
 Bangalore.



4. Reuse of Cooked Oil to manufacture Bio Deiseal by Bagalokote CMC

Description of the initiative:

- All the Hotels and Restaurant Owners are first ignored CMC plan and they were not ready to give the used cooking oil (UCO).
- Initially CMC restricted the Hotel owners with the provisions of trade License and other municipal Rules and Regulations.
- CMC started giving Rs.10 /ltr to the all hotels, restaurant and street vendors for providing used cooked oil to CMC
- Every day 180-220ltr waste cooking oil to Bio diesel.
- CMC is sending a separate vehicle for collecting waste used cooking oil.

What were the activities taken up to implement the initiative?

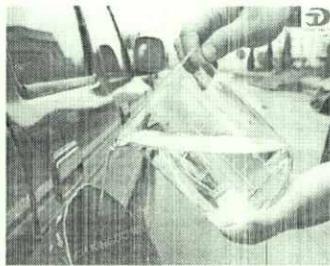
- Section 964 Municipal Trade Licence.
- Section 133-136 Un authorised Banners.
- Section 180-181 Un authorised Buildings.
- Section 2016 Solid waste Management and transportation.

Briefly describe the benefits derived from implementing the initiative.

- All the hotels, restaurants and street vendors are not disposing waste oil to drain & drain blockage is controlled.
- Street vendors buying of waste oil from big restaurant is completely controlled so that the public health is improved.
- Daily CMC is converting 180 litre of waste cooking oil into useful Bio diesel.
- Said Bio diesel is used as co-fuel by Social workers, NGO's and Public.
- Bio diesel is Eco friendly fuel, which in turn reduce global warming.
- Bio diesel improves the efficiency of vehicle.

Innovative characteristic about this initiative:

- Conversion of waste cooking oil into bio diesel.
- Conversion of bio diesel leads to by product which can be used as floor cleaner.



Rajesh P.
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Executive Engineer
Directorate of Municipal Administration
Bangalore.

5. MANGALURU CITY CORPORATION – SOLID WASTE MANAGEMENT

1. City Profile

Mangalore is an important city in Karnataka and is situated on the west coast. After integration the city is developing fast in all directions viz. in the field of education, industry and commerce.

Mangalore is located at 12°-52'N latitude and 74°-49'E longitude. The city is located in the confluence of Nethravathi and Gurupura rivers. It is bound in the east by the Western Ghats and in the west by the Arabian Sea. Three National Highways viz., NH-17 linking Panvel and Kanyakumari, NH-48 linking Mangalore and Bangalore, NH-13 linking Mangalore and Sholapur pass through the city. A domestic Airport is located at Bajpe, which is 15 km from city connecting it to Mumbai and Bangalore. Mangalore is also linked by rail to all major cities of India and is also having all weather harbors.

Mangalore is headquarters of Dakshina-Kannada District, largest urban coastal center of Karnataka and the fourth largest city in the State. The city is an administrative, commercial, educational, and industrial center. An all weather port is located in Mangalore and is the only major port of Karnataka. The topography of the city is from plain to undulating with four hilly regions natural valleys within the city. The ambient temperature varies minimum from 17°C to a maximum 37°C. There is a heavy rain fall of about 4000mm per annum of which about 90% received in the monsoon period. The relative humidity is generally very high reaching saturation levels during the summer period. The geology of the city is characterized by hard laterite in hilly tracts and sandy soil along seashore.

2. Sanitation Contact (Street Sweeping, Garbage Collection & Transportation)

Mangaluru City Corporation has outsourced the entire sanitation component to M/s Antony Waste Handling Cell Pvt. Ltd., for 7 years. Mangaluru is geographically divided into parts/zones – viz., North Zone & South Zone. The contractor has to carry out 100% Door to Door Collection, Manual & Mechanical Street sweeping, Weed Cutting, De-silting of storm water drains (<1.0m width), Footpaths and Divider Cleaning, Beach Cleaning, Maintaining sanitation of play grounds/ Govt. open spaces/ Govt. building and garbage transportation. A table on Infrastructure & Manpower Deployment is attached.

3. Processing & Land filling

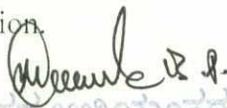
This has been prominently bifurcated into

- Compost Plant
- Vermi compost Plant
- Sanitary Landfill

Out of the MSW Collected and Transported from the Mangaluru City to the SWM Processing Site at Pachanady, the MSW is processed/ treated in the following ways.

The processing plant receives 300 TPD of Garbage every day, the garbage is being unloaded at the segregation platform. The waste which is suitable for composting is being segregated using Pre-processing machinery fitted with a trommel having a screener size of 125 mm. The Material below the size of 125mm is the process material which is taken for composting process. The material above 125mm goes separately and some portion is being recycled and the other is treated as inert. EM solution is sprayed on the MSW materials to enhance faster degradation reduction of odour.

The Inert thus collected are sent to landfill. The Process materials below 125mm are made as Windrows/ Heaps for composting. The Windrows thus formed are turned once in 7 days 6 times for the process of degradation. Temperature is checked and turning is provided for aeration along with moisture by watering for degradation. Here weight loss of about 35 % happens due to breaking up of materials degradation.


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Directorate of Municipal Administration
Bangalore.

Thus after 6 turnings the degraded material is fed into the Refinement machineries of Trommels having 40mm & 20mm sieves. The materials above the size of 40 mm are the inerts are sent to landfill. These can also be used as RDF in Boilers as a partial alternative for coal. The materials below 40 mm/ 20 mm are the semi finished materials which are stored for two weeks and given two turnings once a week for further degradation. The degraded semi finished material then are dried at the compost pad and the dried material are fed to the final Refinement machinery of trommel Possessing sieve of 4 mm size to meet the FCO Norms. The material obtained below 4mm are the final compost, it is the weighed and stored. The material obtained above 4 mm are the inert which are reused by spreading around the windrows in the compost pad to absorb the Leachate generated from the heaps/ windrows. These materials which absorb the Leachate are again re used to cover the Heaps and thus nutrients in the Leachate are reused to enrich the compost quality further.

The vegetable waste collected from Markets about 10 -15 TPD are used for vermi composting in the 69 vermi pits. Worms are introduced after decomposition is over by 35 to 40 days. Compost generated per 100 Tonnes of MSW is around 10 - 12%. The compost received at SWM Site is packed in 50 kg bags branded as "Harith Layer" and "Mangala City Compost" which for sale to Fertilizer companies apart from the Local Market.

4. Cost Benefit Analysis

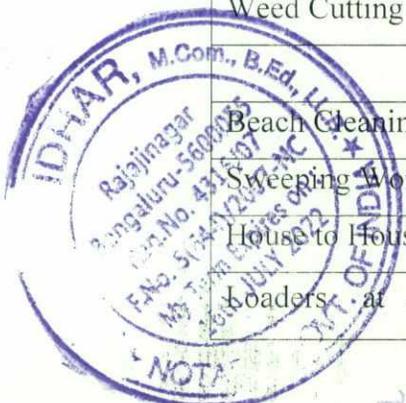
- The Rates quoted for by M/s Antony waste handling Cell Pvt Ltd, Mumbai is Rs 3,201.00/ Ton for North Zone and Rs 2051.00/ Ton for South Zone.
- For Operation & Maintenance for Processing & Disposal Facility the Rates quoted by M/s Unique Waste Management Pvt Ltd., New Delhi is Rs. 238.00/ Ton.
- Minimal of 40 – 50 % of the cost is expected to be recovered through Solid Waste Management Cess.

5. Salient features of the SWM project in MCC:

- Experimental project first of its kind to be developed in Karnataka.
- Project is on a long term contract basis (i.e., for 7 years).
- All the components of city sanitation are being outsourced to a single entity for each zone.
- Deployment of hydraulic operated vehicles & GPS system at the cost of contractors.

Table on Infrastructure & Manpower Deployment is here below:

Details	Activities	No's
Vehicles Deployment		
Primary Collection Vehicles deployed	House to House Collection Vehicles	84
	Bulk Waste Collection Vehicles	5
	Non-vegetarian Waste Collection Vehicles	8
Secondary Transportation Vehicles	Compactors 10 tons	15
	5 tons	2
	407	1
	Tippers (Street Sweeping)	10
Street Sweeping	Mechanical	1
Drain Cleaning	< 1 meter storm water drain	3
Weed Cutting	Roadside weed cutting	36
Workers Deployment		
Beach Cleaning	4 Beaches	25
Sweeping Workers	A, B & C type Roads	280
House to House workers	Drivers & Workers	260
Loaders at Bulk Waste	Waste Collection from hotels, marriage halls,	20



M. R. P.
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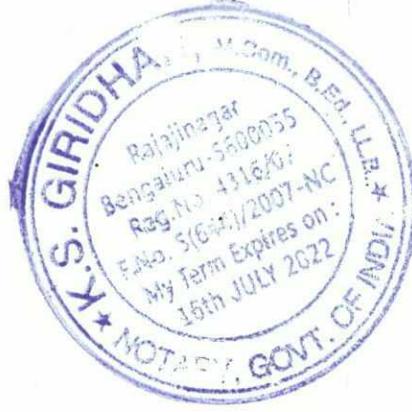
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tippers	caterers and others	
Loaders at street sweeping Waste tippers	Collection of Street sweeping waste from all 60 wards	30
Supervisors	Supervisors for different activities	19

M. R. P.
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6. High-tech Community Toilet By Gadag-Betageri CMC

DISTINGUISHING CHARACTERISTICS OF THE CITY:

Gadag-Betageri is the twin city municipality, which is situated 80 km from Dharwad and 60 km from Hubli, and lies on the Gutti-Vasco National Highway. Gadag Betageri is a city having 35 numbers of wards and having more than 59 slums. Sri Veerananarayan temple, Trikuteshwar temple are the main heritage places of the city.

SITUATION BEFORE THE INITIATIVE

Gadag-Betageri is a city having more than 59 slums. The slum had shown interest to construct their own toilet but due to shortage of land and existing un-hygienic community toilet blocks because of which poor families were practicing open defecation. Hence Municipality has provided high tech sanitation program for the slums dwellers under Swachh Bharat.Mission.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

1. Identification of site for construction of community toilet.
2. Fund allocation to KRIDL department.
3. Site clearance.
4. Construction work.

The work included following primary amenities

Gents side and Ladies side:

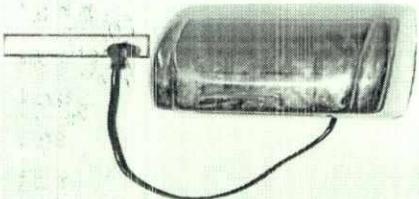
1. W/c Indian type 05 no's and European type 01 no.
2. censer 02 no's
3. Bathroom 03 no's
4. Physically disabled/ senior person 01 no (European type)

And also the following additional facilities to improve the living standards of the community

Washing machine



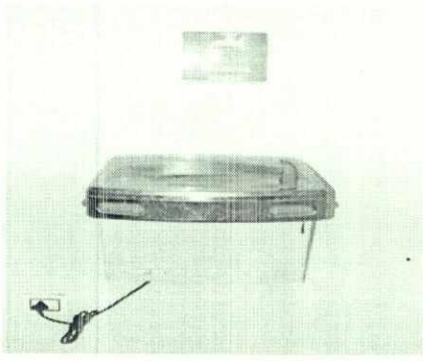
Hand dryers for both Gents & Ladies side



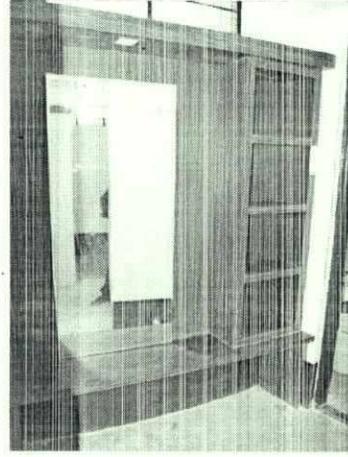
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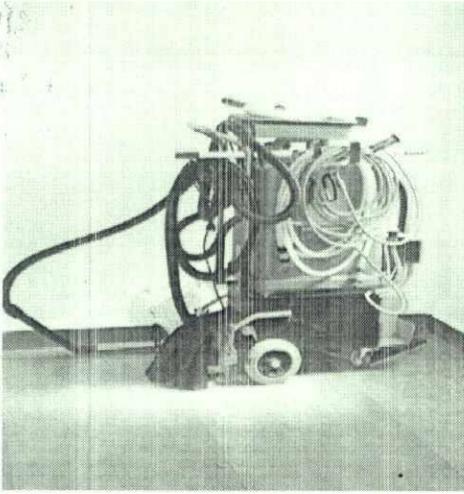
Hair dryer for both Gents & Ladies side.



Drinking water fountain for both Gents & Ladies side



Dressing mirrors with accessories (Towel Rod)



Vacuum clean machine

Motivation of people to use high-tech community toilet.

Awareness programme were carried out with participation of NGO's in each wards of the city for promoting the usage of toilets.



ACTIVITIES TAKEN UP TO IMPLEMENT THE INITIATIVE:

The Hi tech Community Toilets were constructed by sending the proposal to Government of Karnataka. The MLA Fund was Contributed to Department of KRIDL(Karnataka Rural Infrastructure Development Limited). By This Department project was taken under supervision of City Municipal Council Gadag Betageri. The Overall planning and suggestion was spared by involving various skilled Engineers of both the Departments. District Minister took personal interest and paid frequent visits while under Construction to supervise the construction of modern community toilet, so that services could be easily accessible to the public at a low cost.

THE BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE

- 1) It helps to achieve 100% open defecation free community.
- 2) Control of diseases and pathogens that are transmitted by open defecation.
- 3) Collective behavioural change through effective community mobilization.
- 4) Communities irrespective of geographical background or socio-economic status, can be mobilization to attain ODF status without any external support.



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- 5) To sustain this practice in a predominantly BPL community and enable them to move up the sanitation ladder, institutional support from the Government is critical.
- 6) Has improved the quality of living of the entire community

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE

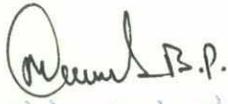
The Constructed Community Toilet can be improved by providing more number of facilities on view of user demand. The Smart Card can be provided to each households for easy utilization of toilets in lower cost by the community. By the success of these High tech community toilets the CMC has planned to extend this facility to other slum areas and also planned to improve the existing community toilets.

SUSTAINABILITY

- 1) Maintenance of Community toilets by taking the outsource labours for cleaning purpose by the CMC.
- 2) By giving the continuous motivational programmes and awareness programmes to the public.
- 3) By announcing the whole area or ward as "Open Defecation free" wards.

RECOGNITION /AWARDS

With this "High Tech Community Toilet" project was selected for the "SKOCH Swachh Bharat Award 2016" which was held on 8th June 2016 in Mumbai .


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7. Fecal Sludge Treatment Plant by Devanahalli TMC

Introduction

Sanitation has always been a neglected component in the India. With sprawling urbanization and population growth sanitation management is the next big challenge to focus upon. Fecal sludge management in one such approach to tackle this striding issue, which encompasses the complete sanitation value chain. There has been no median change in the situation, with the current approach and tools in-place for UGD connection availability is not viable for the country as a whole, with majority of households depending on onsite sanitation systems, there is an imperative need to have policies and management tools for effective management of human excreta and protect the environment.

CDD society a Bangalore based not for profit organization providing sanitation based solution for more than a decade has now taken up this challenge and in active partnership with ULB's has piloted the first effort towards a big leap by drafting a comprehensive sanitation policy operative guidelines in consultation with various government officials ,subject matter experts, along the same line with the active partnership and support of TMC Devanahalli,indias first FSTP plant has been constructed and is currently operational for the past 7 months catering to the human excreta generated from 400o households.(refer to appendix 5)for details on plant operations so far.

Devanhalli with no prospective of UGD connection and 90% households having access to toilets was deter mental in making the choice to implement the FSM policies and construction of treatment facility.

In this continuous effort for safe management of human excreta, various rounds of workshops and meetings were held with the TMC staff and elected representatives based on 7 months of ground study and observations made by CDD team the need for various resolutions and council level mandates were realized and agreed upon for effective implementation of policy guidelines.

TMC,Devanhalli having adopted these policies will entail to be the first ULB in India to have implemented comprehensive guidelines and bylaws for effective management human excreta management across the sanitation value chain.(Refer to Appendix 7 for details on what is sanitation value chain the gaps in each of the same existing currently, which hinder the environment protection).

Activities taken up to implement the initiative:

TMC council Devanhalli in coordination with CDD society has accomplished the following over a time span of 1 year have made the following accomplishments in the sphere of faecal sludge management and sanitation.

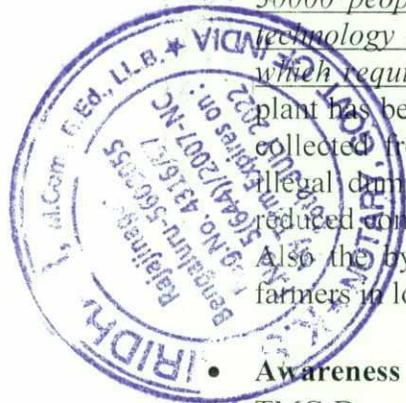
- **Treatment and reuse:**

In collaboration with CDD society and their state of the art services rendered relating to technology based sanitation solutions, a Faecal Sludge treatment plant has been constructed along with co-composting unit for effective treatment of human excreta generated(6000 Liters per day capacity which serves to faecal sludge generated for a town population of 30000 people, the treatment plant is completely non mechanical, functions on anaerobic technology and is constructed out of prefabricated modules is a state of the art facility, which requires least skilled labor and electrical consumption is negligible). Currently the plant has been operational for the past 6 months and has treated more than 32 lacks septage collected from households across the town. Due this practice of ensuring sanitation, the illegal dumping of faecal sludge in open farms and water bodies in the surrounding has reduced comparatively, and people have been sensitized on the same.

Also the by products such as dry sludge and treated water are effectively channeled to farmers in locality as part of their reuse initiative.

- **Awareness Campaigns:**

TMC Devanahalli along with CDD society has conducted ward level awareness workshops for public on safe sanitation practices and importance of desludging. So far following are the key achievements on the same note:



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- Video shows: 7; 195 participants; 390 people reached
 - Group discussions: 5; 132 participants; 528 people reached
 - Mason trainings: 1; 12 participants; 48 people reached
 - Households without toilets visited: 132; 660 people reached
- **Capacity building:**
TMC Devanhalli along with CMAK, was able to organize 4 day workshop on FSM and FSTP for elected representatives across 200 ULB's of Karnataka. Also the schools in the locality have been sensitized by arranging tours and visits for children on safe sanitation practices along with CDD.
 - **Landscape study:**
A comprehensive survey was done at household level across 23 wards of Devanhalli on households level sanitation situation of town. Through this survey a comprehensive database of households based on their current sanitation amenities was designed and used for effective monitoring of the same. The database was key in charting households without toilets and having insanitary latrines across the town, for Swatch Bharat Mission implementation in the town. This information is further used in assessing and monitoring the FSM and Swatch Bharat Mission program implementation. (Refer to **Appendix 9** for detailed survey findings at ward level)
 - **Transportation and disposal:**
In order to optimize the cesspool vehicle operations and disposal practices, TMC Devanhalli along with CDD society ground team has continually travelled with the TMC vehicle, collated data online and provided optimal solutions such as better operations protocol for vehicle operations, have successfully set up a call center for receiving desludging requests from households, training for drivers and operators on safety and desludging protocols, time management, other operational and customer interaction protocols.
 - **Sustainability:**
Having successfully build and commissioned a treatment plant, has been also working on making the plant operations self-sustainable by building effective business model to sustain the costs incurred for operations and maintenance. They have successfully source sales channel for sale of dry sludge to farmers through the existing farmer associations and word of mouth approach.

Description of the initiative / implementation strategy:

Based on the on ground study conducted by CDD society over a time span of 7 months in Devanhalli it was realized that for effective implementation of policy operative guidelines and efficient management of plant operations, cesspool vehicle operations it was necessary to make amendments and incorporate changes to the new policies and resolutions.

Based on round of discussions and meetings held at CDD society office and TMC.office with CDD senior staff members and municipal council members .it was agreed to draft and pass new resolutions for effective implementation of FSM in Devanhalli.

In the same aspect 4 key resolutions recommended and agreed upon by the town council and other elected representatives are as follows:

- **Tendering of O&M to third party:** Sourcing the TMC vehicle and FSTP plant operations and maintenance to a third party through tendering of the services.
- **Property Tax inclusion:** To meet the cost incurred by tendering of operations, ULB can meet these costs by levying additional property tax at household property level.
- **NOC for new properties constructed:** To ensure the onsite facilities re constructed as per guidelines, TMC to validate the plan and certify with a NOC before the constructed can be started and people and proclaim tenancy of the property.
- **Regulate dumping of faecal sludge:** To regulate and monitor dumping of faecal sludge since currently its dumped in open drains and undersigned farm land. Of the same private



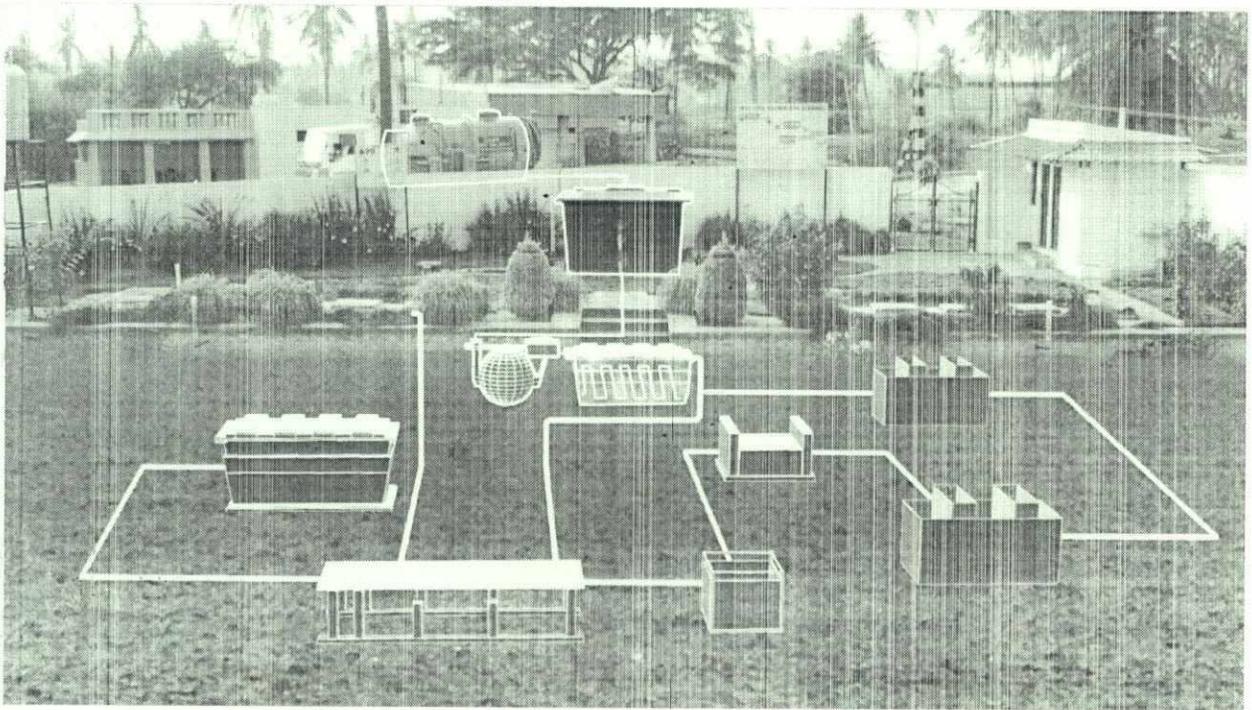
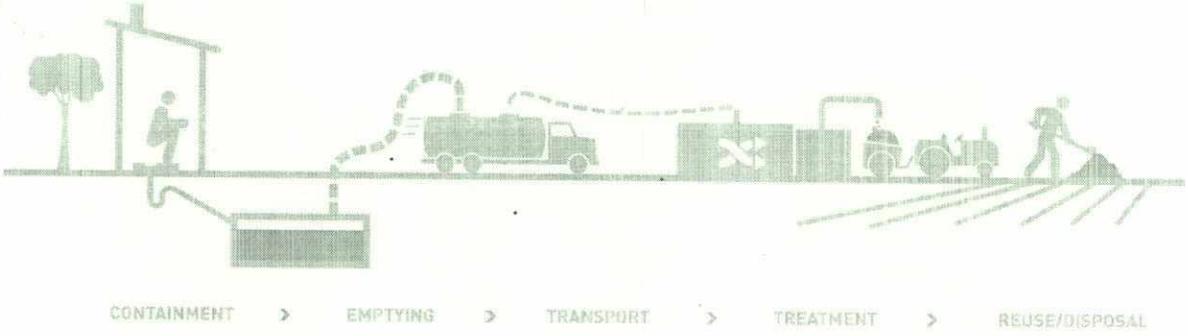
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operators in the town council limits to register with TMC and be certified with a licensed and monitored and regulated to dump the sludge collected at FSTP plant.

Sanitation Value Chain



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8. Solid Liquid Resource Management by Kaapu TMC

Kaapu is a small town on the Western Coast National Highway 13 km south of the city of Udupi and 40 km north of Mangalore in southern Karnataka, India. The town has been newly constituted by integrating Kaapu, Mallaru and Uliyargoli gram panchayats. The total population as per 2011 census data is 21,887. The town has 19 wards and the total road length is 88 kms with the area of 23.416 sq.km.

Earlier the waste generated in the town was dumped in open space, heap of solid waste got accumulated over time in private land which resulted in unhygienic condition and spread of many diseases.

Such a situation does not exist now, substantial changes were observed in the recent times. Public meetings were organised to emphasis citizen's responsibility to segregate wet and dry waste. Trainings were conducted to all the sanitation workers on scientific waste handling methods. Prominence was given to personnel hygiene and occupational safety. Awareness campaigns, door to door canvassing, auto announcements were conducted to stress the need on segregating the waste at the source. Necessary vehicles were procured for waste collection. Presently 100% source segregation and door to door waste collection is followed in the town. The town has no black spots as existed earlier. A system of decentralised waste processing is followed and the wet waste is converted to compost. The dry waste like plastic handbags, metals, rubber, glass, cardboard, paper etc are segregated and are sold. The revenue collected from sale is 1,48, 385/- in 3 months. The old waste is treated by spraying bioculture to reduce the degradable portion of waste.

The town now has a well organised system of waste collection, processing and disposal.

Scenario before implementation of SLRM initiative



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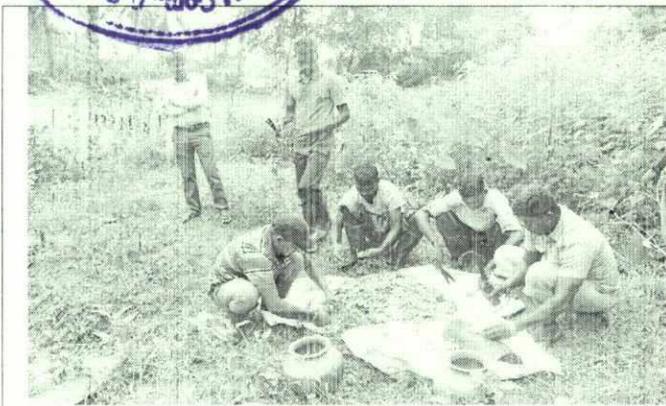
Distribution of Buckets for separate collection of waste & Door to Door collection of separated wet and dry waste



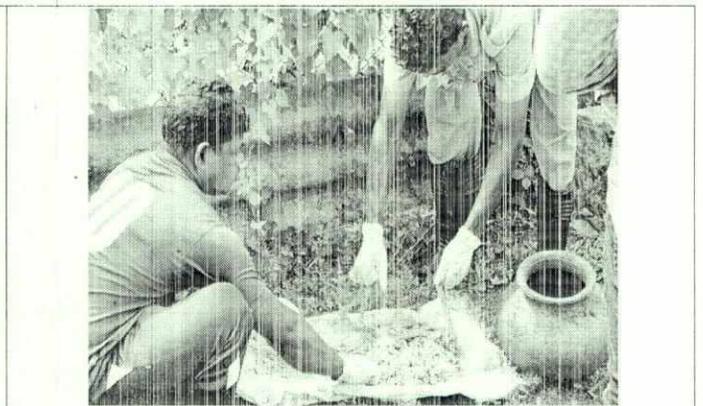
Composting of Municipal Wet Waste at Private Land in Mallar, Kaup



CULTURE PREPARATION BY USING MEAT AND FISH WASTE BY SLRM METHOD



Chopping of collected meat waste



Putting the meat waste into Mud part

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Part with waste, cow dung, cow urine and jaggery



Placing culture parts on layer of dry leaves



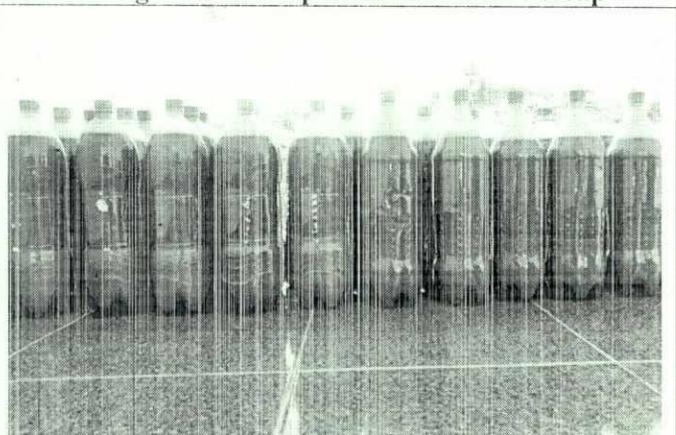
Covering the culture setup with Gunny bags



Taking the culture part out of culture setup



Filtering the contains of culture parts



Culture filtrate obtained from mutton waste

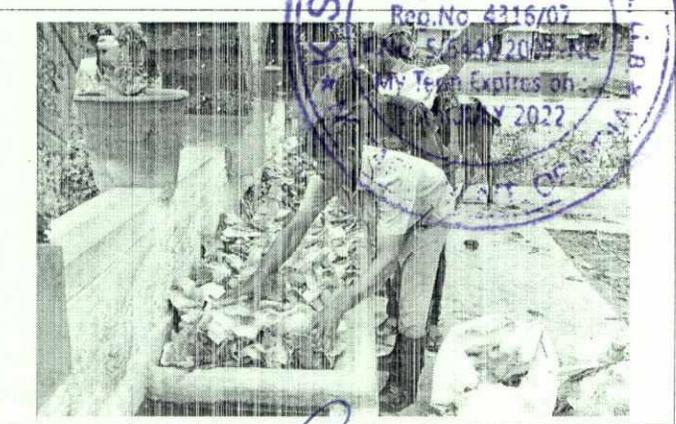
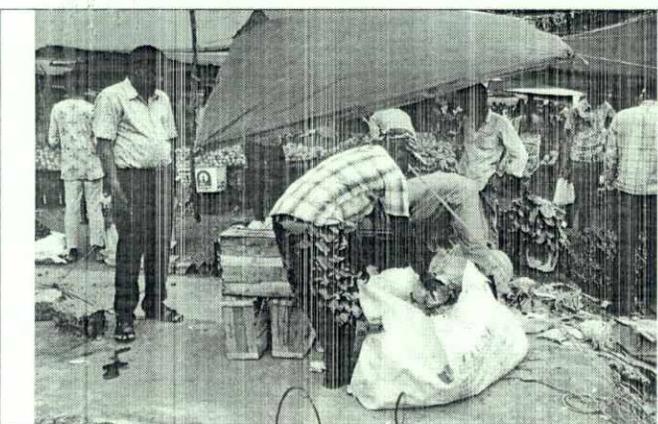


Growing of Mutt Gulla using culture filtrate



Growing of Mutt Gulla using culture filtrate

MANAGEMENT OF VEGETABLE WASTE BY SLRM METHO

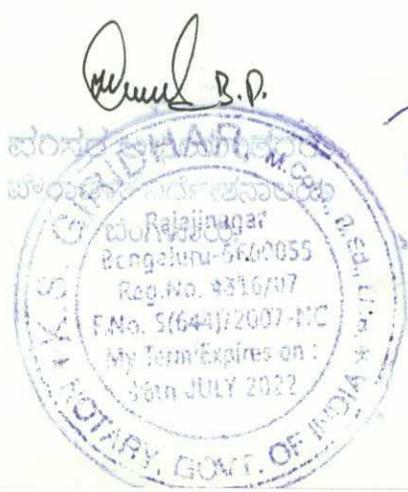


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Smt. Almitra Patel suggested the city compost which comply with FCO standards can be used for edible crops and other compost which does not comply with FCO standards can be explored if it can be used for growing non-edible crops, without deleterious effect on soil health.

- The Committee opined that, agriculture department can look into the technicality of FCO standards which can be relaxed and submit the report to UDD. This report should contain information regarding the parameters which can be relaxed without affecting the soil health adversely and in the meantime can facilitate the sale of city compost. Based on which proposal can be submitted to GOI.
- It was brought to the notice of the Committee that MCF is not able to lift the city compost before the expiry of shelf life of the city compost. In BBMP, Mangalore and Mysore cities lots of city compost is lying un-lifted occupying a lot of space in landfill site. The Committee opined that MCF as lead fertilizer company has the responsibility of lifting all the city compost generated in the larger municipalities by having suitable road map for selling the same within stipulated time. In this regard all the three tagged city compost marketing companies should be asked to submit action plan for selling city compost generated in major compost plants in State including BBMP, Mysore, Shivamogga, Belagavi, Tumkur, Mangalore cities.
- Representative from IPL informed the Committee that , IPL is selling city compost at the MRP of Rs.4000/- and is picking city compost from Ramky Enviro Engineers SWM processing plants at Belgavi and Shivamogga.
- Representative from BBMP informed the Committee that, BBMP in consultation with agriculture department has fixed MRP of city compost per tonne of loose compost sold to farmers as Rs.1600/-. Agriculture department has agreed to pay a subsidy of Rs800/- ton and farmer need to pay just Rs.800/- per tonne of city compost. If the city compost is lifted up by the farmer from the processing plant, then one tonne of compost is sold at Rs.125/- tonne.
- Since most of the farmers are averse to use city compost because of the perception that it might contain heavy metals, glass/metal pieces, the Committee opined that in order to gain confidence of farmers for usage of city compost, awareness programs need to be jointly conducted by Agriculture Department & Urban Development Department.
- The Committee opined that tagged marketing company should be more aggressive in promoting sale of city compost. It was further opined that a letter should be written to MOUD seeking to stop subsidy to these companies for sale of chemical fertilizers if they fail to sell the quantity of city compost designated for that company. Ministry of Chemicals & Fertilizers has fixed tonnes of city compost that needs to be sold by each of the tagged compost marketing companies, same details need to be shared with the States so that States are in position to follow up with the marketing agencies.



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- The Committee opined that city compost manufacturers /ULBs operating SWM processing plants should make sure quality prescribed by the competent authority should be maintained, if required improved composting technologies available should be absorbed so as to maintain the quality of city compost.
- The Committee, instructed that care should be taken by BBMP to make sure that only wet waste (especially market) waste is sent to compost plants located within or in the city vicinity so that smell and other nuisance can be prevented.
- The Committee opined that Agriculture Department & Horticulture Departments should issue directions to their subordinate offices to buy city compost generated in their respective jurisdictions so that smaller ULBs can be motivated to generate city compost.

The meeting ended with vote of thanks.

Mahendra Jain
 (Mahendra Jain, IAS)
 Additional Chief Secretary
 Urban Development Department
 Karnataka

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