

**Presentation/Briefing Note Appearance of Chief Secretary
in OA 606/2018**

Suggestive Contents of Presentation/Note:

ISSUE-1: Solid Waste Management (at the State level*)

- i. Waste generation per day – **12125 TPD**
- ii. Waste Processed per day – **9679 TPD**
 - Gap in Solid waste processing is 2,446 TPD in other than GHMC.
 - GHMC is having 100% Integrated Municipal Solid Waste Treatment & Disposal Facility with a capacity of 7000 TPD.
 - 5 ULBs (other than GHMC) have scientific facility for processing wet & dry waste.

Action plan to fill the gap:

- a. Establishment of processing facilities with a capacity of 2974 TPD is under the finalization stage in 129 ULBs grouped under 9 clusters.
- b. 7 ULBs are floating tenders separately.

Rural areas have 100% processing facility in all 12769 GP(s) with Village Dumping Yards (segregation sheds)with Rs.279.10 Crs, and provided with Tractor Trolley and Tanker with Rs.1046.7 Crs. Crematoriums were built in all the GPs.

- iii. Waste being deposited in landfill (per day) – **835 TPD**
- iv. Legacy waste sites: (with quantity of waste accumulated, area of the site, remediation status, area reclaimed, residue/ reject management):**151 dumpsites in 129 ULBs in an area of 965.31 acres.**
 - a. GHMC appealed before the Hon'ble NGT & Hon'ble Supreme Court of India for allowing capping of dumpsite as 90% of works were completed, but appeal was dismissed.
 - b. GHMC approached the CPCB for guidelines on Bio-mining of capped dumpsite.
 - c. CPCB advised to seek expertise of reputed Technical Institutions/ experienced Municipal Corporations.
 - d. GHMC engaged the services of IIT Bombay to assist & guide GHMC in framing guidelines for bidding.

- e. In compliance of Hon'ble NGT orders, GHMC called global tenders dated 13.07.2022 for biomining of legacy waste at Jawaharnagar with an estimate of Rs.660 Crs and 3 years time period.
- f. No bidders are participated in the tender.
- g. GHMC to reissue the tender, based on the report of IIT Bombay
- h. Other than GHMC, the legacy waste is 6.0 Million Tons.
- i. Bio-mining is in progress in 6 ULBs and so far 1,57,884 MTs legacy waste processed.
- ii. 123 ULBs grouped into 9 clusters for bio-mining and concessionaires have been appointed with target completion of 18 months.
- v. Completion of works in selected Model Cities, Towns and Villages

Sl. No .	Model City / Town / Villages identified	Door to Door collection	Segregation	Processing	Facilities
1.	Hyderabad	100% 6945 TPD	52%	100 % Integrated SWM with 7000 TPD	Waste to Energy, Plastic recycling, Composting, Bio-Methanation facilities established.
2.	Warangal	100% 410 TPD	95%	389.81 TPD	Plastic recycling, Composting, Bio-Methanation facilities established.
3.	Karimnagar	100% 154.84 TPD	95%	147.1 TPD	Plastic recycling, Composting, Bio-Methanation facilities established.
4.	Siddipet	100% 35.89 TPD	100%	35.89 TPD	Plastic recycling, Composting, Bio-Methanation facilities established.
5.	Siricilla	100% 19.68 TPD	95%	18.69 TPD	Composting and DRCCs facilities established.
6.	Boduppal	100% 38.23 TPD	90%	34.4 TPD	Composting and DRCCs facilities established.
7.	96 villages @ three villages each in 32 Districts	100%	100%	100% Wet and Dry waste	Trolley with compartment for Door to Door collection and processing facilities for dry and wet waste constructed. Tie up with Plastic waste recycles established.

**Information needs to be compiled based on available statistics with respect to each city, town and village and at District level and finally compiling consolidated status at the State level.*

1.1 Issues for consideration:

- i. Ensuring that data is reconciled with CPCB.*
- ii. Mentioning on setting up of Assistance Centre at State and District level to facilitate Municipal Bodies to execute their action plan with Technical and Funding support to avoid delays.*
- iii. Ultimately, conclude on existing gap and accomplishing the targets to achieve compliance in shortest time, as the time limits are over and having overseeing Monitoring mechanism.*

ISSUE-2: Sewage Management

- i. Summary Status at State level based on information with State and District level (for each city and town);*
 - Sewage generation – **2750 MLD.**
 - Existing treatment capacity– **Municipal STPs-905 MLD,**
Non-Municipal STPs-160 MLD,
 - Utilization– **925.58 MLD**
 - Performance of STPs with standards, like BOD, SS and FC –
Meeting the standards. 20 STPs are connected with online continuous monitoring system with IP cameras and monitoring is facilitated through an APP in mobile
 - **Utilisation capacity is increased as the operation of all the STPs was outsourced to single operator**
- ii) Time frame in shortest way to complete the works for 100% compliance thereby reducing gap*
 - **46 STPs with a capacity of 1473.5MLD are under construction with a deadline of June, 2023. More than 50% works are completed**
 - **82 STPS with a capacity of 655 MLD are proposed.**
 - **10 STPs with 340.5MLD -DPRs are ready and are in the process of administrative sanction in HAM mode**
 - **72 STPs with 315 MLD capacity an agency was engaged for preparation of the DPRs under HAM mode with a timeline of 10th February, 2023.**

2.1 Connecting Issues:

- i. Connectivity of sewers to STP to utilize the designed capacity and utilization of treated sewage.
 - **In addition to the existing 5700KMs of UGD in GHMC area, an additional 5868 Km length of sewerage network is also being taken up along with the under construction 31 STPs to cover the entire ORR area i.e. beyond GHMC and within ORR**
 - **Total length of Under Ground Drainage (UGD) network in the state other than GHMC:1778.00 Kms**
 - **UGD scheme under implementation in 9 towns under AMRUT-2**

- ii. Storm water drains not to be used to discharge sewage and preventing encroachments.
 - **Total length of existing storm water network in GHMC area-1302KM**
 - **The improved UGD subsided the entry of the sewage in storm water drains**

- iii. House hold sewer/septic tanks connection to be ensured and setting up of fecal sludge treatment facilities.
 - **After launching Swach Bharat Mission in 2014, all urban households (not having septic tanks) were sanctioned Swach Bharat Toilets on saturation mode and nearly 1.67 Lakhs have been completed. All urban households are either covered by septic tanks or Swach Bharat Toilets and the problem of sewage mixing in open drains is subsided.**
 - **Magic soak pits are taken up in rural areas and so far 11.73 Lakh are completed with another 1.5 lakh construction under progress.**
 - **Fecal sludge treatment facilities details are as follows:**

Sl. No.	Treatment Facility	So Far Established	Under construction	Proposed
1	Co-Treatment Facilities – GHMC area	7 with 70 KLD	-	Nil
2	Standalone FSTP–GHMC area	1 with 40 KLD	-	-
3	FSTPs in	21 with 670	40 with 680	Work orders has

Sl. No.	Treatment Facility	So Far Established	Under construction	Proposed
	other than GHMC areas.	KLD	KLD to be completed by March, 2023 Total expenditure for 61 FSTPs is Rs.250.73 crores	been issued for construction of FSTP in another 68 ULBs with 495 KLD capacity with Rs.177.33 crores.

iv. SPCB with Industries and Urban Development Department, to identify bulk users treated sewage and tie up for operation and maintenance of required facilities.

- **Jeedimetla Effluent Treatment Plant a Common Effluent Treatment Plant is using 2 million liters per month of the treated wastewater**
- **All the industries are using the domestic treated water within the premises for gardening and in cooling towers.**
- **Singareni Collieries is using all the 16MLD treated water for gardening and dust mitigation measures.**
- **HMWS&SB has engaged a consultant to identify the potential bulk users and the report will be implemented in synchronization of the commencement of the new STPs.**
- **At present treated water is being used for the plantation /Haritha haramprogram.**

v. Assistance Centres at District level to facilitate municipal bodies to set up STPs and laying sewers with identified Executing Agencies.

ISSUE-3: Mentioning

3.1 Keeping brief Status Notes ready on:

- a) Plastic Waste management – Annex-I
- b) Biomedical Waste management– Annex-II
- c) C& D Waste management– Annex-III
- d) E Waste– Annex-IV
- e) Hazardous Waste management– Annex-V
- f) Air quality management in cities/towns– Annex-VI
- g) Regulating Sand Mining– Annex-VII
- h) Industrial pollution control– Annex-VIII
- i) District Environment Plans– Annex-IX

3.2: (i)Monitoring Mechanism (as suggested by NGT as Environment Cell) in the office of Chief Secretary- Constituted.

- **The cell is constituted by an EE cadre officer and is operational**
- **The EM cell updates the progress on the implementation of the action plan and co-ordinate with different stakeholders.**

(ii) District and State level meetings on Environmental issues.

- The committees constituted at the apex level like River Rejuvenation committee, Air Quality Monitoring Committee, State Level and District level Committee for MSW, Bio-Medical Waste committee, are reviewing the progress at regular intervals. Quarterly Progress Reports on the status of implementation are being submitted regularly.

iii) Reference of earlier orders in OA 606/2018 where the Chief Secretary has already appeared.

Annexure-I

Plastic Waste Management

- Plastic waste generated : 1356 TPD (GHMC-1035 TPD, Other ULBs-321 TPD)
- Utilized in recycling: 230.6 TPD
- Co-processed in Cement kilns:132.0TPD
- Production of Waste to oil: 46.0 TPD
- As Refuse Derived Fuel (RDF): 734.00 TPD
- All ULBs (242 DRCC) & 12769 GPs having facilities for Collection of Segregated waste
- Plastic waste recyclers: 36 nos with 138TPD

Ban on Single Use Plastic

The State Government prepared Comprehensive Action Plan for effective implementation of PWM Rules, 2016 and Elimination of Single Use Plastics along with the instructions.

The ES&T Dept., Govt. of Telangana vide G.O.Ms.No.40, dt.01.07.2022 issued Notification prohibiting certain Single Use Plastic items and also notified provisions for penal action. The notification also specifies the prescribed authorities for implementation of GO, Monitoring Cell, Promotion of eco-friendly alternatives and Social Awareness & Public Education.

Annexure-II

Bio-Medical Waste Management

a. Status of Health Care Facilities (HCFs) in Telangana:

- Total number of Health Care Facilities (HCFs) -8,149.
- Hospitals with beds - 4,221(1,22,321 nos of beds)
- Hospitals without beds - 3,928
- Bio-medical Waste (BMW) Authorization -7,833.

b. Category wise Bio-Medical Waste:

The details of Daily average Bio Medical Waste generated as per the annual reports for the years 2017, 2018, 2019, 2020 & 2021 are as follows:

Category	2019 (in Kg/day)	2020 (in Kg/day)			2021 (in Kg/day)		
		COVID	General	Total	COVID	General	Total
Red	5,085	285	4783	5068	489	4671	5160
Yellow	12,016	1994	13554	15548	1499	14326	15825
Blue	2,729	11	2485	2496	239	2299	2538
White	642	75	623	698	69	643	712
Total:	20,472	2,365	21,445	23,810	2296	21939	24235

c. Collection and transportation:

- Bio-medical waste is collected by the designated route vehicles fitted with GPS.
- Bar coding is under implementation along with segregation in colour coded bags.

d. Bio-Medical Waste Treatment Facilities (CBMWTFs) in Telangana:

- 11 Common Bio Medical Waste Treatment Facilities (CBMWTF) are in operation and presently sufficient to serve the HCFs.
- All the 11 CBMWTFs had upgraded Secondary chamber to meet new emission standards and retention time of 2 sec.
- All CBMWTFs have installed online continuous stack emission monitoring system (OCEMS) and IP cameras as per the CPCB guidelines and the data is connected to the CPCB & TSPCB servers.

- a. The concentration of CO₂, CO, NO, NO₂, O₂ Primary and Secondary temperatures are monitored.

- TSPCB has communicated design details of modular STPs suitable small, medium and large HCFs to the Stake holder departments.

Annexure-III

C&D Waste Management

GHMC:

- GHMC has two C&D recycling plants with 500 TPD capacities each at Jeedimetla and Fathullaguda are under operation.
- Citizens can raise request by calling toll free no: 1800-120-1159 to lift their C&D waste for which citizen shall pay the charges to the Concessionaire
- The C&D plants have collected 4,40,826 TPA out of which 1,07,903 TPA of C&D waste has been recycled in the year 2021- 2022.
- It is proposed for two more plants with 500 TPD each (Total 1000TPD) with collection of the waste from 10-10-2022.
- **Products:**The following items after Treatment and Processing of C&D waste from the above plants which are useful for non-structural purpose such as footpaths, road sub-base etc:
 - Recycled Aggregates: 1) 80 to 40 mm size; 2) 40 to 20 mm size; 3) 20 to 8 mm size; 4) Coarse sand 5) Fine sand
 - By-products: 1) paver blocks 2) parking tiles 3) kerb stones 4)pre-cast compound walls.

Other than GHMC:

- C & D Waste collection in other than GHMC area (3 clusters) with a capacity of 247 TPD is expected to be commenced by March, 2023 at an estimated cost of Rs.21 Crs.
- Action Plan has been prepared by the ULBs for C&D waste management.
- Separate site for storing C&D waste is earmarked by all ULBs.

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Annexure-IV

E-Waste Management

- There are 12 nos. of E-Waste Dismantling units and 3 nos. of E-Waste Recycling units In the State of Telangana with a capacity of 8546.8 TPD.
- There are 3 nos of recyclers with a capacity of 43775 TPA.
- **Extended Producer Responsibility:**The CPCB has issued EPR Authorizations to 29 nos. of producers in the State.
- As per the Inventorization report, the projection for E-Waste generation in HMDA for five years (in Metric Tons) is as follows:

2017-18	2018-19	2019-20	2020-21	2021-22
33,425.3	37,456.6	40,230.5	44,945.2	50,335.6

- As per the Annual Report 2020-21, the total E-Waste processed by the authorised dismantlers and recyclers is 38346.163 Metric Tons.
- Bulk Consumers: During the year 2020-21, e-waste data pertaining to 1209 Nos. of Bulk Consumers was obtained. These Bulk consumers have generated E-Waste of 11763.16 MT which was sent to authorized Dismantling / Recycling units for safe disposal.
- Awareness among the consumers of EEEs is required to regulate the e-waste collection.

Annexure-V

Hazardous waste management

Hazardous waste management

- The Telangana State is having one Integrated Common Treatment Storage & Disposal Facility (TSDF) for Hazardous Waste, namely M/s. Hyderabad Waste Management Project (HWMP) at Dundigal (V), Medchal-Malkajgiri District. The facility has
 - Incinerator of capacity 1.5 TPH
 - Engineered landfill facility
 - Pre-processing facility for preparing alternate fuel for cement industries.
- The Board has also permitted other five pre-processing facilities with a processing capacity of 2,25,000 TPA and presently four facilities are under operation.
- The Board has permitted 46 recyclers of hazardous waste with authorized capacity of 2,29,965 TPA.
- As per the Hazardous Waste annual report furnished to CPCB for the year 2020-21, the total number of hazardous waste generating industries in the State are 3179 and the following quantities of hazardous wastes is generated:

Recyclable Waste (TPA)	92,562
Incinerable Waste (TPA)	2324
Utilisable waste (TPA)	1,27,103
Landfillable Waste (TPA)	1,11,344
Total:	3,33,334

- There is no gap in the generation and treatment.
- Online manifesto, GPS fitted vehicles for tracking the movement of hazardous waste is under implementation.

Annexure-VI

Air Quality Management in Cities/Towns

TSPCB is monitoring ambient air quality at 52 locations. Out of which, 14 are continuous ambient air quality monitoring stations (CAAQMS) and remaining are manual stations.

The ambient air quality ranges from Good to Moderate in the State. The annual average concentrations of PM10 ranged from 35 to 100 ug/m³. Central Pollution Control Board has identified four non-attainment cities in the state of Telangana out of 144 cities in the country. The details of which are as follows:

Hyderabad, Patancheru, Nalgonda and Sangareddy.

City Name	2019-20	2020-21	2021-22	Target for 2025-26
Hyderabad	101	98	97	15% reduction per year
Patancheru	86	75	77	63
Sangareddy	85	78	84	64
Nalgonda	57	51	57	46

- Nalgonda is meeting the standards since 2016

I. Action Plan: An action plan covering the different sectors (Vehicles, road dust, C&D, open burning, industries and other mitigation measures like plantation etc) to reduce the emissions were prepared. Three committees are constituted as detailed below for implementation and to oversee the implementation:

II. Activities taken up by Govt.of Telangana:

- E-vehicle policy** has been unveiled with subsidies and incentives for promotion of e-mobility.
- Black topping & maintenance of damaged paved roads :** In FY 2021-22, a total 216 nos. of work for BT roads were sanctioned out of which 92 nos. of works has been completed in addition to CRMP work.

- c. **Regular pothole filling on roads:** In FY 2021-22, a total 25,628 nos. of potholes were filled in addition to roads maintained under CRMP project.
- d. **Intelligent Traffic System for synchronizing traffic movement:** Introduced Adaptive Traffic Signal Control (ATSC) and Pelican Signal System (PSS) for synchronising traffic movement and pedestrians safety. Integration of ATSC with 50 signals have been completed and remaining 166 nos. shall be completed by 31st Dec., 2022.
- e. **EV Charging Stations:** Electric charging infrastructure at 990 (90-fast charging & pole mounted remaining) are under installation by TSREDCO.
- f. **Sweeping machines:** 1850 km of roads are covered by Mechanical sweeping machines in 43 routes by 35 machines
- g. **Green buffer along the traffic corridor**
- Greenery is developed and maintained along the central median of 105 nos. on main road stretches.
 - 60 Traffic Islands, Rotaries have been developed for improving the streetscape visuals
 - 25 Flyovers across the GHMC have been embedded with landscape greenery
 - Vertical Gardens for 85 pillars of 19 flyovers are developed
 - Green ways, Green Curtains, Wayside views were developed on road margins at 56 Locations
- h. **Constructed Water fountains at major Traffic junctions:** 55 nos. of water fountains were constructed and maintained at major traffic junction
- i. **Greening of open areas, gardens, community places, schools and housing societies**
- 19 Major Parks each having more than 5 Acres in extent.
 - 970 Colony parks and 57 Major Theme Parks (> 1 Acre area) have also been developed across GHMC limits
 - Institutional plantation and distribution of saplings to public are being taken up under HARITHA-HARAM programme.
- j. **Regular enforcement for garbage burning:**
- GHMC sanitation team is conducting regular inspections and imposing penalty on violators which was controlled year by year.

Annexure-VII

Regulating Sand Mining

- The Government of Telangana introduced Telangana State Sand Mining Rules, 2015, vide G.O.Ms.No.03, dated 08.01.2015.
- TSMDC has deployed staff in the stockyard with Sand Reach Officer, Sand Reach Assistant and Security Guards to monitor Sand Mining and Transportation activities.
- Sand available areas identified in the Districts. I, II, III, IV & V order streams and also the reservoirs that require de-siltation.
- District Level Sand Committees conducted
 - detailed survey and identified the areas to be de-silted
 - Quantity of the sand to be extracted.
 - Environmental Clearance obtained wherever required.
- Sand Mining activities are monitored by TSMDC, through a website Sand Sales Monitoring and Management System.
 - Online Booking of Sand,
 - Electronic Transit Pass Generation,
 - Authentication of Vehicles along with Gross weight through RTA
 - Authentication of Customers through Aadhar database.
 - Security Paper is used for generating Transit Passes.
 - “Sand A Mobile” application is provided for enforcement.
 - Unique QR code is adopted in transportation of sand.
 - Sand operations carried out strictly between 6:00 AM to 6:00 PM
 - Closed Circuit cameras were installed in 83 sand reaches
- Air pollution in the en-route villages controlled by sprinkling the water on the roads and providing cover to all the trucks.
- 27 sand bearing area closed after expiry of Environmental Clearances.
- GPS tagging is under progress for sand transportation lorries for general bookings. Till now 9459 lorries installed GPS.
- The compliance of Hon’ble NGT orders is as follows: -

Hon’ble NGT directions	Compliance.
Demarcation of the sand reaches	While identifying the sand reaches they were demarcated by fixing geo-coordinates.
Compliance to the guidelines issued in Environmental Assessment (EIA) 2006 and Sustainable Sand Mining Management Guidelines 2016.	The guidelines issued in EIA 2006 and Sustainable Sand Mining Management Guidelines 2016 are strictly adhered to and while mining the sand. Obtained Environmental Clearance/CFE/CFO for 77 sand bearing areas and another 7 sites obtained EC & awaiting

	CFE/CFO. 47 sites yet to obtain EC/CFE/CFO.
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Annexure-VIII

Industrial Pollution Control

I. Details of Industrial Pollution:

- No. of industries in the State: **10655 Nos. (Including Red, Orange, Green & White).**
- No. of water polluting industries in the State: **2193 Nos.**
- Quantity of effluent generated from the industries in MLD: **603**
- Number of industrial units having ETPs: **1519 with capacity 602.35MLD (including 172 ZLD).**
- Number of industrial units connected to CETP: **674 Industries with 7.0 MLD.**
 - Details of existing CETPs are as follows:
 - 4 Nos. under operation with capacity 7.0 MLD and complying standards
 - 2 issued with closure directions for non-compliance
 - 1 not in operation due to business reasons
- There is no gap in the generation of effluents and treatment.
- All the 17 category industries in the State have provided online continuous emission /effluent monitoring system and IP cameras.
- A night patrolling teams are deployed to attend complaints on immediate basis.
- A Toll Free no.10741 is available for public re-dressal system.
- Industries are regularly monitored and reviewed through Task Force.

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Annexure-IX

District Environment Plan

- District Environment Plans were prepared and submitted to CPCB.
- DEP were prepared on the thematic areas
- DEPs includes action points to be implemented at district levels.
- As per the action points, a District Level Committee is constituted for overseeing the implementation by involving all the stake holder departments.
- These plans are under implementation and is reviewed by the District Collector.
- EM Cell co-ordinates and updates the progress on implementation.