



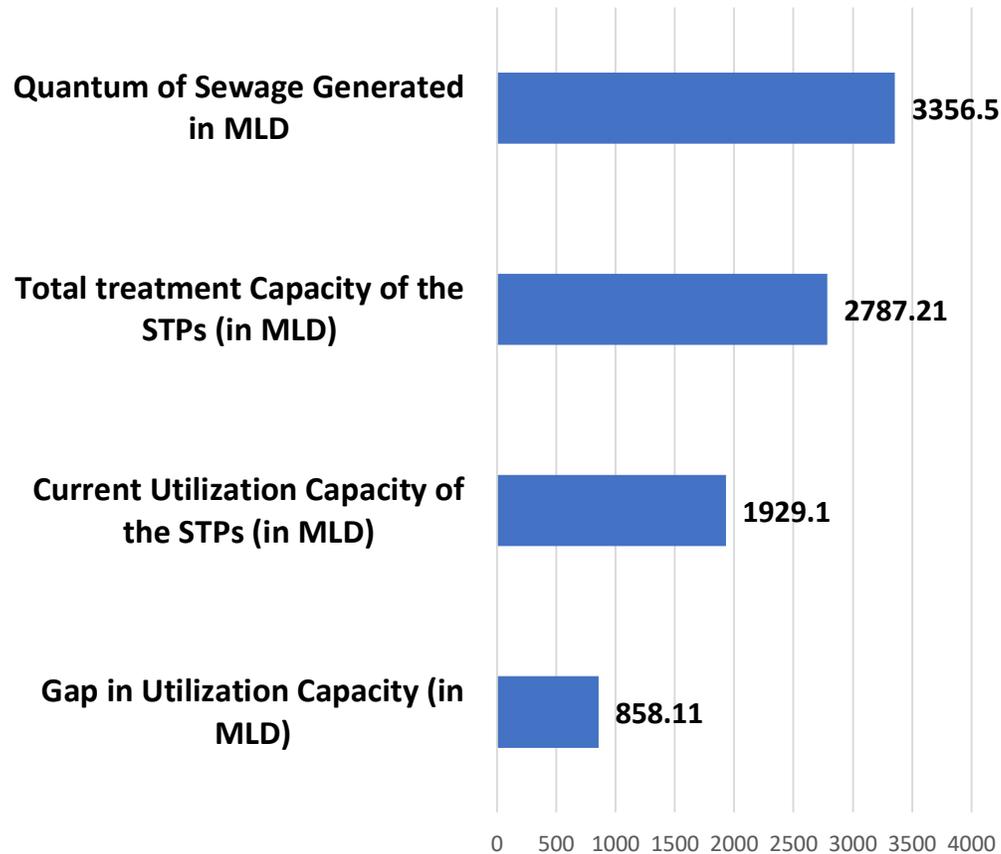
<b>Total Population</b>	<b>6.1 Cr (2011 Census)</b>
<b>Districts</b>	<b>31</b>
<b>Gram Panchayats</b>	<b>5947</b>
<b>Urban Local Bodies</b>	<b>313 ULBs + BBMP</b>



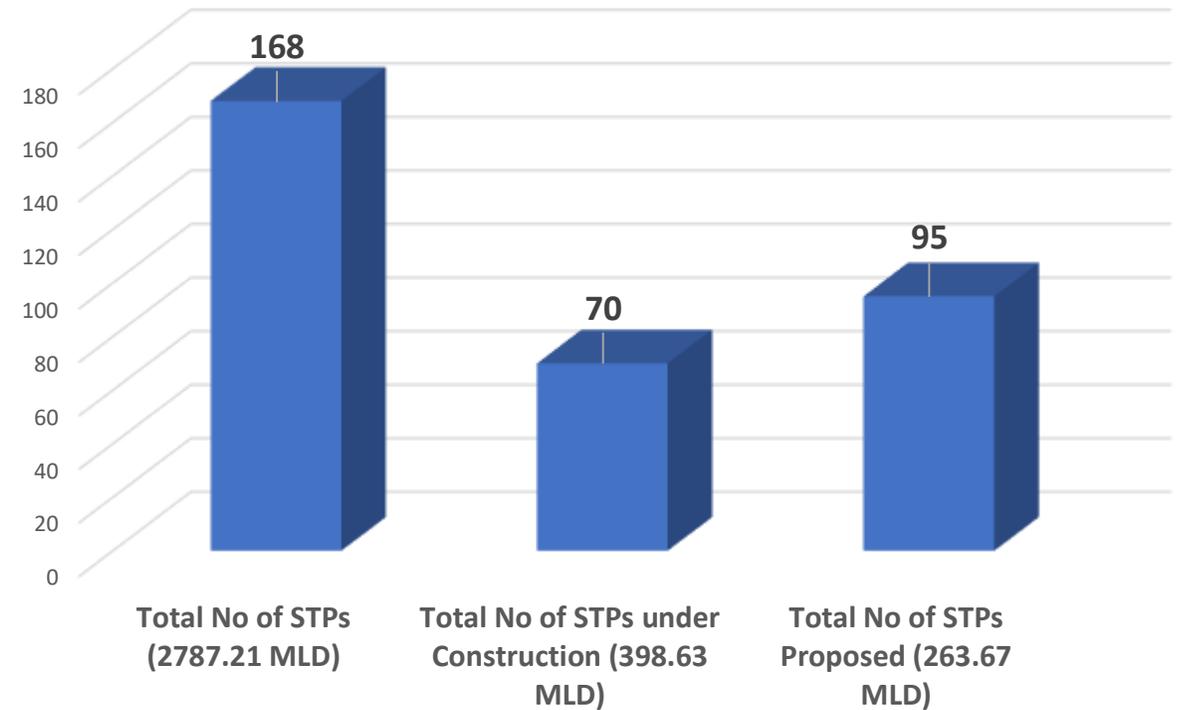
# Sewage Treatment and Utilization 2252

## KARNATAKA

### Status of Sewage Treatment



### Sewage Treatment Plants

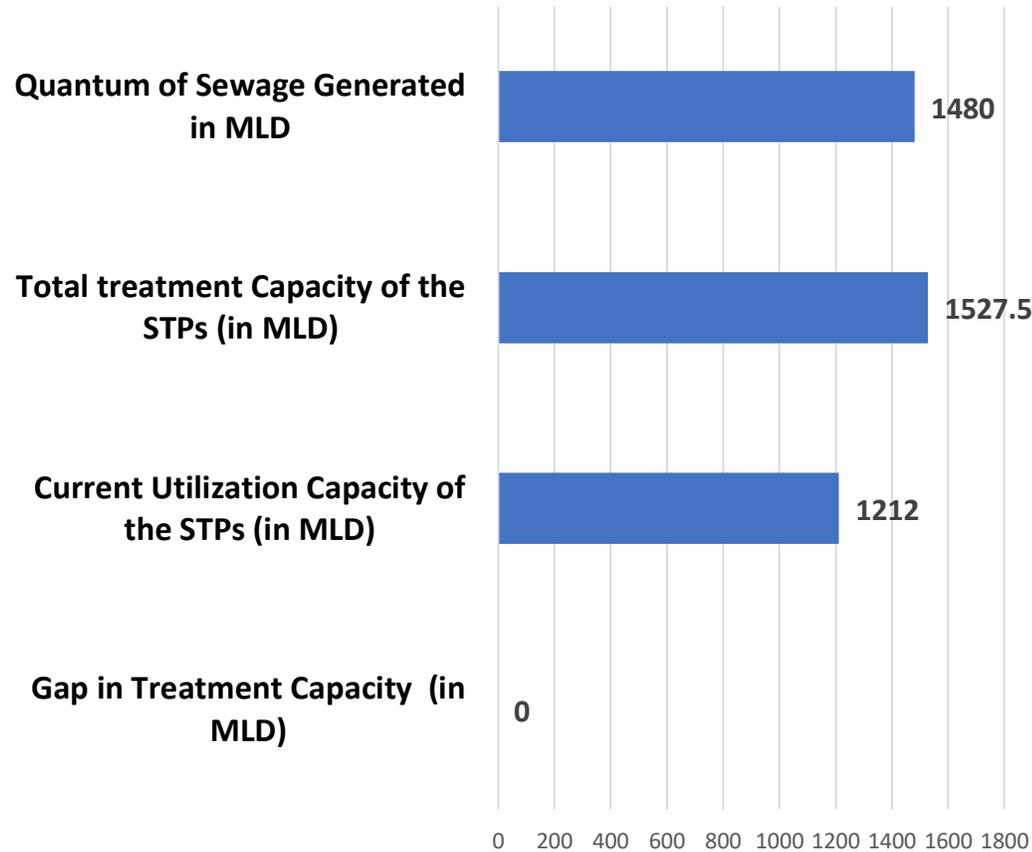


# Sewage Treatment and Utilization <sup>2253</sup>

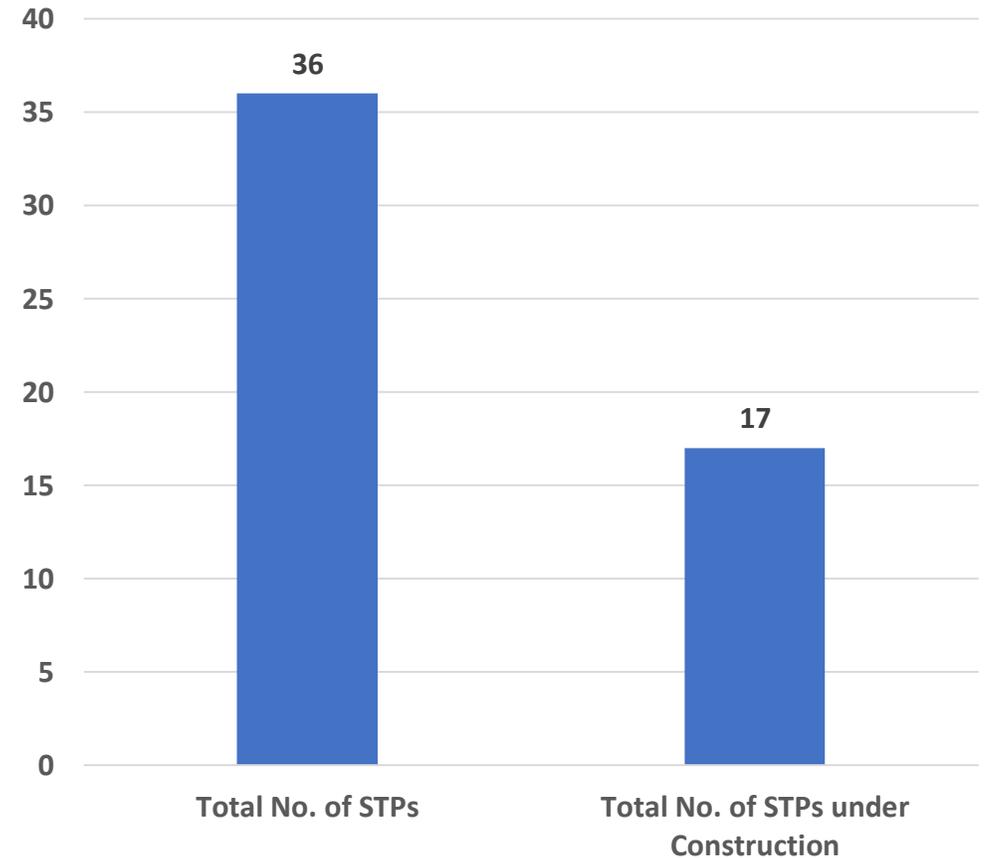


## Bengaluru

### Status of Sewage Treatment



### Sewage Treatment Plants



Various linking works of UGD are under progress which will be completed in 6 months augmenting the capacity by 150MLD



# Progress on STP since 2020

2254

Parameters	Status of compliance as on 30.09.2019	Current Status	Progress
No. of STPs	101	168	67
Installed Capacity in MLD	1212.32	2787.21	1574.89 (129.90%)
Utilization Capacity in MLD	711.4	1929.17	1217.77 (171.17%)
Gap in Utilization	60 %	30.78 %	29.22 %

## Reuse of Treated Water

- 1929.10 MLD of Treated water is generated in the state out of which **804.7 MLD** of Treated Water is being utilized.
- Minor Irrigation Department is preparing a programme for utilization of treated used water around Bengaluru region

Sl. No.	Implementing Agency	Quantity of Reused Treated Water (in MLD)	Purpose of Reuse of treated water
1	BWSSB	779	Rejuvenation of water bodies by filling the lakes/ tanks, horticultural usage, gas-based power generation plant, general industrial usage, non-potable usage etc.
2	KUWS&DB	3	M/s Janaki Sponge Iron Ltd. for iron and steel manufacturing .
3	KUIDFC	22.7	De-Mineralised Water for thermal power plant by MRPL and other industrial usage by Mangalore SEZ.
	<b>TOTAL</b>	<b>804.7</b>	

[Link to the Video](#)

# Progress on Compliance towards Reuse of Treated water Since 2020

2256

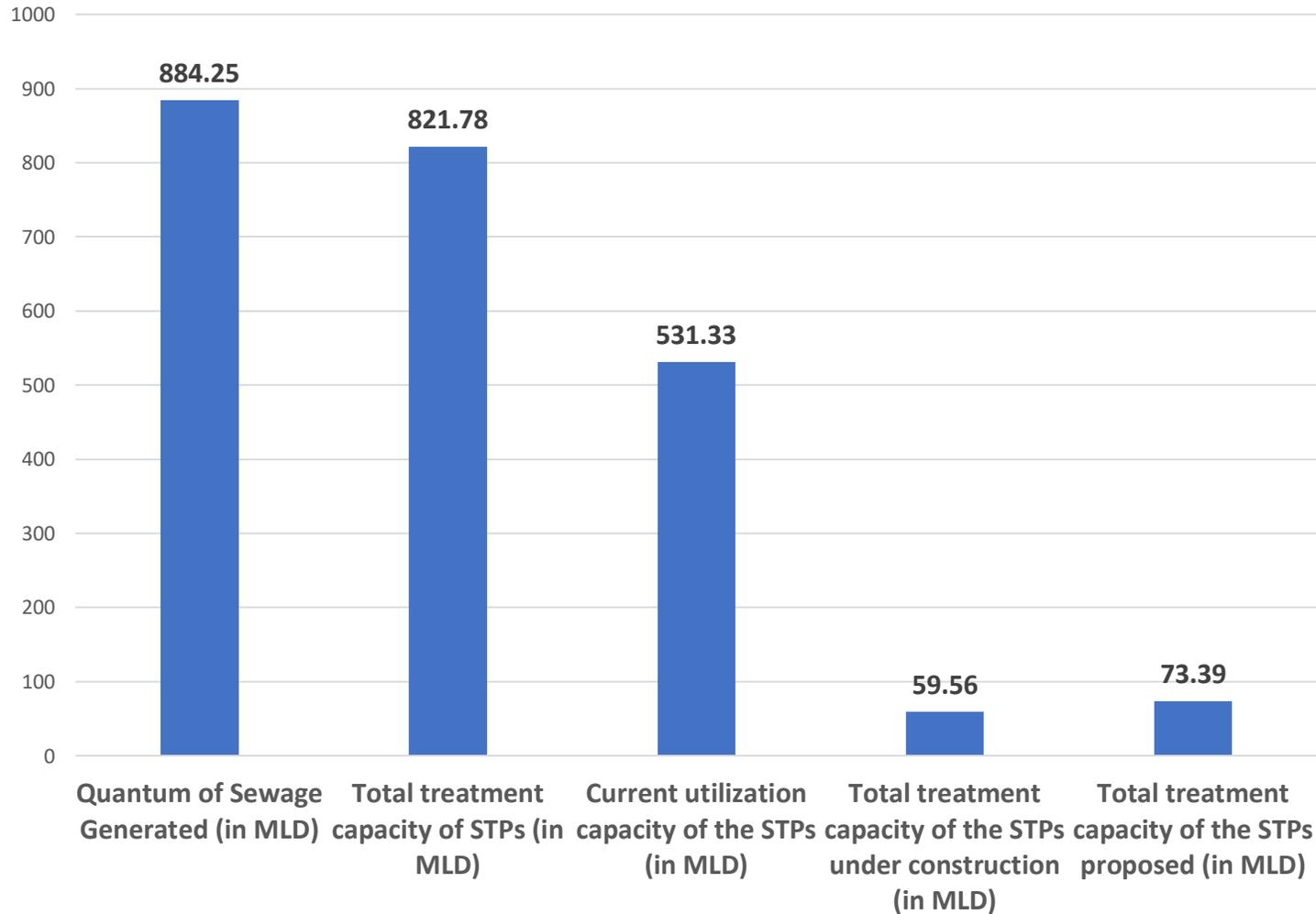


Parameters	Status of Compliance as on 30.09.2019	Current Status	Progress
STPs operational capacity in MLD	711.4	1929.10	1217.70 (171.16)
Reuse of Treated Water	253.7	804.7	551 (217.18%)

# Restoration of Water Quality of Polluted River Stretches

2257

Status of Sewage Treatment Plant in 17 PRS



- Total of 55 STPs are planned for implementation with accumulated treatment capacity of 133.35 MLD
- 19 STPs with a cumulative treatment capacity of 59.56 MLD are under construction in the 17 PRS.
- In addition, 36 STPs are proposed with cumulative treatment capacity of 73.39 MLD in the 17 PRS
- Out of 36 STPs, Work has been awarded for 21 Nos of STPs and work is yet to be entrusted for 2 Nos of STPs
- 13 STPs are in DPR Preparation with a treatment capacity of 45.92 MLD
- Interception & Diversion works are included in the implementation of above STPs

## Compliance to Rejuvenation of Water Bodies

- Under AMRUT 2.0 scheme, Rs. 540 Cr has been earmarked for rejuvenation of water bodies.
- 350 MLD of Secondary Treated Water from K&C Valley is being supplied at free of cost to Minor Irrigation Department for filling the 126 lakes/tanks of Kolar District for ground water recharge and lake rejuvenation from 2018.
- 60 MLD of Secondary Treated Water from K & C Valley is being supplied at free of cost to Minor Irrigation Department for filling the 67 lakes/tanks of Anekal Taluk, Bangalore Rural District for ground water recharge and lakes rejuvenation from 2021.
- 150 MLD of Secondary Treated Water from Hebbal Valley is being supplied at free of cost to Minor Irrigation Department for filling the 65 lakes/tanks of Chikkaballapur District for ground water recharge and lakes rejuvenation from 2020.



2259

# Solid Waste Generation & Management - State Profile (Urban & Rural)

## 1. Generation Vs Collection



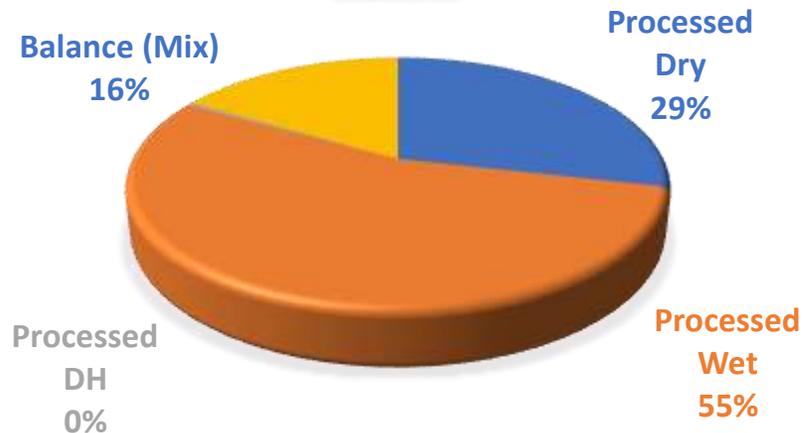
Category	Last Affidavit 2020	Current Generation TPD
Generated	13685	15334
Collected	10298	15173
Not Collected	3387	161

## 2. Segregated Vs Mixed



Category	Last Affidavit 2020	Current Generation TPD
Collected	10298	15173
Segregated	6186 (60%)	10957 (72%)
Mixed	4112 (40%)	4216 (28%)

## 3. Processing Vs Balance (Mix)



Category	Last Affidavit 2020	Current Generation TPD
Segregated	6186	10957
Processed Dry	1315	3129
Processed Wet	3400	5972
Processed DH	-	52
Processed %	76%	84%



# Solid Waste Generation & Management - State Urban Profile

2260

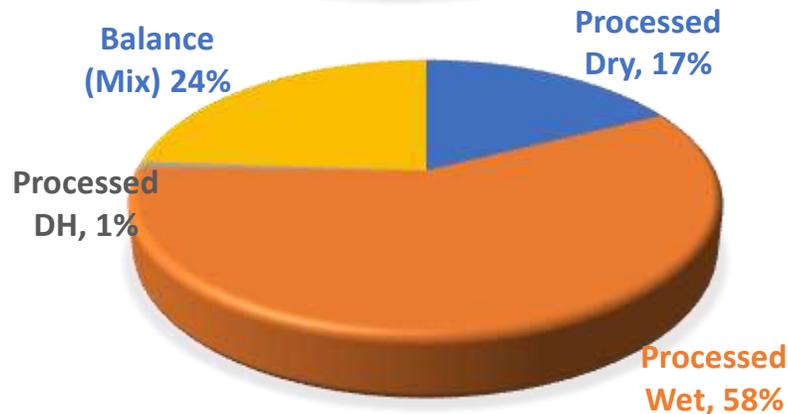
## 1. Generation Vs Collection



## 2. Segregated Vs Mixed



## 3. Processing Vs Balance (Mix)



Category	Last Affidavit 2020	Current Generation TPD
Total Waste Generated	11085	11784
Total Waste Collected	10198	11761
Not Collected	887	23

Category	Last Affidavit 2020	Current Generation TPD
Collected	10198	11761
Segregated	6086 (60%)	7545 (64%)
Mixed	4112	4216

Category	Last Affidavit 2020	Current Generation TPD
Segregated	6086	7545
Processed Dry	1295	1319
Processed Wet	3360	4370
Processed DH	-	52
Processed %	75%	75%

## Efforts taken by the Government towards effective segregation at source

BBMP



Deployment of 214 Inspectors, 362 ward Marshals and 18 Marshal Supervisors in BBMP for improved segregation



Strict enforcement of SWM Rules-2016 & SWM Bye-Laws through regular patrolling by Marshals and imposition of penalty for the violation. Rs.9.10 Crores (10.09.2019 to 05.09.2022) imposed on violators.



Department of Religious & Endowment has issued an order mandating source segregation and recycling of flower waste, ban on use of SUPs.

313 ULBs



Intensive IEC has been carried out by ULBs in order to improve the level of segregation



The State Government has notified "The Solid Waste Management Model Bye Laws for both City Corporations and Municipalities vide Government Order No. UDD 90 CSS 2018, Bengaluru, Date: 9.10.2019.



Strict enforcement of segregation of waste and a penalty for the 10913 nos. of violation is registered to an amount of Rs.0.10 crores in this current year

## Successful Case Studies on Segregation of Waste in sample ULBs

Achievement of 100% source segregation into three streams- Dry Waste, Wet Waste, Sanitary Waste in Udupi City Municipal Council.



Achievement of 100% source segregation into three streams- Dry Waste, Wet Waste, Domestic Hazardous Waste in Ullal City Municipal Council



Achievement of 100% source segregation into three streams- Dry Waste, Wet Waste, Domestic Hazardous Waste in Karwar City Municipal Council



# Segregation Initiatives across Karnataka <sup>2263</sup>



# Segregation Initiatives BBMP

2264



## Efforts taken by the Government towards processing of waste

BBMP



- Construction of **1000 TPD** capacity **Waste to Energy** plant which generates **11.5 MW** is under completion stage in BBMP and is expected to be operational by **March 2023**
- Two Bio-CNG Plants have been approved and under agreement stage and expected to be operational by **Dec 2024**



- Construction of **4 numbers of 5 TPD** capacities & one plant of **50 TPD** capacity plants is under progress, expected to be operational by **July 2023 and March 2024, respectively**. Also, upgradation of **7 defunct plants** is under process.



- The BBMP has **119 (MRF) Material Recovery Facilities/Dry Waste Collection Centres** and construction of further **30 MRFs/DWCCs** is under progress, to be operational by **June 2023**
- A circular vide reference no. :CC/PSR//PR/G-4471/2021-22,dated:11.02.2022 has been issued to ensure In-Situ. Also, Gazette Notification vide no.: BBMP/JC(SWM) /PRF /366/2022-JC-SWM/20808, is issued to mandate bulk waste generators to undertake In-Situ composting as per provisions of SWM Rules-2016

313 ULBs



- Under SBM 1.0, 218 ULBs have prepared the DPR to establish 7132 TPD of solid waste with the project cost of 1159 Cr, and approved by SLTC and HPC
- Under SBM 2.0, SWM Action plan has been prepared for a total of 2046 crores for establishment of SWM Infrastructure in all 313 ULBs and BBMP

# Processing Facilities in Karnataka

2266



PolyHouse -- Used for Wet waste processing using BSF Larvae



# Legacy Waste Management

2267



Old Dumpsites  
(Nos)

196

Quantity  
(Lakh Tonnes)

179.97

Remediated as on date  
(Lakh Tonnes)

1.38

## Action Taken



**93 ULBs including BBMP (5 Sites)** have already completed DPRs for legacy waste management and are various stages of approval  
**(155.39 Lakh Tonnes)**



**50 ULBs including BBMP (5 sites)** have DPR approved from the technical committee  
**(126.61 Lakh Tonnes)**



**34 ULBs** have already invited tender  
**(18.34 Lakh Tonnes)**



**19 ULBs** have issued work order  
**(12.21 Lakhs)**

## Success Story

- Work has been initiated in **Mangalore** for 9 Lakh MT of waste and already cleared 29,000 MT of legacy waste
- Work in progress in **Tumkur** where 19,000 MTs of waste is already cleared and 0.5 acre of land is reclaimed
- Work in progress in **Shimoga** where 16,000 MTs of waste is already cleared
- Work in progress in **Bijapur** where 74,000 MTs of waste is already cleared and 13 acres of land is already reclaimed
- **1.38 Lakhs MT** of legacy waste is remediated

## Timelines

**Timeline for Filling the Gaps:**

**126.61 Lakh Tonnes to be completed by Dec 2023**

# Legacy Waste Management Initiatives across Karnataka

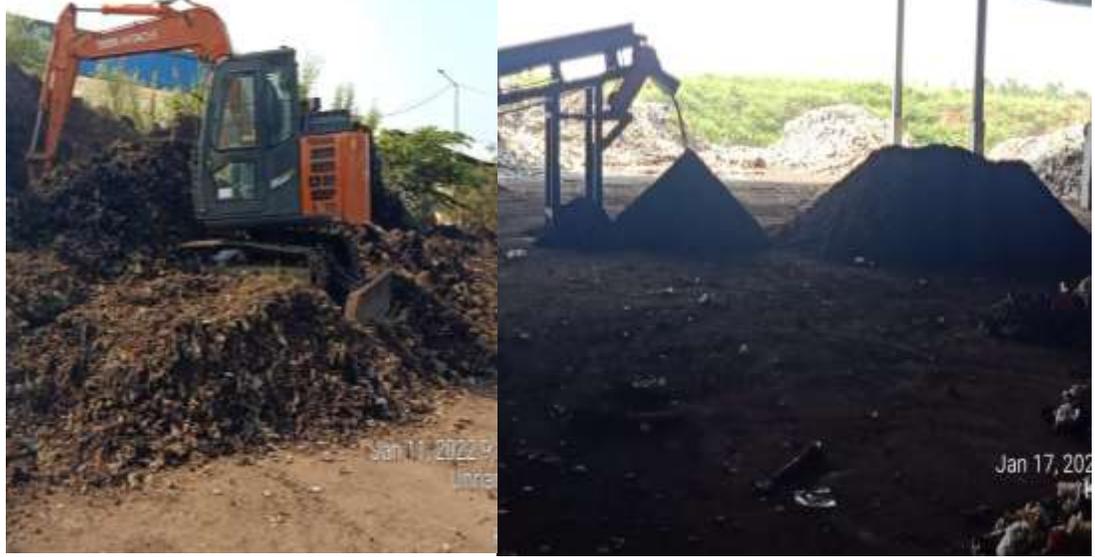
## Legacy Waste Management in Tumkur



## Legacy Waste Management in Mangalore



## Legacy Waste Management in Shimoga



May 27, 2022 12:12:57  
Anupinakatte Road  
Shivamogga  
Shimoga

# Efforts taken by the Government for Legacy Waste Management 2269



The State Government has constituted State Level Technical Advisory Committee to verify the bioremediation DPRs of the ULBs.



All Deputy Commissioners and ULBs vide circular no: DMA/ SWMR/11/2020, Dated 18-12-2021 to obtain approval for bioremediation projects up to Rs 5 crore. District level technical committee have approved 40 DPRs on legacy waste management till date.



One day State Level workshop was conducted on 26<sup>th</sup> of July for Legacy waste management.

Division	Dates	Stakeholders
Bangalore	4 <sup>th</sup> Week Oct 2022	Elected Representatives
Mysore	1 <sup>st</sup> Week of Nov 2022	ULB
Kalburgi	2 <sup>nd</sup> Week of Nov 2022	Commissioners/ Chief Officers
Belgaum	3 <sup>rd</sup> week of Nov 2022	Environmental Engineers



# Method Adopted for Plastic Waste Utilization/Disposal



# 17,715

**Tonnes of Plastic being sent for co-processing and recycling**

The State of Karnataka has collected 17,715 tonnes of plastic waste from April 2022 to Aug 2022 out of which approximately 5363 tonnes of non-recyclable plastic was sent to Cement Plants for Co-Processing.



A fine of 1.64 Crores is levied and collected from defaulters as Plastic fines.



Arrangements are being made to send the remaining plastic waste to nearby Cement Plants through KSPCB.



All ULBs to tie up with nearby Cement Plants for disposal of RDF



Kempegowda International Airport Ltd has used plastic waste for laying of roads . This was supplied by the ULBs.





# Progress on Model Cities/Towns as per submission made to Hon' NGT

2271



	Door to Door Collection		Segregation		Processing	
	Feb 2020	Oct 2022	Feb 2020	Oct 2022	Feb 2020	Oct 2022
Mysore	100%	100%	100%	100%	55.3%	77% ↑
Mangalore	100%	100%	41.7%	75% ↑	78.5%	78.5%
Belagavi	100%	100%	55.17%	70% ↑	100%	100%
Karwar	100%	100%	100%	100%	100%	100%
Hunsur	100%	100%	32.6%	90% ↑	92.6%	93% ↑
Ullal	100%	100%	90.32%	100% ↑	34.8%	63% ↑

42 ULBs under Polluted River Stretch shall be made as Model Towns

# Awards for Karnataka on Solid Waste Management & Sanitation



## Urban Awards on Sanitation & SWM



## Grameen Awards on Sanitation & SWM





# 30

Out of **31** Districts have prepared DEP

## Overview of Progress

**As per the NGT OA No 360/2018, dated 26.09.2019,**

district environment plans (dep) are being prepared. Dep in respect of 31 districts have been prepared

**In model SWM Bye Laws, hefty fines are being imposed on burning of Waste as per the orders of Hon' NGT**

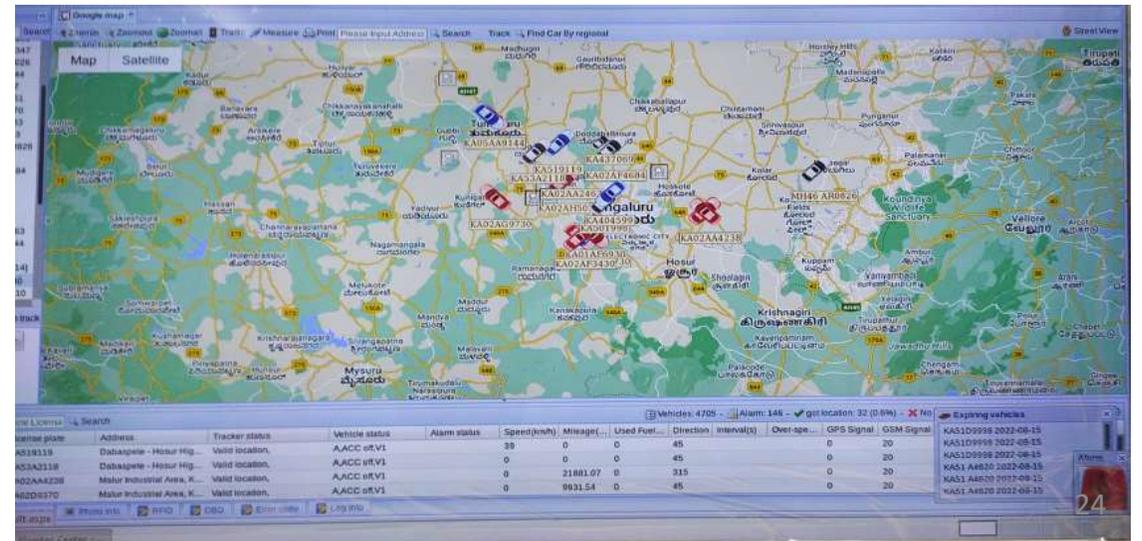
# Initiatives taken under Industrial Pollution Control 2274



Public complaints redressal through Integrated Control Command Centre (ICCC)

Rapid response vehicle with Marshals to check illegal dumping of the waste

Conducting capacity building for the unemployed youths on STP operation and maintenance

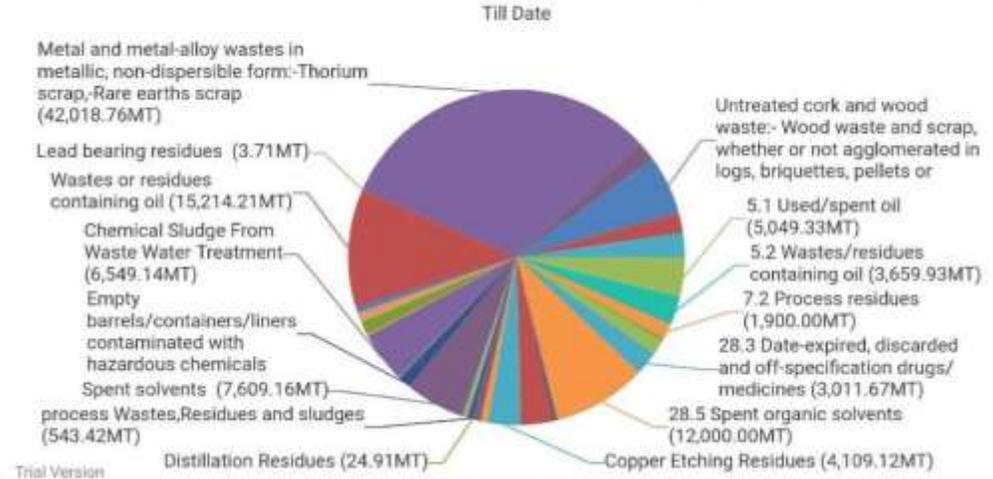


# Initiatives taken under Industrial Pollution Control 2025

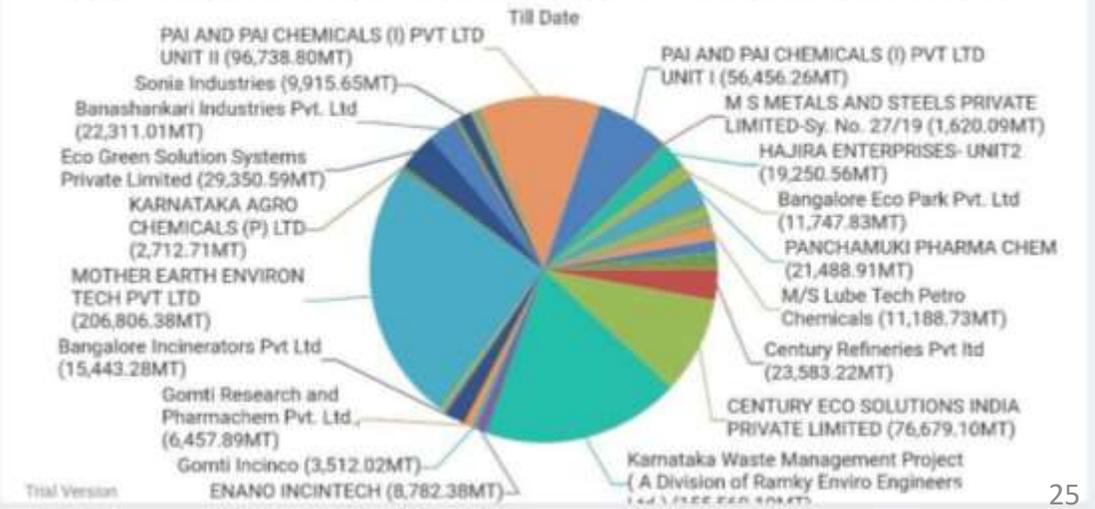


Introduced E-manifest- a cradle-to-grave approach for effective tracking of waste transport. Waste transport vehicles are fitted with GPS tracking system by the board

## Waste Generated By Category



## Quantity of Waste Received at Waste Facilitator



# Initiatives taken under Industrial Pollution Control 2276



Honoured with two Guinness World Record for carrying out mass awareness

