

# **Government of Rajasthan**

**Presentation regarding Compliance of**

**Hon'ble NGT directions in O.A. No.**

**606/2018**

**SOLID WASTE MANAGEMENT  
in Rajasthan**

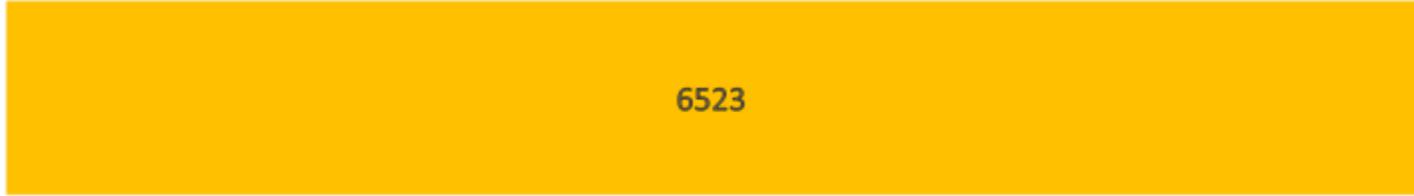
## Directions of Hon'ble NGT Dated 31/05/22

*“It is necessary that Chief Secretaries continue the monitoring and interact with this Tribunal periodically by video conferencing. Accordingly, personal appearance of the Chief Secretaries, by Video Conferencing, with the status of compliance in respect of each of the States/UTs on the subject of Solid Waste Management and Sewage Management. The data to be furnished should cover all categories of areas in the State – big cities, towns and villages.”*

# Management of Solid Waste in Urban Areas

# Solid Waste Management in Urban Area

**Total MSW generation(TPD)**



**Waste Processing (TPD)**



54.18%

**Waste Processing Facilities under progress (TPD)**



28.82%

Dec.2023

**GAP (TPD)**  
*Covered in SBM 2.0*



17%

Dec.2024

➤ Out of 196 ULB's Total 122 ULB's are covered with processing. Rest 74 ULB's are being covered under SBM 2.0

## Comparison of Year Wise Progress w.r.t NGT in 2020

	<b>Progress as on Jan 2020</b>	<b>Progress as on Aug 2022</b>	<b>Future Plan</b>
<b>Solid Waste Management Bye Laws – 2019</b>	<b>No Bye-Laws</b>	<b>Prepared &amp; Being Implemented</b>	<b>Prepared &amp; Being Implemented</b>
<b>Action Plan</b>	<b>Not prepared</b>	<b>Prepared &amp; Being Implemented</b>	<b>Prepared &amp; Being Implemented</b>
<b>Total wards</b>	<b>5389</b>	<b>7500</b>	<b>-</b>
<b>Door to door Collection in wards</b>	<b>100%</b>	<b>100%</b>	<b>-</b>
<b>Segregation in Wards</b>	<b>55%</b>	<b>72%</b>	<b>100% by March 2023</b>
<b>Waste Processing</b>	<b>1113TPD (17.2%)</b>	<b>3534 TPD(54.18%)</b>	<b>(100%) by Dec. 2024</b>
<b>Operational MRF</b>	<b>28</b>	<b>122</b>	<b>170 by Dec. 2022</b>
<b>Legacy Waste Remediation (Completed/ Work Under Process/Under Tendering)</b>	<b>0</b>	<b>65.02(73.88%) Lakh Cum out of 88 Lac Cum</b>	<b>100% by Dec. 2023</b>

# Glimpse of Door to Door Collection

1360



Door to door collection Jaipur



Segregated collection Udaipur



Domestic Hazardous waste collection Dungarpur



# Glimpse of Composting

1361

## Composting



Barmer

Lakheri

## Composting machines installed by BWGs



Jaipur

Itawa



KOTA



KOTA

# Glimpse of Material Recovery Facility

1362



Ratangarh



Jhalrapatan



Bhilwara



Jhalrapatan

# Glimpse of Material Recovery Facility



Alwar



Dungarpur



Nokha



Pratapgarh

# Transfer Station

1364



Kota South



Kota North



Udaipur



Udaipur

# Few Best Practices

# DLB Jaipur: Zero Waste Project

1366



- **Pit Composting:** for the wet waste from cafeteria and uneaten food with optimum use of water, bio culture and energy, commercially available microbial strains to provide **odour free** ambience.
- **Recycling facility** for dry (non-biodegradable) waste component.
- Indigenously developed **Shredder** and **Gasifier** to generate electricity from non recyclable fraction and revenue from recyclable fractions.
- **Success Story:** The Zero Waste Project is also considered to be implement in Offices, Training Institutes, Universities etc. (BWGs), of entire State of Rajasthan as a decentralized solid waste management at source.

# Waste Management in UDAIPUR

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BIO GAS PLANT



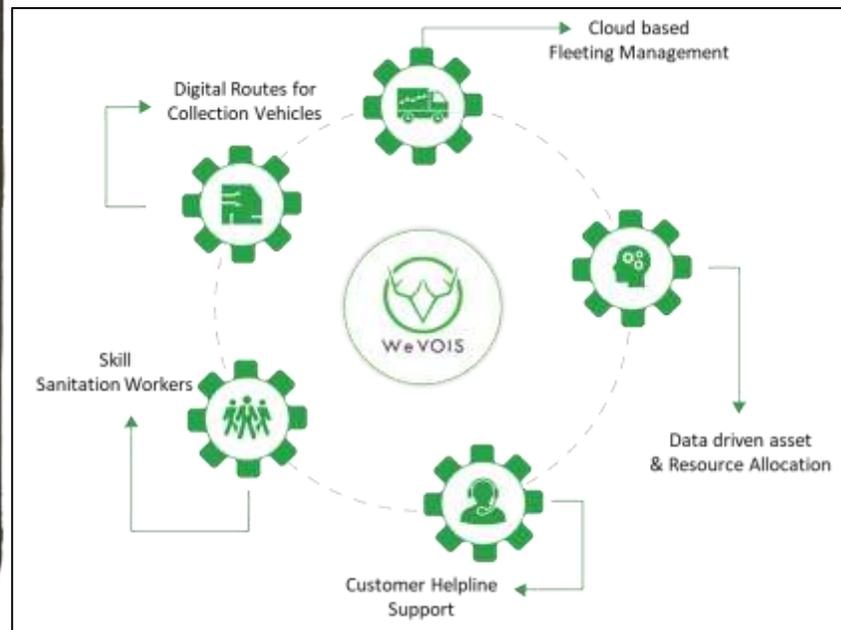
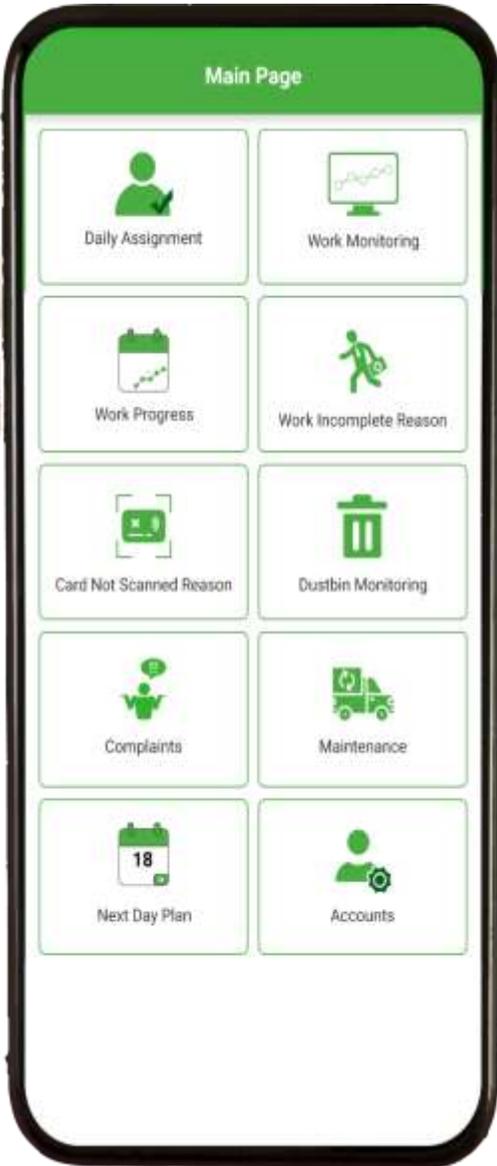
Bio Mining of Legacy wastes



C&D WASTE

# ICT Based Solution - SIKAR Model

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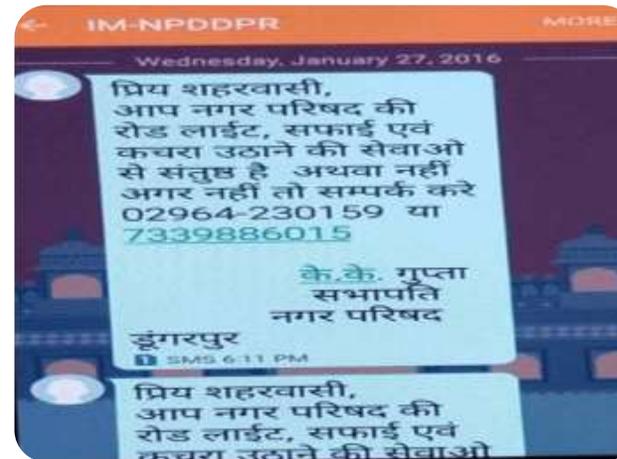


- IoT based tool 'Sikar Model' specifically for city solid waste management-since from April 2019.
- It offers wide varieties of IT tools such as
  - **Real time monitoring**
  - **Web Portal to manage different task**
  - **Citizen App**
  - **Driver and Helper App**
  - **Engineers App**

# Innovations in Dungarpur

1369

- Roti Compartment in Door to Door Waste Collection Vehicle.
- Citizen Grievance
- Cloth bank -100 Women are being Employed.
- Unnati Silai Centre
- Vermi Composting-
- Waste to Art
- Home Composting



# “Waste to Art” Selfie Points in Dungarpur

1370



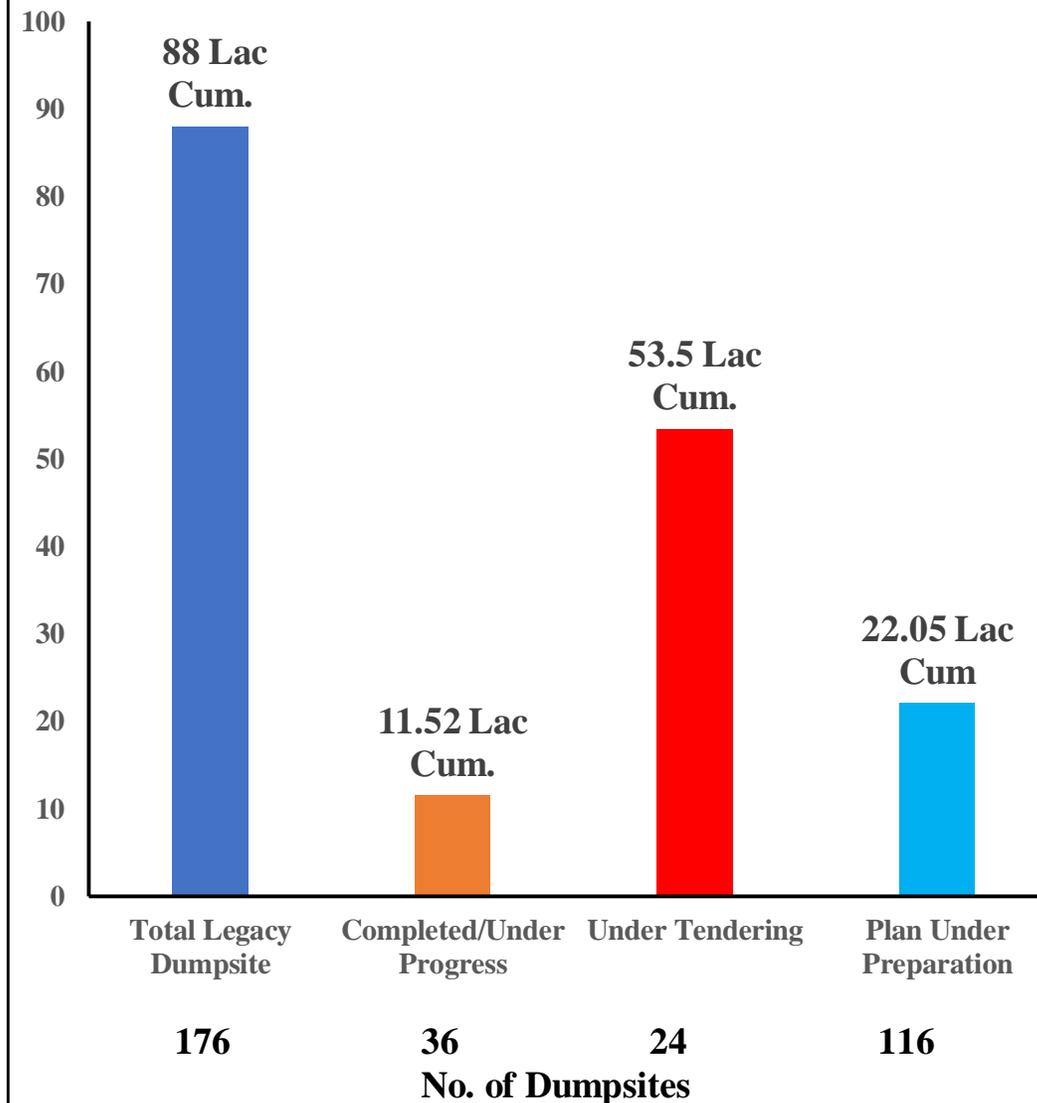
# Management of Legacy Waste

# Legacy Waste Remediation Status

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- ✓ Total identified Dumpsite having legacy waste are 176 ULBs (88 Lac Cum)
- ✓ Work completed at 15 ULBs , (2.62 Lac Cum.)
- ✓ Work in progress at 21 ULBs, (8.9 Lac Cum.)
- ✓ Tender has been received on 07.09.2022 & is under evaluation for 24 cities (53.5 Lac Cum.)
- ✓ 116 ULBs action plans prepared and are being implemented under SBM 2.0. (22.05Lac Cum)
- ✓ Timeline for the completion of remediation work all ULBs – Dec, 2023

[Legacy Waste Remediation ULBs List](#)



# Legacy Waste Remediation at Bharatpur

**BEFORE**



**AFTER**



# Solid Waste Management: Legacy Waste Remediation Bharatpur

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## Video



# Management of Liquid Waste

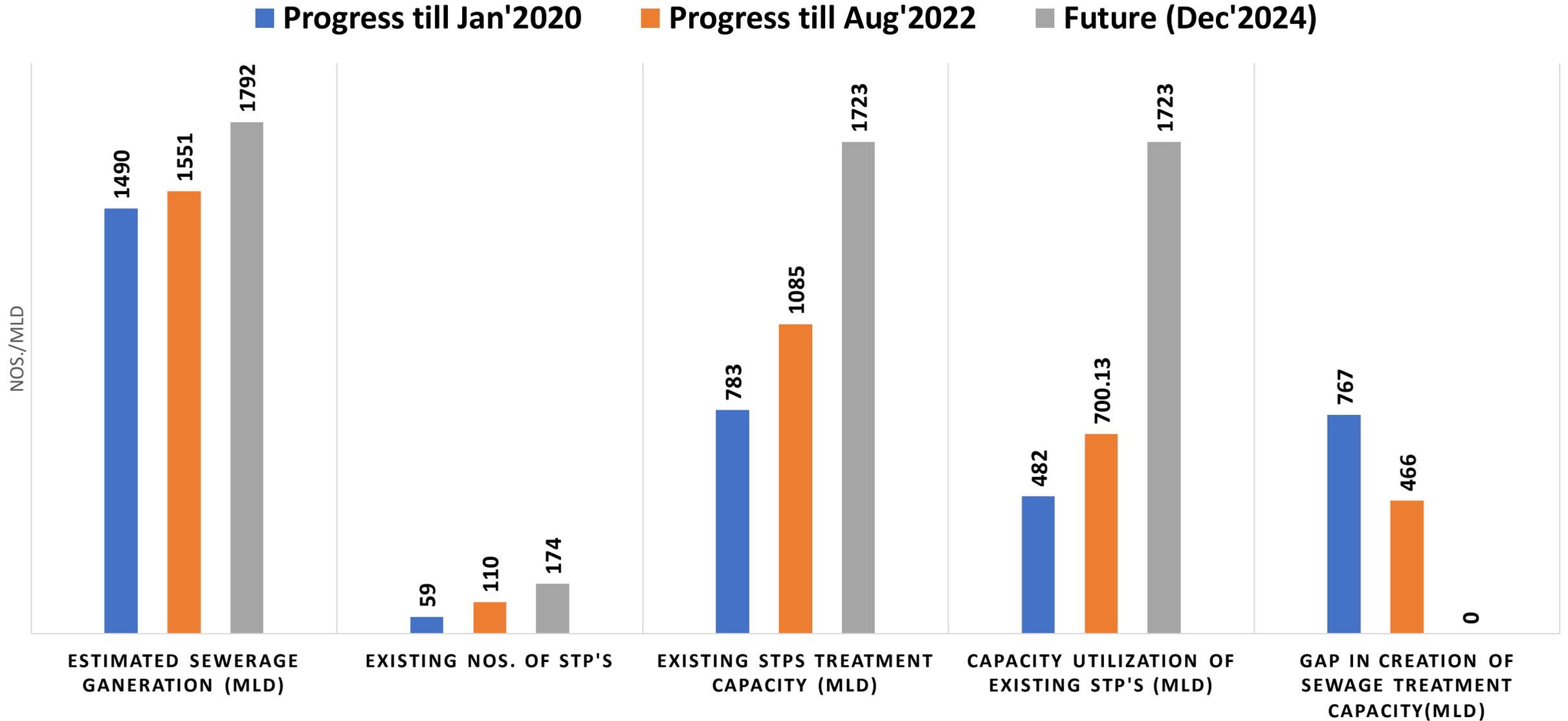
# Management of Liquid Waste

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S. No.	Particular	Progress Till Jan 2020	Progress Till Aug 2022	Future (Dec'2024)
1.	Towns/ Cities covered under Sewerage	55	68	68
2.	Estimated Sewerage Generation (MLD)	1490	1551	1792
3.	Existing no. of STPs	59	110	174
4.	Existing STPs Treatment Capacity (MLD)	783	1085	1723
4(a)	Capacity Utilization of existing STPs (MLD)	482	700	1625
4(b).	Gap in Utilization of Existing Treatment Capacity (MLD)	302	385	98
5.	Gap in Creation of Sewage Treatment capacity(MLD)	767	466	Nil
6.	No. of Under Construction STPs	80	64	Nil
7.	Under Construction STPs Treatment Capacity (MLD)	570	638	2.0*
8.	Timeline for Completion of STPs			<b>Dec' 2024</b>

- \*Work of One STP of 2 MLD at Khanpur, Bhiwadi is withheld due to stay by Hon'ble High Court.
- The gap in creation of sewage treatment capacity will be nil as the capacity of ongoing 64 STPs and FSSM/FSTPs is about 725 MLD.

# Liquid Waste Management in Rajasthan



# Utilization of Treated Waste Water

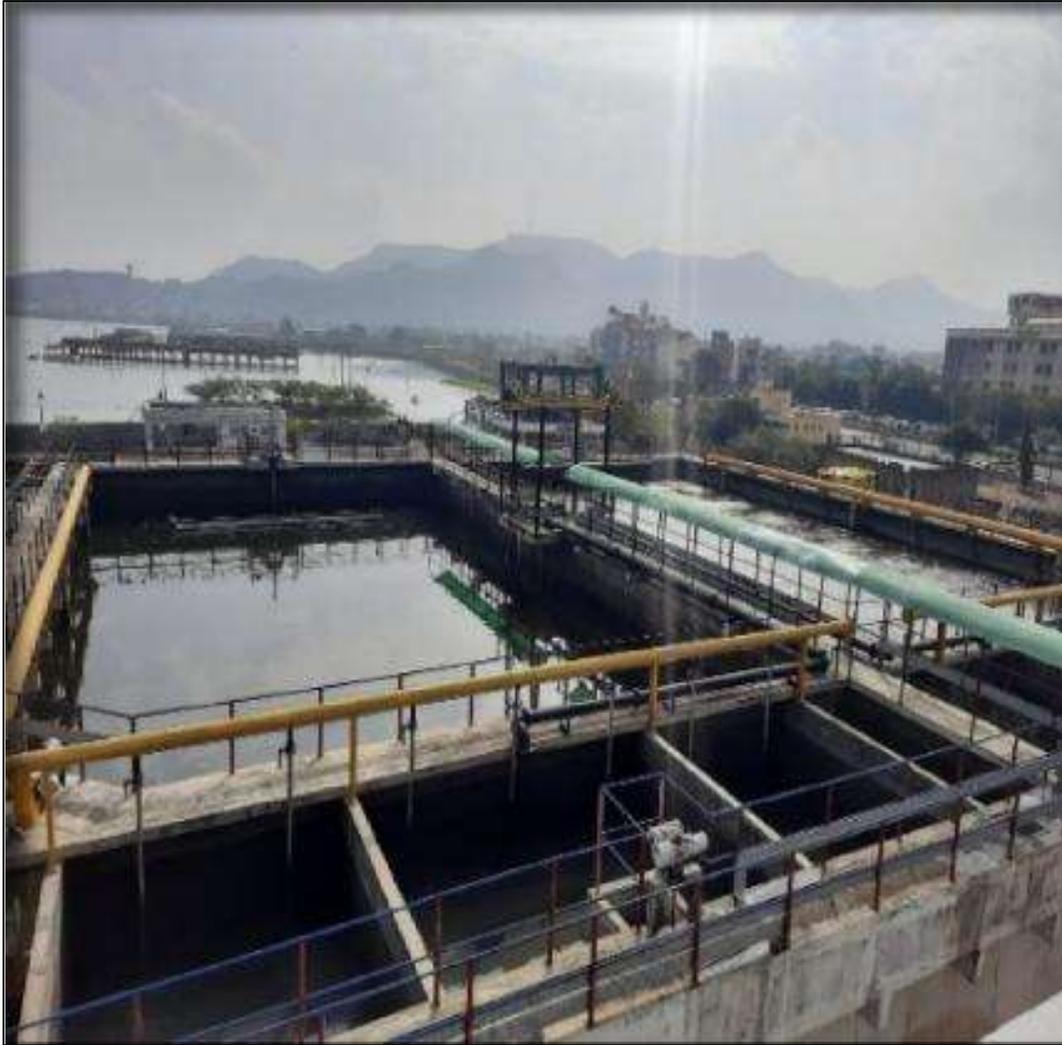
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- Some of the ULBs has initiated the process i.e. Udaipur, Pali, Bhilwara, Chittorgarh, Jodhpur, Sikar, Jaipur etc. The details are as below:

Place	Capacity of reuse of TWW(MLD)	Reuse of Treated Waste Water
Udaipur	45 MLD	Industry: Treated water is being used by <b>Hindustan zinc limited</b> as per MoU.
Bhilwara	10 MLD	Mines Industry: Treated water is being used by <b>Jindal Saw limited</b> as per MoU.
Chittorgarh	05 MLD	Treated water is being used by <b>Hindustan Zinc Limited</b> as per MoU.
Jaipur	85 MLD	<b>62.5 MLD</b> Treated water is being used for Agriculture use; <b>22.5 MLD</b> treated water is being used by Mahindra World City and <b>4.9 MLD</b> treated waste water is being used for Horticulture.
Sikar	07 MLD	Industry : <b>UCIL (Uranium Corporation of India Limited)</b> is using the water for Industrial use as per the MoU
Jodhpur	85 MLD	Treated water is being used for the agriculture water
Pali	15 MLD	Industrial use: Various industrial Units (200 Units).
Nawalgarh	5 MLD	Reuse in Cement Plant
<b>Beawer</b>	7 MLD	Reuse in Cement Plant

# Glimpse of STPs

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**13 MLD STP at Ajmer**



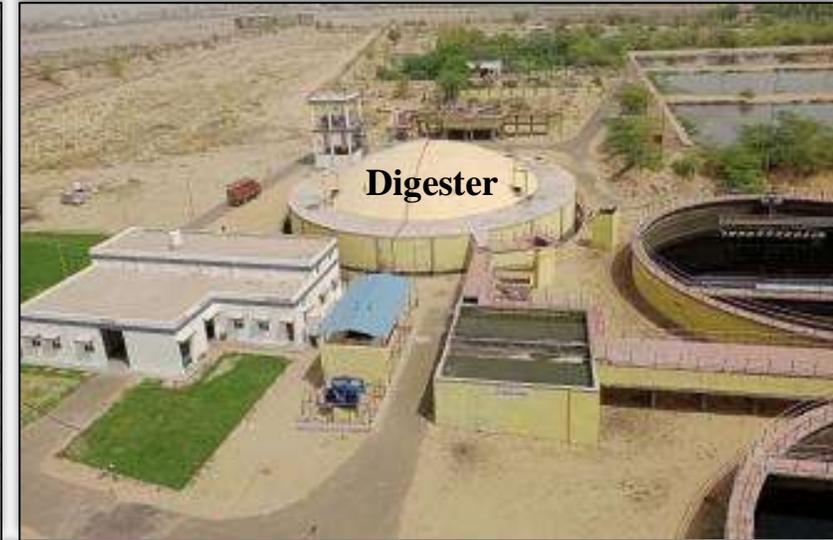
**20 MLD STP at Ajmer**

# Glimpse of STPs

1380



**20 MLD STP at Bundi**



**40 MLD STP at Bikaner**

- Digester has been inserted between Primary Treatment Units and SBR which has resulted in decreasing load on SBR units finally less power consumption.

# Management of Solid Waste in Rural Areas

# Solid and Liquid Waste Management in the Rural Sector 1382

- SBM (G) Phase -I implementation period was from year 2014-2019.
- SBM (G) Phase II will be completed in 2024-25.
- Phase II focuses on Solid, Liquid and Plastic waste management.



**IHHL**

**82,65,660**



**CSC**

**22750**



**EXPENDITURE  
DONE**

**7631.14 Cr.**

# Major Components of Rural Sanitation

1383

Individual Household Latrines (IHHL)

Community Sanitary Complex (CSC)

Solid Waste Management (SWM)

Liquid Waste Management (LWM)

Plastic Waste Management (PWM)

GOBAR-Dhan

Faecal Sludge Management (FSM)

# As per AIP target of FY22-23, 14159 villages to become ODF plus this year

2020



Till date

0 Villages with SLWM activities

5445 Villages with SLWM activities



Works initiated in 11,000 villages



Verification and regular inspection of ODF plus villages



IEC and Capacity Building Statewide



Priority to Bigger villages. Model Plan and focus on the religious/tourists places



Aggressive convergence different schemes and b/w communities

# Achievements of Rural Sanitation under the SBM -G

1385

S. No.	Components	Progress
1	IHHLs	82,65,660
2	CSCs	22,750
3	Number of soak pits constructed	39381 ( Magic pits , Leach pits)
	Waste Collection and segregation Sheds	511
	Community Compost pit	2231
	Drainage Channels	4011 km
4	Village covered with SWM arrangements	1505
5	Village covered with LWM arrangements	5304
6	Door-to-door collection has been started	650 villages.
7	Plastic Waste Management Units -No. of Blocks	<ul style="list-style-type: none"> <li>At Kelwara, Rajsamand and one at Khairwara, Udiapur under operation</li> <li>Construction started in 2 districts Karauli, Mahaveer ji and at Ramdevra , Jaisalmer)</li> </ul>
8	GOBAR-dhan Projects	<ul style="list-style-type: none"> <li>5 districts, Bikaner, Jaipur, Bhilwara, Karauli and Tonk districts have been selected for pilot of Individual GOBAR-dhan Project</li> </ul>
9	Faecal Sludge Management (FSM)	<ul style="list-style-type: none"> <li>A joint advisory letter along with draft MoU between ULBs and GPs has been submitted for co-Treatment of faecal sludge at 3 existing FSTPs of Rajasthan located at Lalsot (20KLD), Khandela (10KLD) and Phulera (20KLD).</li> </ul>

# Initiative taken by the State

1386

## Light House Initiative

- ⑩ Integrated waste management complex (NADEP, RRC and PWMU) launched.
- ⑩ 26 Tourist/ Mostly religious places are taken as the pilot for end to end SLWM activities.

## Model plan for Village having population of 2000

- ⑩ Guidelines for Prioritizing larger villages having population of 2000 prepared.
- ⑩ Model plan for faster implementation.
- ⑩ Training of CEOs/BDOs/Program Coordinators.

## Corporate Social Responsibilities

- ⑩ CSR Conclave to accelerate SBM(G) progress with support of corporate.

## Faecal Sludge Management (FSM)

- Proposal submission to Department of Drinking Water and Sanitation (DDWS), GOI to get fund from Swachh Bharat Kosh (SBK) for different innovative. Technologies for Black Water, Grey Water and FSM with total amount of Rs. 75,37,89,599.
- FSM convergence/Co-treatment at Lalsot (20KLD), Khandela (10KLD) and Phulera (20KLD).

## Waste to Wealth

- Pilot of Individual GOBAR-dhan Projects in 5 districts Bikaner, Jaipur, Bhilwara, Karauli and Tonk districts proposed.
- Slurry and fuel requirement to be catered from the GOBAR-dhan.

# Few Best Practices

# Community Compost pit, Community Soak pit and RRC Centre <sup>1388</sup>



RRC at Kishangarh, Ajmer



RRC at Kelwara, Rajsamand



Magic pit at Sherpur, S.Madhampur



NADEP at Judawal, S.Madhampur



NADEP at Khanipura, Jaipur

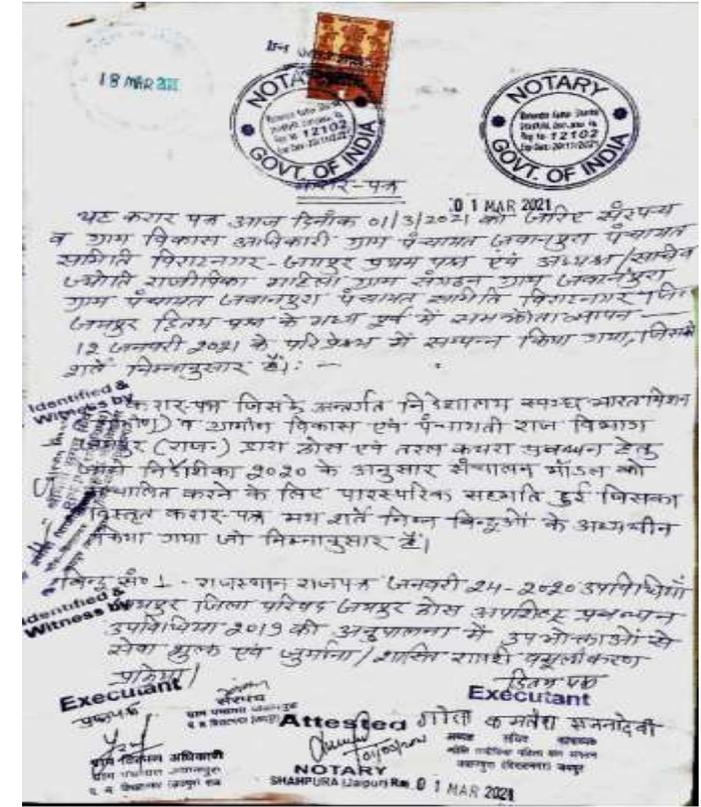


Magic pit at Jhalawar

# Jawanpura SHG Model

- Jawanpura village falls under Viratnagar Block, Jaipur District.
- Jawanpura is SHG (Self Help Group) Model.
- Gram Panchyat has given contract to Jyoti Rajeevika group to regularly monitor and maintain SBM-G Activities in village.

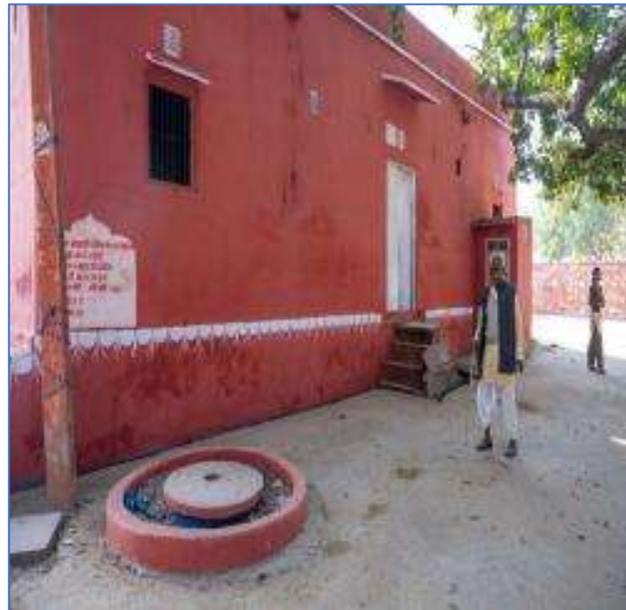
[Documentary of Jawanpura](#)



# Jahota – User Fee and Community Model

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- Jahota village falls under Jaalsoo Block, Jaipur District.
- Jahota is **first ODF Plus Village of Rajasthan.**
- Jahota works on **user fee and Community Model.**
- User fee is regularly being collected by Gram Panchayat which makes this model successful and sustainable.



[Documentary of Jahota](#)

# Kelwara NGO Model

1391

- Kelwara Village fall under Kumbhalgarh block, Rajsamad district.
- Gram Panchayat has done contract with Seva Mandir for Plastic Waste Management in Kelwara Village.
- Seva mandir regularly monitor and carry out various IEC activities to make this model successful and sustainable.



[Documentary of Kelwara](#)

Thank You