

Solid Waste Management and Sewage Management

(NGT Matter O.A. No. 606/2018)



Government of Uttarakhand

Solid Waste generation in Urban areas and it's Management

Details	Number	Remark
Total number of ULBs	92 + 10 (created newly) = 102	10 ULBs have been created within last 2 years.
ULBs having population more than 0.5 million	1 (Dehradun)	
ULBs having population less than 0.5 million	91 + 10 = 101	
Total number of wards	1152 + 90 = 1242	92 Old ULBs are having 1152 wards. 10 new ULBs are having 90 wards.
Total number of households, shops, institutions, schools etc	8.29 Lakh in 1152 wards	Survey is yet to be conducted in newly created 10 ULBs.
Total quantity of waste generated per day	1534.10 TPD in 1152 wards	Quantification is yet to be completed in newly created 10 ULBs.
Total quantity of waste processed	1281.5 TPD (83%) in 1152 wards	<ul style="list-style-type: none"> • Biodegradable waste generated by source segregation or mechanical segregation is composted in 630 NADEP Pits . • Non-biodegradable waste generated by source segregation or mechanical segregation are compacted by using 72 compactors, 38 MRFs (Material Recover Facilities) of 230 TPD capacity and transported to plain districts (Haridwar, Dehradun and Udham Singh Nagar) for disposal.

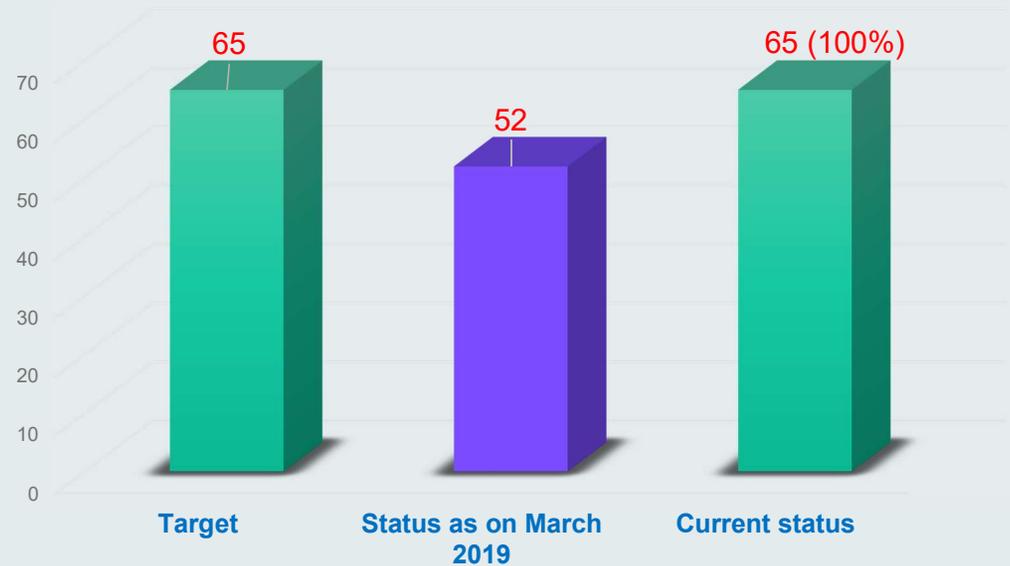
Compliance of Rule 22: of the Solid Waste Management Rules, 2016

Necessary infrastructure for implementation of rules as created by the local bodies and other concerned authorities.

Compliance of Rule 22(1)

Identification of suitable sites for setting up solid waste processing facilities:

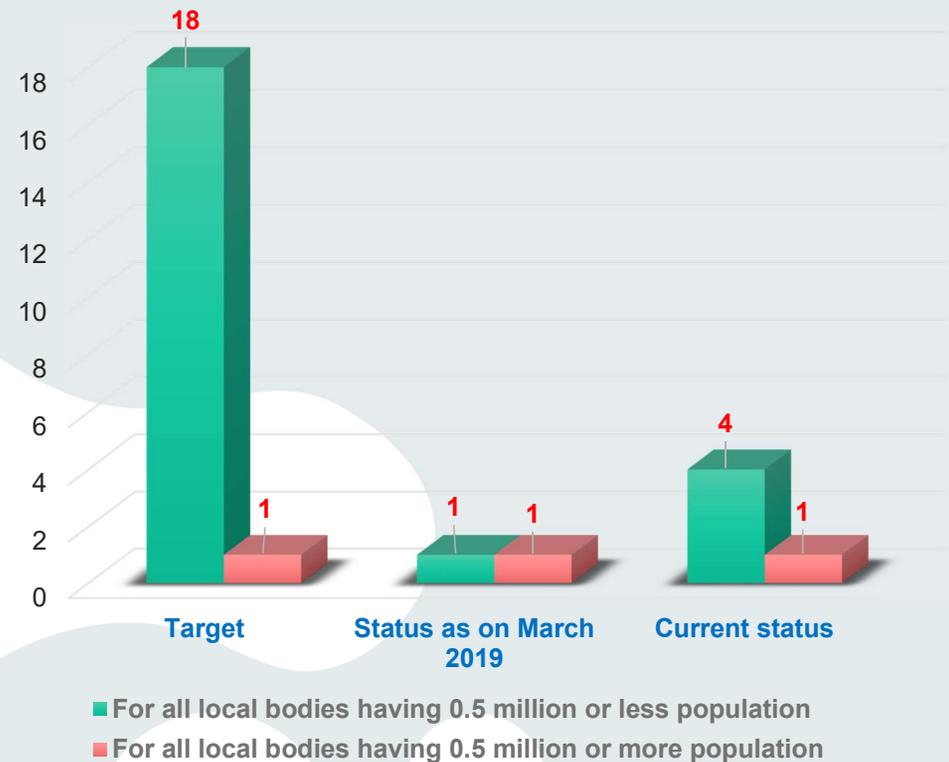
Target	Status as on March, 2019	Current status	Timeline / Remark
65 sites for 92 ULBs	52 Sites identified	All 65 sites for 92 ULBs have been identified.	Target Achieved



Compliance of Rule 22(2)

Identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities:

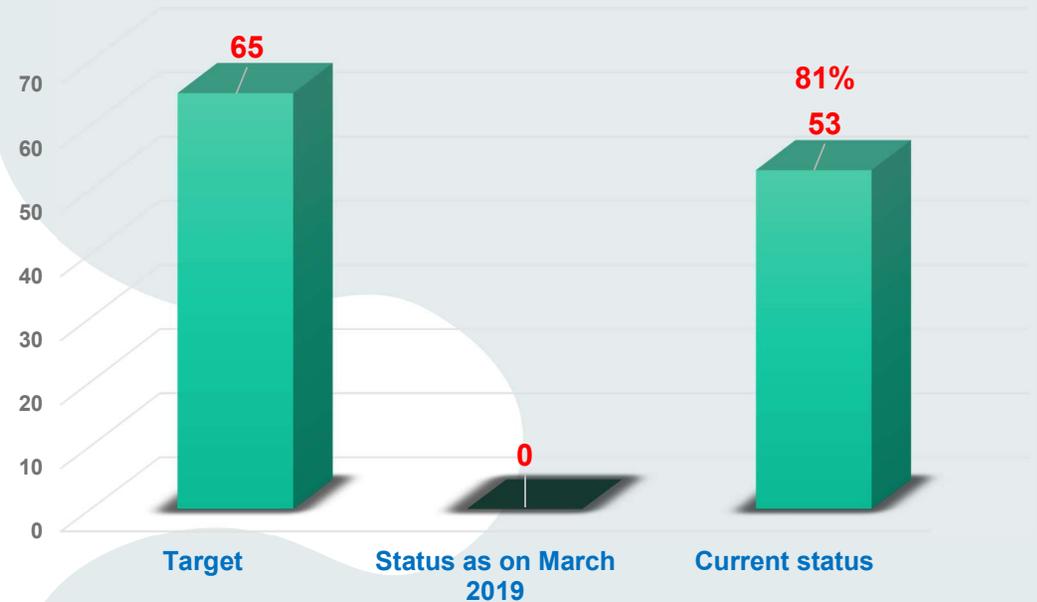
Activity	Target	Status as on March, 2019	Current status	Timeline / Remark
Under 0.5 million population.	18 (8 in cluster and 10 stand-alone)	01 (Haridwar)	04 completed (Haridwar, Kirti Nagar, Dwarahat and Badrinath)	DPRs of remaining 14 sites have been approved by MOHUA and at various stages of execution. (Enclosure)
Population of 0.5 million or more.	01	01	01	Integrated waste management facility along with sanitary landfill facility at Dehradun (for Dehradun, Mussoorie, Harbatpur, Selaqui and Vikas Nagar ULBs) is functional with EC and CTE/CTO.



Compliance of Rule 22(3)

Procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities:

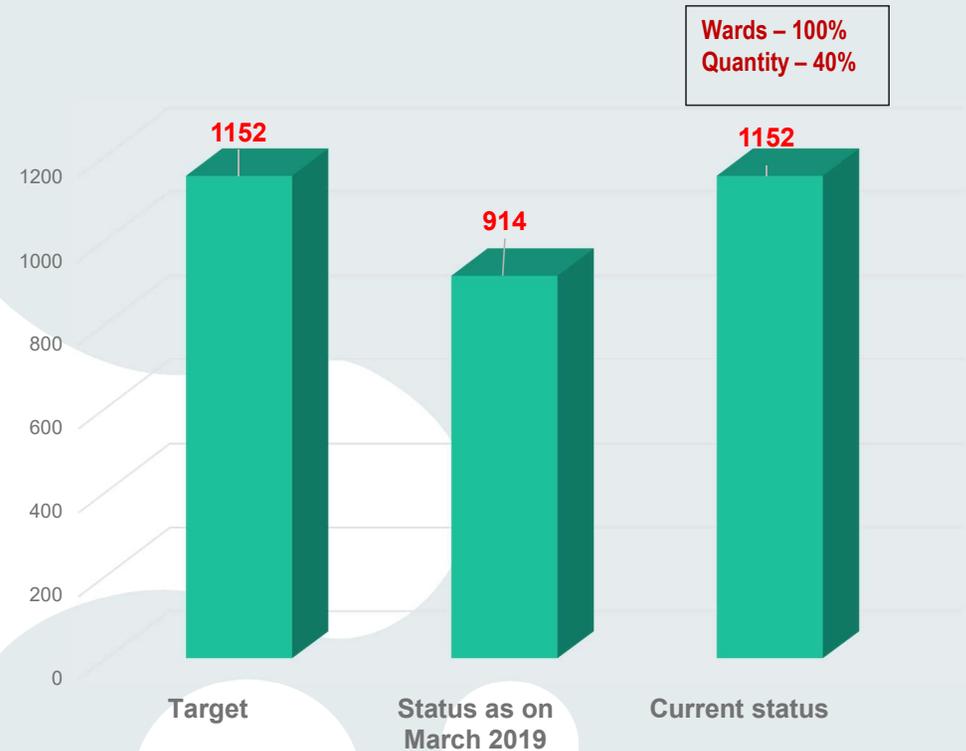
Target	Status as on March, 2019	Current status	Timeline / Remark
65	00	53	Remaining 12 sites are under process for statutory approvals. (11 Forest land and 01 Revenue Land)



Compliance of Rule 22(4)

Enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source:

Target	Status as on March, 2019	Current status	Timeline / Remark
1152 wards (8.29 lakh households, shops, institutions, schools etc.)	914 wards	1152 wards – 100% (3.34 lakh households, shops, institutions, schools etc.) - 40%	Source segregation in all the 1152 wards of 92 old ULBs have been started. However, 40.40% households, shops, institutions, schools etc. are doing segregation at source. The State is actively pursuing IEC activities to ensure 100% source segregation for which timeline has been set as December, 2023.



Compliance of Rule 22 (5)

Ensure door to door collection of waste with its transportation in covered vehicles to processing or disposal facilities:

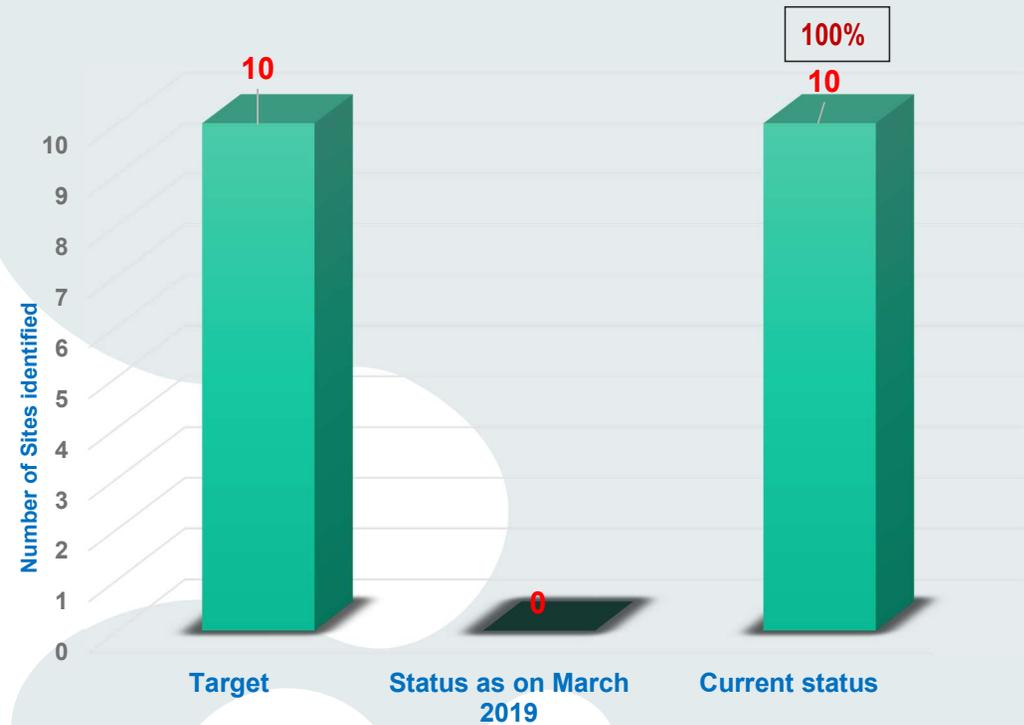
Target	Status as on March, 2019	Current status	Timeline / Remark
1152 wards (8.29 lakh households, shops, institutions, schools etc.)	278 wards	1152 wards – 100% (5.83 lakh households, shops, institutions, schools etc.) -70%.	Door to Door collection in all the 1152 wards of old 92 ULBs have been started. However, 70% households, shops, institutions, schools etc. have been covered so far. For rest, dustbins in the form of public receptacles have been provided at suitable places. 100% door to door collection will be achieved by December, 2023.



Compliance of Rule 22 (6)

Ensure separate storage, collection and transportation of C&D Waste (Construction and Demolition wastes):

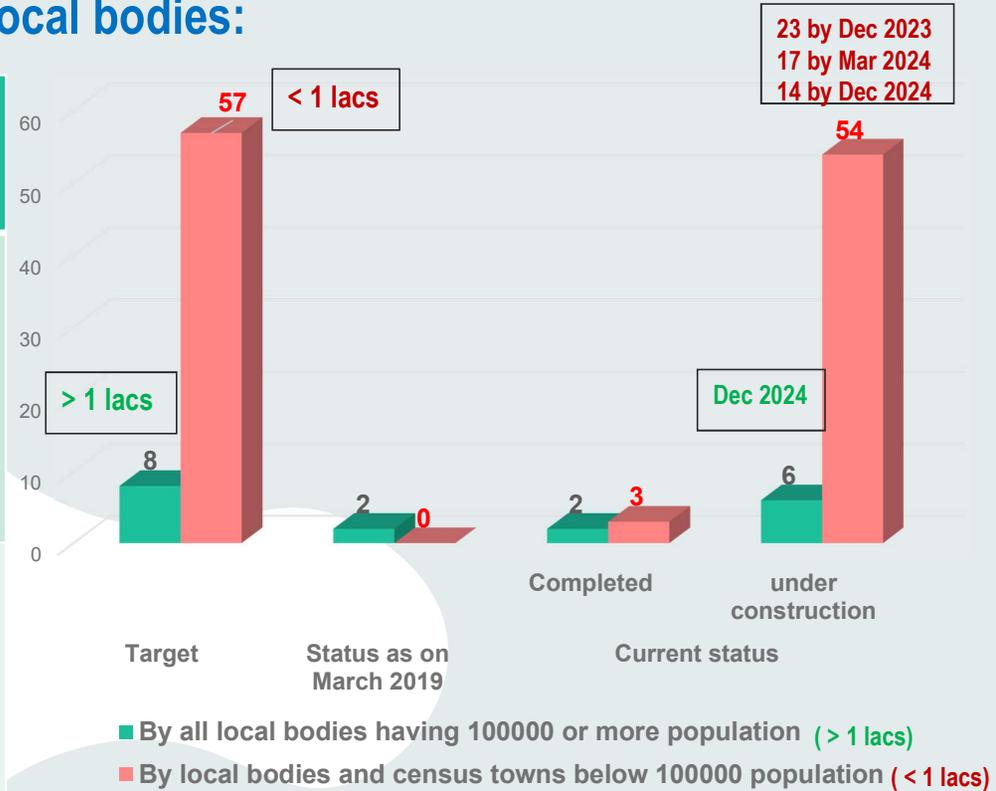
Target	Status as on March, 2019	Current status	Timeline / Remark
10 Sites	00	10 Sites have identified.	All the 10 sites have been notified to be used for storage of C & D waste. Other ULBs have reported that C & D waste generated are used in the back filling.



Compliance of Rule 22 (7 & 8)

Setting up solid waste processing facilities by all local bodies:

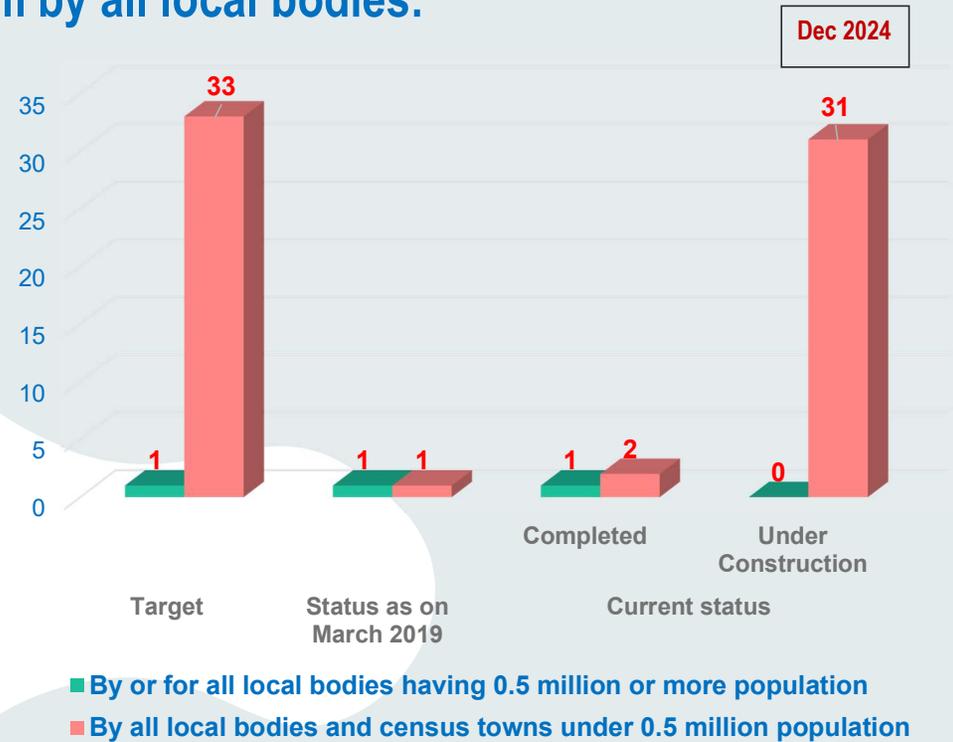
Activity	Target	Status as on March , 2019	Current status	Timeline / Remark
By all local bodies having 100000 or more population.	8 (Dehradun, Haridwar, Roorkee, Rishikesh, Kotdwar, Kashipur, Rudrapur and Haldwani.	02 (Dehradun & Haridwar)	02 (Dehradun & Haridwar)	Facilities at remaining 6 places is at various stages of execution. Timeline has been fixed for December, 2024.
By local bodies and census towns below 100000 population.	57	00	03 (Kirti Nagar, Dwarahat, & Badrinath)	Of the remaining 54 projects, 23 projects will be completed by December, 2023. 17 projects will be completed by March, 2024 and 14 projects will be completed by December, 2024.



Compliance of Rule 22 (9 & 10)

Setting up Stand Alone or Common Sanitary Landfill by all local bodies:

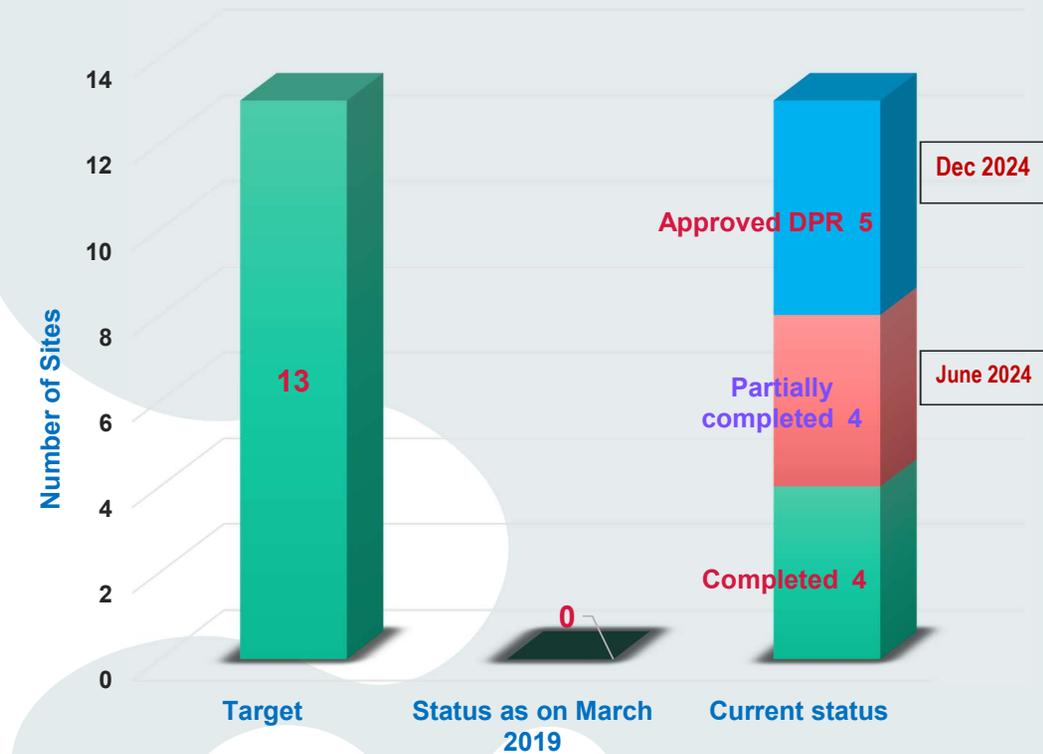
Activity	Target	Status as on March, 2019	Current status	Timeline / Remark
By or for all local bodies having 0.5 million or more population	1 (Dehradun)	1 (Dehradun)	1 (Dehradun)	Target achieved.
By all local bodies and census towns under 0.5 million population.	33	1 (Haridwar)	2 (Haridwar and Kirti Nagar)	Remaining 31 are at various stages of execution and will be completed by December, 2024.



Compliance of Rule 22 (11)

Bio-remediation or capping of old and abandoned dump sites:

Target	Status as on March , 2019	Current status	Timeline / Remark
13 (Dehradun, Haridwar, Roorkee, Rishikesh, Kotdwar, Kashipur, Rudrapur, Haldwani, Srinagar, Gauchar, Gairsain, Uttarkashi & Muni-ki-Reti)	00	<p>Bio- remediation at 4 places (Gauchar, Gairsain, Kotdwar and Muni-ki-Reti) completed.</p> <p>Bio-remediation at 4 places (Kashipur, Rudrapur, Rishikesh and Uttarkashi) partially completed.</p> <p>DPRs for 5 places (Dehradun, Haridwar, Roorkee, Haldwani and Srinagar) have been approved.</p>	<p>DPR of 08 sites of 07 ULBs (15.75 Lacs MT costing Rs. 72.08 Crore approved by Gol and Rs. 28.82 Crore is released).</p> <p>Timeline for 4 partially completed places is June, 2024.</p> <p>Timeline for 5 places where DPRs have been approved is December, 2024.</p>



Solid Waste Management in Rural Area (Village Panchayat)

7795 Village Panchayats	Solid waste management activities implemented under Swachh Bharat Mission (Gramin) Program and 15 th FC.
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State of Uttarakhand was declared ODF (Open Defecation Free) in 2017.

Current ODF status of the villages under SBM (G)

ODF plus stages	Description	Number of ODF plus villages
Aspiring Villages	Village sustains ODF status, has arrangements either for SWM or LWM	1359
Rising Villages	Village sustains ODF status, has arrangements for both SWM and LWM	1230
Model Villages	Village sustains ODF status, has arrangements for both SWM and LWM, observes visual cleanliness, displays ODF plus IEC messages.	1758
Total ODF Plus Villages as on date		4347

Remaining 10,702 villages are targeted to achieve ODF plus status by March 2024

Solid Waste Management in Rural Area (Village Panchayat)

Rs. 5.225 Crore received from Ministry of Panchayati Raj under Rastriya Gram Swaraj Abhiyan to procure 95 compactors for 95 blocks.

- 69 compactors already procured and Zila Panchayats authorized to operate and manage the compactors.
- All 95 compactors will be made operational by [July 2023](#).

Common waste plastic recycling facility (Capacity 3 TPD) established at village Mujahidpur Satiwala Khalsa.

Construction and Installation is completed. Zila Panchayat Haridwar authorized for operation and maintenance.

Challenges faced by the State in effective management of solid waste

- The topography of the State is quite challenging. 72% of the geographical area is forest area which includes 02 Tiger Reserves, 06 National Parks, 07 Sanctuaries, Biosphere reserves, Ramsar Site (Asan), World Heritage Site (Valley of Flower) etc. and vast riverine network.
- Getting non forest land for creating integrated processing facilities with landfill is very difficult.
- Acquiring forest land for the said purpose requires lot of time and prior statutory approval (Forest Clearance) from Government of India.
- Getting Environmental Clearance is also a lengthy process and is hampered at many places by protests from local stakeholders.
- Many part of the State falls under notified Eco Sensitive Zones (ESZ); EC is not granted to many identified sites.

Challenges faced by the State in effective management of solid waste

- The State is primarily dominated by rural and hilly areas with scattered houses and it is quite difficult to approach local people to undertake source segregation of waste and at many places to reach each household for door to door collection.
- It is also a daunting task to transport all compacted non-biodegradable waste to plain areas of the state for further processing.
- Low temperature in hilly areas is also not conducive for composting of biodegradable waste.
- Urban Local Bodies (as many are very small in size) are not adequately equipped with skilled manpower and infrastructure.
- Financial position of many Urban Local Bodies are also quite inadequate to carry out scientific management of solid waste.

Status of Sewage Management in Uttarakhand

Sewage Generation/Treatment Snapshot-Uttarakhand

Estimated Sewage Generation in March, 2023				484.78 MLD
Existing Treatment Capacity	Up to March, 2019		Up to March 2023	
	Nos. of STPs	Treatment Capacity	Nos. of STPs	Treatment Capacity
	24	190 MLD	68	425.00 MLD
Under Construction	-	-	20	106.12 MLD
Sanctioned and under bidding	-	-	12	45.96 MLD
Total	24	190 MLD	106	577.08 MLD

- Under DPR/TPA (Third Party Assessment) / under sanction- 20 MLD, 03 DPRs (Various locations of Dehradun) & Kotdwar.

Completion time of under construction, under bidding and sanctioned STPs

	Nos. of STPs	Treatment Capacity	Time of completion
Under construction	20	106.12 MLD	<ul style="list-style-type: none"> • 02 STPs to be completed by June, 2023. • 09 STPs to be completed by March, 2024. • 05 STPs to be completed by July, 2024. • 01 STP to be completed by May, 2025. • 03 STPs to be completed by June, 2025.
Sanctioned and under bidding	12	45.96 MLD	<ul style="list-style-type: none"> • As per Administrative Approval & Expenditure sanction (AA&ES) the period of completion of the projects is 24 months after award the work

Challenges during laying of the sewer lines in Hilly areas

- Due to steep gradients and undulating topography and loose soil strata in the hilly region, laying of sewerage network and maintaining the slope of sewer line is a big challenge.
- Settlements in the hilly regions are very dense, due to that excavation in the narrow streets are very typical as the chances of collapsing the building are very high.
- In the mountain region, due to high rainfall, Cloudbursts and extreme weather conditions, chances of landslides are high, due to which land reclamation for laying of sewerage network is big challenge.
- Due to extreme weather condition and the steep gradients in the mountain regions, land availability for construction of STPs and to develop the culture for treatment of sewage is a big challenge.



Thank You