

SWACHH BHARAT

A Monthly Newsletter



EDITORIAL

The Swachh Bharat Mission (SBM) is a major initiative of Government of India aims to make India litter free and open defecation-free by 2019. The objectives of the SBM describe a complex set of action that can be delivered through the fundamental instruments of social change: behavioural change and greater public awareness about the ill-health effects of poor sanitation and solid waste management (SWM). To institutionalize the change, the SBM prescribes capacity building for municipal officials and technical staff.

The E-learning program lunched by MOUD, is new effort to build capacity of municipal functionaries to achieve objectives of the SBM. It provides flexibility to busy city managers and provides them options of choosing their own pace of learning. This platform will serve as a one stop hub with videos showcasing leading practices, technology options and peer to peer learning. This is divided into seven components in accordance with the SBM (U) Guidelines. These components are (i) introduction to urban sanitation in India, (ii) municipal solid waste management, (iii) individual household toilets, (iv) community and public toilets, (v) IEC and public awareness (vi) PPP and financing, (vii) other relevance modules. To achieve the ambitious scale of effort required for a 'Clean India', the Mission seeks to involve the Private Sector through Corporate Social Responsibility (CSR).

While addressing the components of SBM for urban areas, State Governments and Urban Local Bodies (ULBs) are expected to focus on a set of social priorities and outcomes that define the scope and complexity of the Mission.

The national government has allocated of Rs.14,623 crore as a central share for the SBM in urban areas. In addition, a minimum additional amount of Rs.4,874 crore (as equivalent to 25 percent of Gol funding) will be contributed by the States/ULBs share. The balance funds is proposed to be generated through various other source. The State Governments and ULBs are expected to prepare City Sanitation Plans (CSPs) and State Sanitation Strategies (SSS) as per National Urban Sanitation Policy, 2008.

This monthly newsletter brings news about the progress of the Mission, the success stories from different cities in India, the champions and ambassadors who bring about change, and the new solutions and initiatives that can help to achieve a transformation in lifestyle and environment. It serves as a vehicle for promoting ground-level practices and knowledge for those interested in making



CONTENTS

Star City: Mysuru	2
Initiative	4
Success Stories	6
Progress Update: Status of Swachh Bharat Mission - Urban as on 07.08.2015	8

India clean and litter free.

The newsletter is available on the Mission website (<http://swachhbharaturban.gov.in/>) and can be downloaded for further dissemination. The newsletter is the outcome of collaborative efforts from the states and cities. We thank you and welcome you all for your contributions and suggestions for the forthcoming issues.

— Editorial Team, NIUA



MYSURU - THE CLEANEST CITY

According to a survey conducted in 476 cities by the Ministry of Urban Development, Government of India during 2014-15, Mysuru has been ranked as the cleanest city in India. The ranking is based on solid waste management and extent of open defecation in the city. Mysuru made it to the top rank because of various factors. Open defecation is minimal in the city. The city has improved good systems for achieving proper sanitation and hygiene. Efficient sewerage, drainage, safe and sufficient water supply has made a positive impact on the Mysuru citizen's health and environment. The Mysuru City Corporation (MCC) has focused mainly on reduction and segregation of waste at source, door to door collection, recycling and reuse of waste, generation of wealth from waste and involvement of public, NGOs, educational institutions and various organizations in massive public awareness campaigns on cleanliness and the involvement of private sector through PPP for treatment of waste.

Underground Drainage (UGD)

The Corporation has constructed three facultative aerated lagoons type sewage treatment plants of capacity 157.6 MLD with 7 wet wells with adequate pumping machinery. Sewage from drainage districts A and D flows through outfall sewer lines into a Sewage Treatment Plant (STP) of capacity 60 MLD at Rayanakere, H.D. Kote Road. District B sewage flows into a STP of capacity 67.6 MLD at sewage farm Bangalguru-Ooty Road. Sewage of District C enters a 30 MLD capacity STP at Kesare near Ring Road.



Solid Waste Management

The total solid waste generated in the city is around 402 TPD, out of which 60 percent is wet waste and 40 percent dry waste. 2297 pourakarmikas (652 permanent and 1645 outsourced) are engaged in daily cleaning activities like street sweeping, door to door waste collection and deposition in specific locations. They are provided with safety gear like mask, gloves, aprons and gumboots. Regular health checkups are conducted for these workers.

All the residents of 65 wards of the city are covered under door to door waste collection through 168 auto tippers and 130 push carts. Micro plan for all these wards is prepared along with route maps to ensure source segregation.

In order to achieve source segregation and to encourage public to segregate waste at source, MCC has distributed 2 color coded bins to 1,50,000 households. The Corporation is collecting the wet waste every day and dry waste twice a week from each house. Zone wise training for all pourakarmikas has been imparted on source segregation and reduction of wastage.

A centralized compost plant of 200 TPD is operated and maintained by IL&FS on PPP basis. Essential bio-culture is being sprayed daily on the incoming fresh garbage to avoid odor and vector. Also a 26 ft high barricade is erected around the compost plant. Around 6700 saplings are planted around the entire sewage farm. Action has been taken to plant another 3000 saplings in the upcoming days.



Zero Waste Management

The major development in recent times is making of eight Zero Waste Management (ZWM) units functional in which about 45-50 MT of dry waste per day is processed. An amount of Rs.26,014 is the total income generated which acts as revenue for the self help groups who are managing the ZWM units. Garbage sorting and shredding machines of 10 TPD are also installed in the ZWMs to optimize the capacity of these units.



Information, Education & Communication Activities

With the co-operation of non-governmental organizations, the MCC has carried out several wide spread awareness campaigns regarding segregation of waste at source. Also a pledge regarding segregation of waste is taken by officers and employees along with all the Corporators. SMS and Whatsapp messages are regularly

sent to members of the public to minimize waste and separate waste at source. Mini solid waste treatment plants have been contemplated to wean away different localities from being dependent on centralized waste management systems. Citizens not abiding with the rules or hindering the maintenance of cleanliness including source segregation, littering etc., are penalized frequently.



This is an initiative of MCC Commissioner Dr C.G.Betsurmath. He has promised many campaigns in the days to come

CLEANLINESS BUG BITES THE MCC; SENDS PLEDGE SMS



Mission Swachh Mysore goes Hi-Tech

Mysore, Oct 25 (MTY&RNN)- Mission Swachh Mysore launched by the Mysore City Corporation as part of Swachh Bharat Campaign launched by Prime Minister Narendra Modi on Gandhi Jayanthi by taking to brooms, yesterday turned hi-tech with MCC Commissioner Dr. C.G. Betsurmath sending messages on mobile phones to the citizens of Mysore to take active part in the mission in the much-hyped Campaign aimed at making India clean by 2019.

The message read a pledge that "I, Dr. C.G. Betsurmath commissioner of the MCC, a resident

of Mysore, commit that I will not throw any garbage or waste on road, street, vacant sites and drains but will throw only in dustbin or location provided for the same. I will also segregate wet and dry waste at source and hand it over to the collector. I will say no to plastics. I shall also spread this message amongst all my near and dear ones, my neighbours and do the best to preserve and protect the environment."

The message also asked citizens "please put your name and take the pledge and send the message to your near and dear ones."

Control of Plastics

MCC has led emphasis on making the city plastic free. Leading by example, the Corporation banned plastic in its own office first. It was then banned at the Chamundi Hills and Mysuru Palace which are visited by over 30 lakhs tourists every year. Frequent raids are being conducted to enforce non-usage of plastic carry bags of less than 40 microns, which are confiscated from commercial establishments and stockists.

PLEDGE

"I, C.G. Betsurmath, Commissioner, Mysuru City Corporation, Commit that I will not throw any garbage or waste on road, street, vacant sites and in drains, but will put only in dustbin or location provided for same. I will also segregate wet & dry waste at source and hand it over to the collector. I will say no to plastics. I shall also spread this message amongst all my near and dear ones and my neighbours and do the best to preserve and protect my environment."



Source: www.mysorecity.gov.in/node/232

SWACHH BHARAT MISSION

E-COURSE ON CAPACITY BUILDING OF MUNICIPAL FUNCTIONARIES



A platform to build capacity of municipal functionaries to achieve objectives of the Swachh Bharat Mission

The Swachh Bharat Mission (Urban) is a major initiative of the Ministry of Urban Development (MoUD), Government of India. While addressing the need for the capacity building, MoUD has introduced the e-course on capacity building of municipal functionaries. It introduces challenges and solutions in the field of urban sanitation to municipal functionaries who are at the forefront of delivering objectives of the Mission.

The e-learning platform aims to reach out to city managers and municipal functionaries of all 4041 statutory towns for their

continued education. It provides flexibility to busy city managers and provides them options of choosing their own pace of learning. This platform will serve as a one stop hub with videos showcasing leading practices, technology options and offer peer to peer learning.

The e-course is divided into seven components in accordance with the Swachh Bharat Mission (Urban) Guidelines. To enable a thorough understanding of each component, these have been sub-divided into seven modules comprising of several tutorials.

Component 1: Introduction to Urban Sanitation in India (Course Series 100)

The modules will also talk about linkages of sanitation to other sectors such as health, environment as well as indirect links to poverty, social discrimination and education. This module will discuss the planning process for urban local bodies to achieve and sustain open defecation free status.

Component 2: Municipal Solid Waste Management (Course Series 200)

Sessions in this module will discuss in detail MSW generation, segregation, collection, transportation, sorting, processing, recovery and disposal. Tutorials will discuss concepts such as reduce, reuse and recycle (3R), zero waste, sound material cycle society and waste to energy. MSW management, design, finance and monitoring will be discussed at relevant stages.

Component 3: Individual Household Toilets (Course Series 300)

Sessions in this module will talk about barriers to access household toilets, challenges faced by urban local bodies (ULBs) in providing toilets, analysis of past schemes for provision of individual toilets, financing construction of toilets, design standards, behavioural challenges related to use of toilets.

Component 4: Community and Public Toilets (Course Series 400)

Sessions in this module discusses the why and how of provision of community toilets. Tutorials focus on

where to build, how to build and how to operate and maintain community and public toilets. Special tutorials will discuss leading practices and various financial models for construction, operation and maintenance of public toilets

Component 5: IEC and Public Awareness (Course series 500)

This module will discuss behaviour change communication and public awareness strategies to address issues of open defecation, prevention of manual scavenging, hygiene practices, proper use and maintenance of toilets, and its related impacts on health and environment.

Component 6: PPP and financing sanitation (Course series 600)

These modules will discuss strategies for successful public-private partnerships and financing for sanitation. The tutorials will include main benefits and limitations of the PPP procurement mechanism, and innovative and sustainable financing strategies.

Component 7: Other Relevant Modules (Course series 700)

These modules includes aspects of sanitation which have either not been covered in the earlier components or which are cross-cutting. These will also introduce innovations and pilot projects which have the potential to evolve into standard practices in near future.

Conduct of Quiz Competition across Schools and Colleges on Swachh Bharat Mission (Urban)

Attempting Behaviour Change through Students

Recognizing that the participation of school and college children is essential in creating awareness for the Swachh Bharat Mission, as advised by the Ministry of Urban Development, various quiz competitions on the Swachh Bharat theme were held throughout the country by the State Governments/UTs in the week of 15th to 22nd of July 2015. The youth today can act as the most important vehicle for inculcating behaviour change.

An overwhelming response was received for this cause and over 14,000 schools and colleges participated in around 1100 urban local bodies. Students embraced the cause with great enthusiasm with over 3.5 lakh students participating and nearly Rs 55 lakh given as prize money besides awarding certificates, trophies and letters of appreciation.

State wise details of Quiz Competition

State	Total no. of ULBs Participated	Total no. of Schools and Colleges Participated	Total no. of Students Participated	Prize Amount Distributed (Lakh)
Madhya Pradesh	378	6018	45302	22.84
Punjab	3	45	5000	1.00
Uttarakhand	52	294	0	0
Jharkhand	22	248	17747	2.36
Gujarat	47	130	15341	1.58
Delhi	3	1155	47000	certificates only
Maharashtra	55	453	7083	certificates only
Coa	14	170	35000	0.58
Manipur	4	75	580	1.00
Andhra Pradesh	100	1608	30871	4.96
Karnataka	200	3094	96524	18.00
Haryana	13	40	2476	0.18
Mizoram	1	7	14	0.60
Tamilnadu	237	776	45650	1.85
Jammu & Kashmir	1	6	4000	0
Chandigarh	1	22	1200	0
Total	1129	14141	353788	54.95



Launch of Swachh Bharat e-Learning Portal

The Ministry of Urban Development has launched the first ever e-learning portal on 1st August 2015 at New Delhi. It is developed for ULB functionaries in India. The portal will presently cater to sanitation and solid waste management linked training. However, the Ministry plans to scale it up with support from other partners to create a comprehensive learning platform cutting across all civic functions related to urban development. This e-Learning platform is unique in that it leverages interactive multi-media content, such as videos, presentations, real-time quizzes etc., to ensure an

engaged learning for ULB employees at their own pace and convenience.

This portal is useful since over 4000 ULBs with more 1 lakh employees need proper training and skills to consistently implement SBM initiatives. ULB needs smart leadership in its functionaries who possess relevant skills, knowledge about their work and a service attitude towards the community they serve. However, the individual capacity building is a challenging task because of limited resources, lack of qualified instructors and most importantly, the inability of ULB employees to spare time for class-room based training. Moreover, the power of ICT can never be emphasized including the capacity building.



CREDAI CLEAN CITY MOVEMENT IN KOCHI

Kochi is fast becoming a burgeoning metropolis in the state, with various developmental projects in the pipeline. As a natural outcome of the rapid urbanization, the issue of waste disposal has become a burden on the LSG and the public. The garbage menace has reached a point where it is no longer the responsibility of the Government to keep the city clean and healthy, but of every citizen has a fair share to do.

CREDAI KOCHI has taken this cause one step further by launching a nodal agency called the 'CREDAI Clean City Movement', as part of its Social Responsibility programme. It decided to implement the Eco friendly waste management system, the Aerobic Microbial composting system, a solid waste management successfully tested and approved by Clean Kerala mission vide Govt. order GO(RT) 459/2005/LSGD dt.03.02.2005.

Solid Waste Management

The idea of Solid Waste Management germinated in 2007, when the 'Garbage Crisis' of 2007 hit Kochi. CREDAI Kochi came forward with a far-sighted solution – an eco-friendly solid waste management system for the high rise apartments with the focus on health, hygiene and safety measures. CREDAI Kochi set up a committed team with adequate funds to execute the action plan. In 2007, a trail project was implemented in a few selected apartment complexes. An awareness campaign with the aid of audio-visual presentations was initiated in the apartment complexes intending to enlighten the residents. The initial reluctance to implement the segregation of waste at source gradually subsided and the success of the system provided wider acceptance for this unique social initiative. Today, 90 percent of apartments in the city of Kochi are covered by this scheme.

BIO DIGESTER BIN FOR APARTMENTS

Bio Digester Pots for Individual Homes

The Clean City Movement uses Bio-Digestors to process the Bio-Degradable Organic Waste. The Bio-Degradable Waste is deposited in 6 feet long, 3 feet wide and 2.5 feet high Bio Digesters and is sprayed with Organic solution. Consequently the Aerobic Microbial composting system, based on the bio-trigger mechanism, scientifically combines the naturally occurring microbes and decomposes

the waste within 15 to 20 days. The decomposed waste obtained makes an excellent organic fertilizer. Kochi Corporation approved the system and made it mandatory in all apartment complexes during 2009.

Social Impact

The implementation of the project is also linked with poverty alleviation, as more than 600 women from EWS families are given employment.

Recognitions & Awards

This initiative by CREDAI Kochi has attracted numerous and prestigious awards and accolades from the Government of Kerala, as given below:

- Award for the Best Environmental Programme.
- Award for the Best Technology.
- Award for the Best promoter of Hygiene Maintenance Programme.

Public Private Participation

CREDAI Clean City Movement has been appointed as the participating agency in integrated Solid Waste Management programme organized by Corporation of Kochi, KSUDP and District Administration. Certificates are issued to all builders who have implemented bio-bin system for self contained solid waste management. The certificate of CREDAI Clean City Movement is accepted by Corporation as proof of implementing self contained Solid Waste Management system in building complexes while applying for completion certificate.



Bio Digester Bin for Apartments



Bio Digester Pots for Individual Homes



The Public toilet system at the Collectorate, Kakkannad, Ernakulam inaugurated by District Collector Dr. M. Beena, IAS, constructed by CREDAI Clean City Movement in association with BPCL, Kochi Refinery .



CLEAN TOILETS IN KOCHI

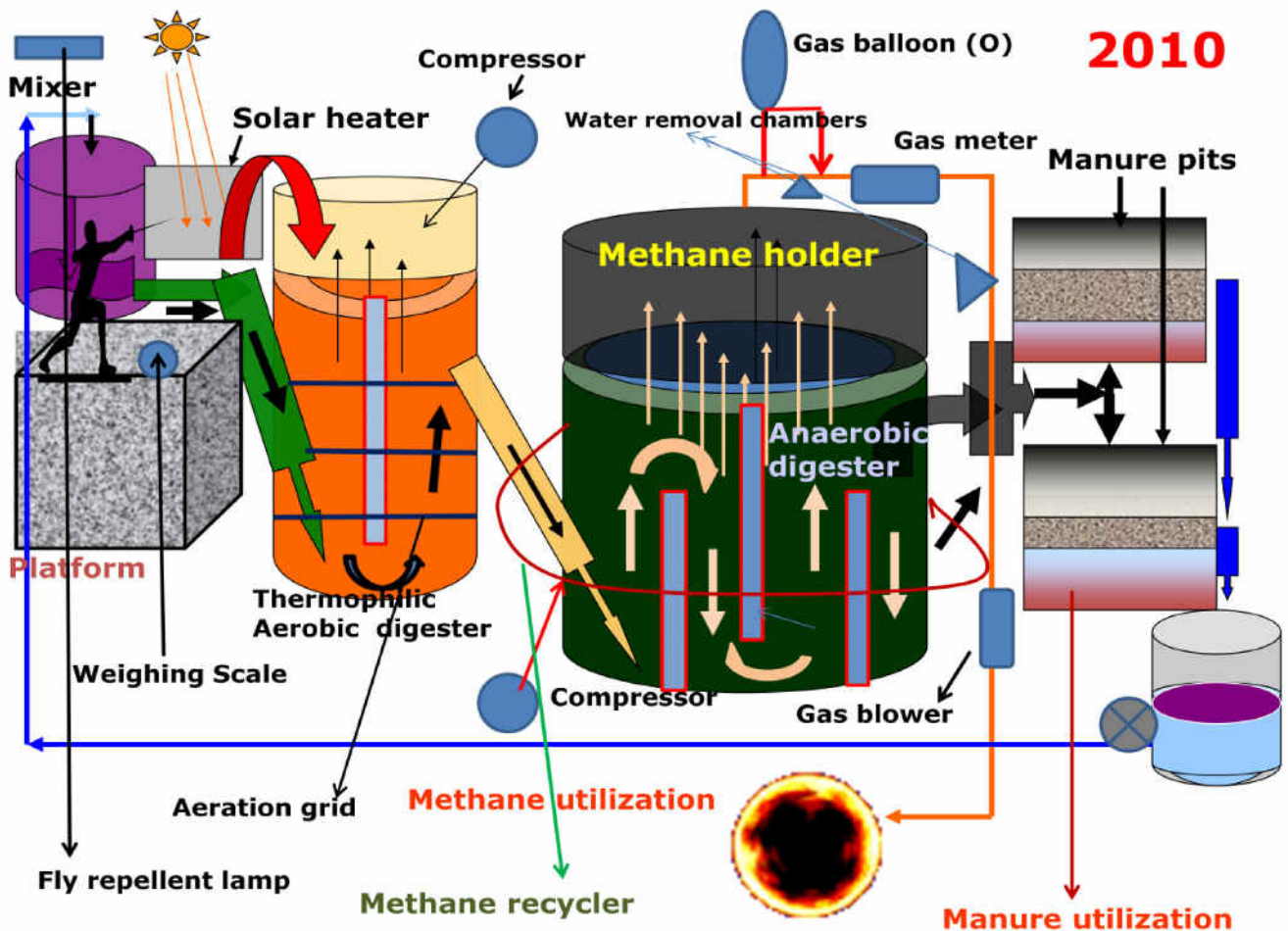
Clean Toilets constructed and maintained by CREDAI Clean City Movement was the first public private participation project of hygiene management in the land provided by District Collector during 2008. The quality of maintenance of the Clean Toilets during the last 5 years is a role model replicable in other parts of the city. The plan and design for constructing a new clean toilet system, in the Greater Kochi Development Authority premises at Kadavanthra is under process. Better Kochi Response Group (BKR) is the design facilitator.

DECENTRALIZED WASTE RESOURCE MANAGEMENT

Bhabha Atomic Research Centre (BARC), Mumbai developed 'NISARGRUNA' (Nature's Debt) technology for processing bio-degradable waste especially from source separated household waste. This technology is based on the process of bio-methanisation and has been used in around 160 projects. The cost of setting up a one tonne plant is roughly Rs.17-20 lakhs and processing of one tonne waste generates around 50 kg of manure. The technology is best suited for decentralized management of bio-degradable municipal solid waste. This technology can be used to set up waste manage-

ment plants of processing capacity 1 M.T. to 20 M.T. of waste per day. The land required for processing around 5 M.T. of waste is around 500 sq.m. The technology developed by BARC is operational at different locations of India produces pathogen free and odor free sludge suitable as bio-fertilizer (planning commission. nic.in/reports/genrep/rep_energy_vol 2. pdf). Implementation of this technology would create various opportunities for entrepreneurial ventures. It is a sustainable technology as it is economically affordable, socially acceptable and environmentally friendly.

NISARGRUNA BIO DIGESTER



Source: Prof. Sharad Kale, BARC, Mumbai, presentation made in the National Workshop on Sustainable Solid Waste Management in India jointly organized by Ministry of Urban Development, Ministry of Environment & Forest, National Institute of Urban Affairs, New Delhi at India Habitat Centre, New Delhi.

Please send your success stories, anecdotes and pictures (high resolution) to:
pdey@niu.org and ssingh@niu.org



STATUS OF SWACHH BHARAT MISSION (URBAN)

AS ON 07.08.2015



S.No.	State	STATUS OF TOILETS					STATUS OF SOLID WASTE MANAGEMENT				
		Individual Household Toilets			Cumulative Community & Public Toilets		Ward with 100% door to door collection (Nos.)	Total Wards (Nos.)	Total Waste Generation (MT/D)	Total waste processing (%)	Target to achieve waste processing by March 2016 (%)
		Application Received (Nos.)	Sanctioned (Nos.)	Completed (Nos.)	(Number of Seats)						
					Identified/ Sanctioned	Completed					
1	Andhra Pradesh	330000	91000	7000	6680	0	3072	3276	5980	8	40
2	Andman& Nicobar Islands	115	0	0	69	0	18	18	70	30	65
3	Arunachal Pradesh	17500	0	0	1480	0	18	27	110	15	25
4	Assam	97331	200	0	4800	0	42	883	650	0	20
5	Bihar	80000	80000	0	62	0	192	3229	1670	0	0
6	Chandigarh UT	0	0	0	9052	2424	28	26	340	100	100
7	Chhattisgarh	245456	228431	2108	9849	3571	629	2884	1896	0	10
8	Daman & Diu	0	0	0	0	0	13	28	85	0	0
9	Dadra & Nagar Haveli	0	0	0	0	0	0	15	35	0	0
10	NCT of Delhi	11117	0	0	9233	5776	272	314	8390	52	75
11	Goa	1996	104	110	70	0	197	197	183	25	100
12	Gujarat	396508	396508	298001	7440	450	1525	1730	9227	28	44
13	Haryana	59875	37407	1829	1950	163	317	1449	3490	25	45
14	Himachal Pradesh	416	416	92	0	0	160	502	300	20	25
15	Jammu & Kashmir	1872	95	0	125	6	989	1163	1792	2	40
16	Jharkhand	28360	6796	0	415	0	117	815	3570	0	25
17	Karnataka	300061	99691	7986	14410	1680	3962	5252	8784	34	40
18	Kerala	0	0	0	0	0	1280	2096	1576	50	70
19	Madhya Pradesh	393930	279944	106395	980	2180	3134	6855	5079	12	35
20	Maharashtra	197892	42879	1600	5171	2520	174	7054	26820	10	25
21	Manipur	10389	2102	41	10	0	130	315	176	50	60
22	Meghalaya	3105	0	0	193	0	6	114	268	58	84
23	Mizoram	300	300	300	60	23	66	193	552	4	20
24	Nagaland	9330	0	0	0	0	165	234	270	0	25
25	Odisha	621250	100000	0	2230	570	300	1012	2460	2	50
26	Pondicherry UT	6590	6590	800	200	33	60	129	495	20	60
27	Punjab	37362	13482	7480	3198	0	1500	2479	3900	10	50
28	Rajasthan	71000	59000	540	3100	650	740	5022	5037	15	65
29	Sikkim	1290	40	0	8	8	4	48	49	0	20
30	Tamil Nadu	10197	0	0	7116	1188	9935	13667	14532	15	25
31	Telangana	227139	65596	635	2390	1155	902	1862	5520	18	35
32	Tripura	0	0	0	0	0	0	244	407	0	0
33	Uttar Pradesh	102501	21738	862	959	0	315	11290	19180	7	17
34	Uttarakhand	25953	27320	4	1260	22	78	706	1013	27	40
35	West Bengal	12200	12200	0	0	0	1130	2875	8674	0	0
	Total	3301035	1571839	435783	92510	22419	31470	78003	142580	15.56	32.60

For further details about SBM-U, please visit: <https://swachhbharaturban.gov.in/>

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