

#### **EDITORIAL**

Swachh Bharat Mission (SBM) - a Central Government initiative was launched in June 2015 at New Delhi to make clean India and open defecation free by 2019. It seeks to eliminate open defecation and manual scavenging besides promoting scientific solid waste management and realizing behaviour changes in context to healthy sanitation. It is not just about cleaning surroundings but also seeking people's participation in creating trashfree environment, providing sanitation facilities and paving a way for Swachh Bharat. It highlights the issue of toilets and cleanliness in India.

Ministry of Urban Development (MoUD), Government of India, is taking numerous steps to improve the sanitation conditions and solid waste management system in India so that the goal of 'clean India' is achieved by 2019. 'Swachh Survekshan', a monitoring tool to track the progress of the Mission, will be conducted in 500 AMRUT cities from January 2017. In order to assess the preparedness level of urban local bodies for the survey, regional workshops on 'Swachh Survekshan-2017' were organized in states of Maharashtra (Mumbai), Assam (Guwahati), Andhra Pradesh (Vijaywada), and Uttar Pradesh (Agra and Varanasi) in November, 2016 and was attended by all AMRUT cities of respective states. The workshops were also accompanied by exhibitions set up by vendors for sanitation and solid waste management equipments. In additional to this, the Rotary Club of Madras Midtown, in partnership with MoUD is organizing a 'Kashmir-to-Kanyakumari Cycle Rally' ('Tour de Rotary Cycle Rally') from 6th

November to 9th December 2016, to spread the message of SBM. The rally is covering 4800 km in 35 days, covering 9 states, 3 union territories and 28 cities, beginning from Srinagar (Kashmir) and ending at Kanyakumari.

Hon'ble Deputy Chief Minister of Delhi launched the 'Swachh Delhi App' on 9th November 2016 with the objective to facilitate citizens of Delhi to file complaints of garbage and pollution. Through this App, the people can send the photo of the dirty places to the Central Control Room with details viz. latitude, image etc., on the Delhi Government's website http://delhicelebrates.in/sd/ or http:// swachh.delhi.gov.in. The complaint will be forwarded to concerned agencies for redressal.

This newsletter showcases the progress of SBM and brings news of success stories from different cities in India, highlighting the champions and ambassadors of change. It also serves as a vehicle for promoting ground level 意でする

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practices and knowledge for those interested in making India clean and litter free.

The newsletter is available the Mission website (http:// on swachhbharaturban.gov.in) and can be downloaded for further dissemination. The newsletter is an outcome of collective efforts made by states and cities. thank you for your contribution and welcome suggestions for forthcoming issues.

-Editorial Team, NIUA





#### SWACHH SURVEKSAN 2017 WORKSHOPS

Regional level workshops on SWACHH SURVEKSAN 2017 were organised in states of Maharashtra (Mumbai), Assam (Guwahati), Andhra Pradesh (Vijayawada), and Uttar Pradesh (Agra and Varanasi) to assess the preparedness lavel of Urban Local Bodies for the survey in November 2016. Workshops were attended by all AMRUT cities of respective states. Those ULBs which were declared open defecation free (ODF) by the Quality Control of India (QCI) were handed over their certificates. ULBs were also urged to take the self-assessment test on the portal for a trial run at their level.

At each of the workshops, a team from the Ministry of Urban Development facilitated the proceedings and explained

in details and at length about the various marking methods and the scores for each section (handling MSW, sweeping, collection and transporting of the MSW, processing and disposal of MSW, managing open defecation, information education communication (IEC) and capacity building activities of SMB staff), so that the Mayors, Commissioners, Chairpersons and other senior officials could get proper information on the survey. There will be 2,000 marks in total for the survey.

The workshops were also accompanied by exhibitions set up by vendors for sanitation and solid waste management equipments.





## **TOUR-DE-ROTARY-CYCLE RALLY TO RAISE** AWARENESS ON SWACHH BHARAT MISSION

The Rotary Club of Madras Midtown, in partnership with the Ministry of Urban Development (MOUD), is organising Kashmir-to-Kanyakumari cycle rally ("Tour de Rotary Cycle Rally") from 6th November - 9th December 2016, to spread the message of Swachh Bharat Mission (SBM).

- The Rally is covering 4800 km in 35 days, covering 9 states, 3 union territories and 28 cities, beginning from Srinagar in
- Kashmir, and ending at Kanyakumari.
- 25 professional cyclists are covering this entire distance, along with participation from around 10000 cyclists accompanying them over shorter distances in each city.
- The cyclist are spreading awareness regarding SBM and are also raising funds for building community and public toilets and urinals in cities and towns, under SBM, and for providing SWM equipment to cities, based on their requirements.





The Table below provides an indicative description of the progress of the rally:

# Kashmir to Kanyakumari Swachh Bharat Cycle Rally - 2016

#	Date	City	Activities						
1	06-Nov-16	Jammu	Arrival of 22 Cyclists along with their team at Jammu.						
2	07-Nov-16	Jammu	Swachh Bharat cycle Rally flagged off by Deputy Chief Minister, Dr. Nirmal Singh, IGP - Jammu, Shri Danesh Rana, Deputy Commissioner, Shri Simrandeep Singh and Municipal Commissioner, Dr. Man Mohan Singh from Jammu to Pathankot.  President of Rotary Club of Madras, Coordinator, Dr. Dushyant Choudhary, President of Rotary Club of Jammu, Shri B.R Chandan, Vikram Jindal from Chennai, Shri Jatinder and Shri Ashok Gupta from Rotary Club of Jammu were also present on the Occasion.						
3	08-Nov-16	Pathankot	Cycle Rally flagged off from Pathankot to Ludhiana in which Mayor of Pathankot Municipal Corporation, Shri Sunil Jyoti as well Municipal Commissioner, Shri. Gurpreet Singh Khera and other Municipal officials were present.						
4	09-Nov-16	Ludhiana	Cycle Rally flagged off from Ludhiana to Ambala in which Mayor as well Municipal Commissioner Shri. Chanshyam Thori, Deputy Municipal Commissioner, Ms. Surbhi Malik and other Municipal officials of Ludhiana Municipal Corporation were present.						
5	10-Nov-16	Ambala	Cycle Rally flagged off from Ambala to Sonepat in which Municipal Commissioner. Shri Dinesh Singh Yadav as well as other municipal officials were present. Besides that members of Rotary Club of Ambala also majorly participated in flag off.						
6	11-Nov-16	Sonepat	Cycle Rally were flagged off from Sonepat to New Delhi in which Municipal Commissioner of Sonepat Sh. Virender Singh Hooda, other Municipal officials and members of Rotary club were also present.						
7	13-Nov-16	New Delhi	Chairman, Shri Naresh Kumar of New Delhi Municipal Council (NDMC) flagged off the Cycle Rally from Connaught Place in which other municipal officials of NDMC and members of Rotary Club were present.						
8	14-Nov-16	Neemrana	Cycle Rally flagged off from NIIT University (NU) in which President, Dr. VS Rao, President of NU, Municipal Officials of Neemrana municipality and officials of Rotary club were participated.						
9	15-Nov-16	Jaipur	Cycle Rally flagged off from Jaipur to Ajmer in which Mayor Shri. Nitin Souta, Deputy Mayor, Shri Manoj Bhardwaj and Municipal Commissioner, Shri Hemant Kumar Gera of Jaipur Municipal Corporation were present						
10	16-Nov-16	Ajmer	Cycle Rally flagged off from Ajmer to Bhilwara in Which Honourable Collector Shri. Gaurav Goyal, Mayor Dharmender Gehlot and Deputy Commissioner Smt. Jyoti Kakani of Ajmer Municipal Corporation were the chief guests. Rotary President of Ajmer Mid town, Dr. Prem Chandwani, President of Ajmer Metro, Shri. Ramesh Moyal, President of Rotary club of Ajmer, Shri. Rajni Toshniwal were also present.						
11	17-Nov-16	Bhilwara	Cycle Rally started from Bhilwara to Udaipur, flagged off by the Chairman, Smt. Lalita Samdani of Bhilwara Nagar Nigam. During the flag off other Municipal authorities were also participated. Shri Babu Lal Jaju, Shiv lal Joshi and Trilok Chawra from Rotary club of Bhilwara were also present.						
12	19-Nov-16	Udaipur	Cycle Rally flagged off by Mayor, Shri. Chandra Singh Kothari, Municipal Commissioner, Shri. Siddhart Sihag of Udaipur Municipal Corporation and members of Rotary Club of Udaipur were also participated.						
13	20-Nov-16	Gandhina- gar	Cycle Rally flagged off from Gandhinagar to Vadodra in which Collector, Municipal Commissioner, Deputy Municipal Commissioner, Mayor, Deputy Mayor of Gandhinagar Municipal Corporation, Chairman of Gandhinagar Urban Development Authority (GUDA), Chairman-Pavitra Yatradham of Govt. of Gujarat and Ex-Home Minister of Govt of Gujarat, State Information Commissioner, DG, AG and other Rotarians participated as well. Small kids as young as 3 yrs to elders as old as 80 yrs and school children participated in huge numbers at Gandhinagar.						
14	21-Nov-16	Vadodra	Cycle Rally flagged off from Sama Sports Complex Vadodra to Surat in which 1000 Cyclists Participated including School and College Students.						
15	22-Nov-16	Surat	Cycle Rally flagged off from Surat to Vapi in which Municipal Commissioner Sh. M. Thennarasan, other Municipal officials of Surat Municipal Corporation and members of Rotary Club, Surat were also present.						
16	23-Nov-16	Vapi	Cycle Rally flagged off from Vapi to Mumbai in which Municipal Commissioner, other Municipal officials of Vapi Municipality and members of Rotary club of Vapi were also present.						
17	25-Nov-16	Mumbai	Cycle Rally flagged off from Mumbai to Pune in which Mayor Mrs. Sneha Amekar, Municipal Commissioner Shri. Ajoy Mehta & DG. RTN. Gopal Madhania and other members of Rotary clubs were also present.						
18	26-Nov-16	Pune	Cycle Rally flagged off from Pune to Kolhapur in which Municipal Commissioner of Pune, Shri. Kunal Kumar and Municipal authorities were present. RID 3131 District Governor Rtn. Prashant Deshmukh and other Rotary Members were also present during the flag off Ceremony.						
19	27-Nov-16	Kolhapur	Cycle Rally flagged off from Kolhapur to Dharwad in which Municipal Commissioner of Kolhapur, Dr. Arun Vadekar, Addl. Commissioner Shri Caneshwar Dare, Addl. Commissioner Shri Vijay Karathe and Rotary members of Kolhapur were also present.						
20	28-Nov-16	Dharwad	Cycle Rally flagged off from Dharwad to Chittradurga in which Municipal Authorities of Dharwad municipality and Rotary members of Dharwad participated in a big way.						
21	29-Nov-16	Chitra- durga	Cycle Rally flagged off from Chitradurga to Bengaluru where Municipal Commissioner of Chitradurga Municipal Corporation, Shri. Nalavadi M K and Rotary Members of Chitradurga were also Present. School children participated, carrying Swachh Bharat messages with their cycles.						



### THEMATIC DRIVE: 16TH -30TH NOVEMBER 2016

The fortnight of 16th - 30th November 2016 was devoted to the theme "Special Focus Around Community and Public Toilets (CT/PTs)". ULBs had been advised to undertake a range of activities under this theme, such as:

- Triggering drives;
- Clean-up drives, art and painting drives by local artists on public toilet (PTs) walls;
- Audit of all existing CT/PTs infrastructure by municipal officers and staff;
- Intensive drive to make all CT/PTs functional;
- Formal inauguration of new community/Public Toilets (CT/PTs) constructed;
- Focused drive to begin construction on all balance CT/PTs required as per the Mission targets.

Additionally, states and cities were requested to organize public functions to felicitate those communities / self help groups (SHG) who have successfully taken up the responsibility of operation and maintenance of CT/PTs in their areas, in order to motivate and inspire other groups and communities also to follow suit.

During this drive, urban local bodies (ULBs) took up various kinds of activities, and exhibited impressive initiatives. Across the country,

- 58 cities across 4 states were declared Open Defecation Free (ODF) through third party inspection during this fortnight.
- 7900 PTs were beautified with wall paintings by local artists.
- 1586 intensive triggering drives were conducted around Open Defecation (OD)-spots, with the help of 1506 swachhagrahis identified across cities.
- 9627 existing CT/PTs were audited for their infrastructure and functionality, and 8262 toilets were renovated and made functional.
- 1837 new CT/PTs were inaugurate during this fortnight, across the country, while construction was begun in another 1811 toilets.
- 952 public functions were held in states and cities to felicitate those communities/SHGs who have successfully taken up the responsibility of operation and maintenance of CT/PTs in their areas, in order to motivate and inspire other groups and communities also to follow suit; 1763 SHGs were felicitated.
- 911 public camps were held for distributing payment slips for individual toilets.

Some representative pictures from across the country are given below:



Ahmedabad-painting on PTs by school children



Chandigarh triggering drives



Bhopal world toilet day celebration



Community toilet painting at Dhanbad



Faridabad triggering drives near community toilets



Surat-pledge taking near PTs



NDMC third party inspection for Open Defecation Free (ODF)



Vizag- Inauguration of SANA bio-toilets



Navi Mumbai- Wall painting on PTs



Pune-triggering near OD spots

## SPECIAL CLEANLINESS DRIVE ORGANIZED BY MADURAI MUNICIPAL CORPORATION

A special cleanliness and 'No Plastic' drive was organized by the Madurai Municipal Corporation around one km area of Meenakshi Temple in Madurai. The municipal commissioner and district collector also participated in the drive and strongly urged the public to use polythene which is below 40 Microns for protection of environment. Several Non- Governmental Organizations and school children also joined hands with the Corporation in their endeavor of making general public aware of harmful effects of polythene on human and animal life and environment.







### PILOTING A BEHAVIOR CHANGE MODEL TOWARDS SAFE WASTE MANAGEMENT

### **Saksham Singh & Team**

Pandit Deendayal Petroleum University (PDPU) is situated in Gandhi Nagar district of Gujarat. It is around 100 acres in size and is home to almost 3500-4000 students and a 500 member staff. With a vision of building a social fabric of environmentally conscious behavior with a focus on reducing, reusing and recycling of waste, the team of student volunteers and the housekeeping staff of PDPU launched a mission to initiate waste segregation and quantification making our community aware about our consumption and building empathy towards our shared resources and the environment.

Saksham Singh along with his team took different roles and responsibilities and worked together with the housekeeping staff of the university to achieve the mission of creating a sustainable environment.

#### Waste Management practice being followed earlier:

- No waste segregation was being done.
- Every floor on campus has 3-4 dustbins. These dustbins are emptied each time they reach full capacity. This frequency ranges from daily to once every two days.
- The waste from these dustbins is collected in a larger capacity dustbin and then emptied in the waste collection van. This van collects the waste from various parts of the campus at specific times. Sometimes, dustbins are emptied directly into the van or their contents emptied into a plastic bag and then dumped in the van.
- The waste is then dumped alongside the other waste near the Sabarmati river.

#### Challenges:

- The waste was dumped and burnt near the bank of Sabarmati river, leading to harmful emissions into the environment. The cattle grazing near the dumping site were feeding on all kinds of waste including plastic bags.
- The mechanism was not decentralized and hence, there was only one collection point in the university.
- The housekeeping staff were not being provided any safety equipment such as gloves, shoes etc.
- The cafeteria area was not well managed, students usually did not bother throwing their waste in the garbage bin and left it on the tables.
- The dustbins had very low density and did not have collection bags, which made it difficult to empty the bin once it was full.

### Objectives of the project:

- To initiate segregation of waste without additional procure-
- To make the community aware about effective waste management, and promote behavior change.

#### **Action Plan:**

- Initiation of Segregation of Waste
  - o To identify the number of dustbins needed at various places, frequency of people visiting different areas was ascertained, so that the total number of dustbins could be distributed effectively.
  - o A floor plan was made and color coded dustbins were distributed accordingly.



- o To incentivize those who displayed the ideal behavior, incentives like badges and coupons were given.
- Local reduce, reuse and upcycling of waste
  - o With help from various student bodies functional on the campus, a 'waste-o-meter' was formed and awareness programs were held on campus which helped nudge people towards reducing excessive and unconscious
  - o Depending on the kind of waste generated, emphasis was laid on reuse of waste.
  - o This concept involved participatory local recycling and upcycling of items which were later sold back to the community.
- Community Waste Bank
  - o The Waste Bank was the nodal agency responsible for creating upcycled products and managing monetary incentives for the community. The individuals responsible for running it were decided by the Waste Management Team.
- **Waste Rating Events** 
  - o Any event that took place on campus was rated on how waste friendly was it basis certain parameters such as, amount of plastic waste generated, amount of food wasted etc.
- Feedback
  - o After end of 45 days, a review of the work and processes was done and feedback was taken from all stakeholders. Basis the ideas received, the changes were incorporated.

- End cycle of waste (after 60 days)
  - o The Waste Management Team was responsible for converting the current waste cycle to the ideal waste cycle. This also meant that they identify the end cycle of the waste. Post 45 days, the generation data of was available which helped them understand the quantum of waste, based on which the end cycle was created. This was done
    - Incineration of Medical Waste
    - Tie up with local recyclers for buying Plastic Waste
    - Ensuring waste is not burnt or dumped
    - Treatment of Organic Waste

#### Conclusion:

This model will assist educational institutions in moving from current waste practices to ideal waste practices in an accelerated way with the involvement of the community. The initial time period for the establishment of the model requires 60 days post which the community will start developing waste consciousness. The main advantage of this model is that the community will be actively involved in these processes through an established feedback communication mechanism in the form of the waste 'o' meter. Incentivizing waste conscious behavior and upcycling of waste will help increase the value of waste. This places importance on the local reuse and recycling of waste. The community will also be able to chart their course forward in not only increasing awareness about waste but also moving forward towards establishing a green economy and a green campus.

## USING THE GARBAGE LYING ON THE OUT SKIRTING OF DELHI IN THE **GHAZIPUR LANDFILL SITE FOR CONSTRUCTION OF NATIONAL HIGHWAY**

Ministry of Urban Development (MoUD) signed a memorandum of understanding (MoU) with the ministry of road, transportation and highways (MoRTH), East Delhi Municipal Corporation (EDMC) and National Highway Authority of India (NHAI) for the use of solid waste in road constructions on national highway. MoU will allow NHAI to extract the garbage and use it for construction of 82 km stretch between Delhi to Meerut, NH-24. The work is expected to start by the end of December and is expected be completed within 21 months. EDMC will be used in the widening of NH-24 that is to be widened from four lane to sixteen lane. If this successful, solid waste will be used in road construction on national level.

NHAI approached the Central Road Research Institute (CRRI) to carry out a detailed study to investigate the possibility of using MSW material as an embankment fill. Accordingly, a proposal was prepared by the Council of Scientific and Industrial Research (CSIR) and CRRI to carry out study report in three phases the scope and objectives of which include-development of methodology for segregation, laboratory characterization, design, construction of experimental test tracks, instrumentation and monitoring.









## STATE-WISE STATUS OF IMPLEMENTATION OF VARIOUS COMPONENTS UNDER SBM UPTO NOVEMBER 2016





		Status of Municipal Solid Waste Management										
S.No	State & Cities/Towns	Individual Household Toilets			Community Toilets (Num- ber of Seat)		Public Toilets (Number of Seat)		Ward with 100%	Total Wards (Nos.)	Total Waste Generation	Total waste process-
		Appli- cation Received (Nos.)	Under Construc- tion	Complet- ed (Nos)	Under Con- struc- tion	Com- pleted	Under Con- struc- tion	Com- pleted	door to door col- lection (Nos.)		(MT/D)	ing (%)
1	Andhra Pradesh	333554	0	333554	4768	6490	1364	2890	3072	3455	6440	8
2	Andman& Nicobar Islands	115	40	0	64	0	5	0	18	24	100	35
3	Arunachal Pradesh	31027	2545	205	3229	0	586	0	18	42	181	15
4	Assam	225584	368	714	2000	10	2800	1948	92	888	650	10
5	Bihar	223804	110245	30168	540	200	126	273	2298	3321	14820	40
6	Chandigarh UT	24071	5120	18950	2016	687	7036	876	26	26	340	100
7	Chhattisgarh	330450	51833	193167	7479	1481	2370	2090	923	3232	1896	0
8	Daman & Diu	0	0	0	О	0	0	0	13	28	85	0
9	Dadra & Nagar Haveli	0	0	0	О	О	0	0	0	15	35	0
10	NCT of Delhi	11128	0	8	16551	4937	3008	2151	232	272	8400	52
11	Goa	5800	1936	874	70	20	100	20	192	192	183	52
12	Gujarat	564521	7030	555509	763	1628	1580	5435	1529	1572	9277	28
13	Haryana	100719	34587	14008	2351	961	338	185	412	1449	3490	25
14	Himachal Pradesh	4014	22	1503	О	О	19	30	167	502	300	25
15	Jammu & Kashmir	75174	3762	520	84	147	0	273	989	1163	1792	2
16	Jharkhand	227047	93271	54182	415	296	950	5	257	828	3750	15
17	Karnataka	308802	144665	111572	5455	1885	2060	1314	4146	5276	8784	40
18	Kerala	68760	5826	62929	0	0	0	0	1280	3536	1576	50
19	Madhya Pradesh	591164	469202	252800	14230	13050	0	0	4136	6999	5079	14
20	Maharashtra	587709	217965	222656	2472	1236	2864	1453	748	7054	26820	10
21	Manipur	23116	3280	235	30	0	140	140	130	315	176	50
22	Meghalaya	5066	84	0	15	8	163	7	6	114	268	58
23	Mizoram	4800	2500	2200	35	35	30	18	66	193	253	4
24	Nagaland	14235	8619	3680	226	70	0	0	19	234	270	0
25	Odisha	181606	97181	13494	2230	570	1810	150	1387	1975	2460	2
26	Pondicherry UT	8790	6569	2135	100	60	100	10	81	129	495	20
27	Punjab	126185	69983	26364	2915	85	1499	119	2544	3043	4100	10
28	Rajasthan	307842	173431	43828	4135	2280	3378	687	2010	5247	5247	16
29	Sikkim	1590	38	1550	8	8	0	12	4	48	49	0
30	Tamil Nadu	367222	201265	267973	14816	41861	870	2130	9182	12820	15272	16
31	Telangana	176625	111092	64232	92	265	779	735	1766	1967	6628	49
32	Tripura	16	0	0	0	0	0	0	0	244	407	0
33	Uttar Pradesh	2014960	159617	258367	5214	2331	2151	807	638	11290	19180	13
34	Uttarakhand	26948	21360	2150	1130	273	120	30	195	706	1400	0.7
35	West Bengal	127317	1265	121939	130	140	0	0	1360	2816	8675	6
	Total/Average	7099761	2003164	2664540	93563	81014	36246	23788	39936	81015	158878	21.45