



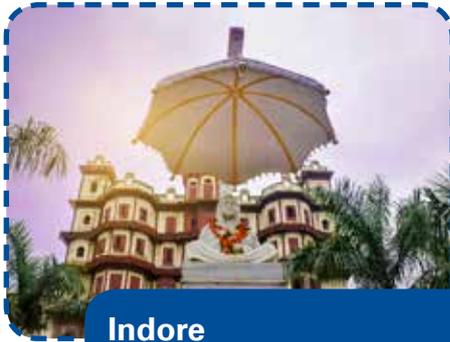
Cleaning urban India

Creating an enabling
environment for driving
large-scale change in Swachh
Bharat Mission-Urban (SBM-U)

November 2018

KPMG.com/in

Scripting 'swachhata' in urban India



Indore

Adjudged India's cleanest city in Swachh Survekshan 2017 & 2018



Ambikapur

Successfully converting trash to treasure through a decentralised waste management model



Jharkhand

Adjudged India's cleanest state in Swachh Survekshan 2018- Transformation from acute Open Defecation (OD) to an OD Free State



Chhattisgarh

Zero landfill state



Pune

Mainstreaming the marginalised sections towards a revolution in waste management



Visakhapatnam

Technology enabled elimination of garbage vulnerable points



The Challenge

India's rapid urbanisation and burgeoning population have greatly increased the challenges of Sanitation and Municipal Solid Waste Management. In 2014, only 19 per cent of the waste generated in the country was treated, the remaining was dumped in landfill sites creating huge problems for the environment.¹ As of 2009 India had the capacity to treat about 30 per cent of the total sewage generated of which only 22 per cent was actually being treated, the rest was being dumped in water bodies.² This has grave implications especially where faecal sludge is being dumped.

According to a United Nations report, 80 per cent of diseases in human beings are water – borne due to water pollution/contamination and water logging.³ According to the Ministry of Health and Family Welfare in India, as of 2014, more than INR 12 billion was spent every year on poor sanitation and its resultant illnesses such as diarrhea and other water borne diseases.⁴

Further, poor sanitation is one of the key causes for adolescent girls dropping out of school. An independent study conducted by UNICEF in India in August 2017 established that every Indian family can save about INR 50,000 annually if open defecation is eliminated.⁵

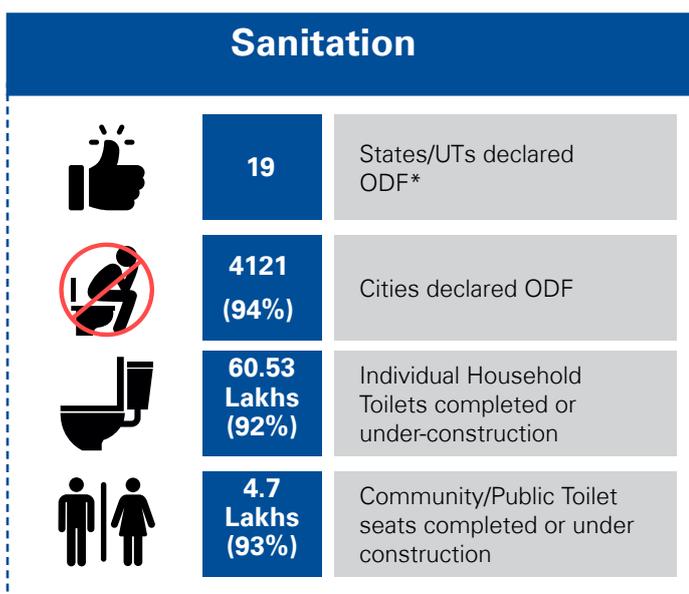
While there have been many rural sanitation programmes run by the Government of India, there were no schemes or programmes to address the issue of urban sanitation. In 2005, Government of India launched JNNURM to address infrastructural gaps including building of toilets in cities with population of 10 lakhs and above. The National Urban Sanitation Policy (NUSP) launched in 2008 provided broad guidelines for ensuring total sanitation in urban areas. However, absence of dedicated funding was a key drawback hindering its effective implementation.

SBM-Urban: Addressing the challenge

On 2 October 2014, on Mahatma Gandhi's 145th birth anniversary, Prime Minister Narendra Modi launched the Swachh Bharat Mission (referred to as the Mission), a mass movement with the objective of achieving a Clean India by 2 October 2019, the Mahatma's 150th birth anniversary. The urban component of the mission – Swachh Bharat Mission

(Urban) is being driven by the Ministry of Housing & Urban Affairs (MoHUA), and has two broad objectives: 1) All statutory towns in Urban India to become Open Defecation Free (ODF) 2) 100 per cent Scientific Management of Municipal Solid Waste in all statutory towns.

Achievements under SBM-U



*As per SBM-U National MIS Data dated 1st November 2018

1. Report of the Task Force on Waste to Energy (Volume I). Planning Commission. 12 May 2014
2. 78% of sewage generated in India remains untreated. Centre for Science and Environment and Down To Earth magazine. 06 April 2016
3. UN Press Release dated 16 May 2003
4. Forgotten voices The world of urban children in India. Save the Children and PwC. 12 May 2015
5. Financial and Economic Impacts of the Swachh Bharat Mission in India. UNICEF. 23 May 2018

Enablers of change

1 Robust Monitoring and governance Systems

From standardization to sustainability

Rigour in progress monitoring, competition amongst states and cities to improve their performance in key cleanliness parameters, and governance systems aligned to Mission objectives, has helped ensure standardisation of outcomes, and the focus has shifted from measuring outputs to tracking outcomes, along with their long-term sustainability.

Competitive frameworks to motivate cities to achieve higher degrees of cleanliness

- **Swachh Survekshan** – One of largest sanitation surveys in the world ranking cities on the basis of their cleanliness status, fostering a spirit of healthy competition among cities. The number of cities participating in the survey has increased from 75 in 2016 to 4200+ in 2019
- **Star Rating Protocol for Garbage Free Cities** – a single-metric system to enable a holistic evaluation of the entire SWM value chain in line with the SWM Rules 2016

Day long workshops are carried out at the state level to apprise cities on these competitive frameworks. During these workshops the capacities of city officials are built on the best practices in the country as a means to showcase how they can score better and emerge as winners in the competition for a Clean India.

- **ODF/ODF+/ODF++ Protocols** have helped to benchmark the key parameters cities need to comply with in order to declare themselves ODF, ODF+ and ODF++
- ODF Protocol - outlines the infrastructure and regulatory conditions necessary to be achieved before declaring a city/ ward as Open Defecation Free

- ODF+ Protocol – focuses on sustaining community/public toilet usage by ensuring their functionality, cleanliness and maintenance, and usability for all categories of users (women, children, transgenders, differently abled and elderly)
- ODF++ Protocol – focuses on achieving sanitation sustainability by addressing complete sanitation, including safe containment, processing and disposal of fecal sludge and septage

Tools for progress tracking and decision making

- **Development of a national MIS portal** – to capture the physical and financial progress of all states and cities across the country. On a monthly basis states and cities are to report progress on key indicators on which success of the mission rests.
- **Monthly video conferences with states** – to evaluate progress on key SBM indicators. The state MIS data is analysed and comparative analysis is provided to states on their position in the movement towards a clean India

2 Bespoke policies and regulatory framework

Proactive approach to changing market needs

The Swachh Bharat Mission-Urban (SBM-U) has led to various policy interventions for strengthening solid waste management and sanitation systems, to create markets for the by-products of waste management and bridge existing gaps in sanitation.

Policies to improve marketability of by-products of Solid Waste Management

- **Waste to Compost** – Market Development Assistance of INR 1500/ MT for sale of city compost
- **Waste to Energy**-Mandatory purchase of power produced from all the Waste to Energy plants by State DISCOMS at a tariff determined by the appropriate electricity regulatory authority
- **Construction & Demolition (C&D) Waste** – Standards for Recycled debris, aggregate and their usage
- **Waste plastic in road construction** – Waste plastic to be used with bituminous mix for construction/repair of all roads within 50 kms. periphery of urban area having population more than 5 lakhs
- **Refuse Derived Fuel** – Replacement of at least 15 per cent of cement industry fuel intake by Municipal Solid Waste based SCF and/or RDF
- Waste processing capacity has increased to 180 lakh MTPA, from 95 lakh MTPA in 2014.

Policies in sanitation

- **Increase in sanitation funding** for North Eastern states
- **Urinals and public toilets** previously not funded are now included in the purview of Mission funding
- Provision for **mobile and eco-friendly toilets** on railway land to avoid human evacuation on the railway track
- **Launch of the FSSM policy** to provide a framework for safe handling of fecal sludge and septage. More than 7 states have notified the FSSM policy along with guidelines and operational policies to be implemented by their respective ULBs

Source: Swachh Bharat Mission-Urban portal dated 01 November 2018





3 Avenues for capacity building and knowledge exchange

Strengthening capacities for enhanced performance

SBM has created a number of platforms for knowledge exchange and sharing of best practices for capacity building of Urban Local Bodies (ULBs) and city managers.

Platforms for capacity building and knowledge exchange

- **E-learning portal** – an online educational portal where 150 best practices have been uploaded, in the form of training modules. More than 55,000 municipal staff have already completed 6 lakh courses on the portal
 - **Knowledge portal** – is a one stop shop for all advisories, guidelines, standard operating protocols, model RFPs
 - **National and state level workshops** – for dissemination of best practices and knowledge on various SBM components. Nearly 150 workshops have been conducted till date
 - **Exposure visits** – to support knowledge exchange between ULBs and to encourage the sharing of best practices. More than 50 exposure visits conducted
- More than 20 **advisories and SOPs** issued on various components of the Mission
 - **Handholding support through the deployment of resources** – to help states in the development of Detailed Project Reports and any other assistance needed for them to be able to avail funds allocated under the mission and achieve the Mission objectives
 - **Procurement support** through model RFPs, empaneling vendors on GEM, etc.
 - Facilitating **private sector participation** in sanitation and waste management through technology pilots, innovative models, and empanelment of experts



4 Focused citizen engagement

Creating a 'Jan Andolan' for collective behaviour change

Since its launch in 2014, the focus of the Mission has been to make it into a 'Jan Andolan' through proactive citizen outreach and engagement initiatives.

Integration of Swachhagrahis – Integration of Self Help Groups (SHGs), ASHA workers, Resident Welfare Associations (RWAs), informal waste pickers, school children, celebrities, etc. as Swachhagrahis or sanitation foot soldiers or ambassadors of the movement, to take the message of Swachhata across the nation. Nearly 74,000 informal sector workers have been formally integrated into the waste management value chain across the country, and provided livelihoods

Multi-media communication campaigns – for disseminating themed messages around 'swachhata' (cleanliness) through Audio- visual messages, thematic drives, collaborations with comic book publishers, newsletters, etc.

Swachhata Selfie programme on radio for showcasing cities' success stories

Income generation and women empowerment – Increasing number of states, e.g. Kerala and Chhattisgarh have employed women SHGs for Door to Door Collection, training of households on segregation of waste, etc. resulting in both employment and improvement in their economic status.

ICT Tools for citizen participation and behaviour change

Swachhata App – a grievance redressal app for citizens to post their complaints related to city cleanliness has crossed 8 million downloads and clocked over 14 million citizen complaints with a resolution rate of over 90 per cent. 2750 cities have been on- boarded on the App.

Google Toilet Locator App – Helps citizens spot public toilets from any point in the city. Over 33,000 toilets in more than 835 cities are accessible to citizens on Google Maps for navigation and providing direct feedback.

Swachh Manch – An online citizen engagement platform for citizens to showcase their volunteering activities and facilitate peer learning. 800 ULBs have been on-boarded on the Swachh Manch portal and have uploaded more than 25,000 events with total participation of 32 Lakhs citizens across these ULBs.

1969 Swachhata helpline launched to address citizens' queries on issues related to the Mission



Way Forward

As per a UN-WHO report (2014), every dollar invested in water and sanitation yields a return of USD 4.3 in the form of reduced health care costs for individuals and society.⁶ Further, achieving safe sanitation is one of the objectives of the Sustainable Development Goals (SDG), to which India is a signatory. The achievements of SBM-U thus far has demonstrated how creation of an enabling environment for change and adopting a multi-pronged approach to achieving objectives on Mission mode can help bring about large scale social change resulting in a better quality of life for all, including the economically weaker sections in our society, by: **positively impacting health** outcomes through reduction in vector-borne diseases; **providing enhanced livelihood**

opportunities and greater earning potential for rag pickers and other informal sectors ; ensuring dignity and safety of women and children, through improved access to sanitation facilities and **opening up entrepreneurial opportunities** in the waste management sector

It is very clear that the government has sought to put India on the road to swachhata, given the impetus and momentum around swachhata that has been garnered among city administrators and citizens alike. The next wave of SBM-U will focus on-



Ensuring the sustainability of ODF declared cities and moving cities towards ODF+ and ODF++

With 94 per cent of the cities having been declared ODF, the focus will be on the sustainability of the ODF status including moving cities towards ODF+ and ODF++. A large proportion of the septage and faecal sludge generated by cities still remains untreated and is disposed off in water bodies. A way has to be identified for its safe treatment and processing, in order to close the loop for safe sanitation. At the city level this would mean setting up systems for Faecal Sludge and Septage Management (FSSM)/ Faecal Sludge Treatment Plants (FSTP) or measures for co-processing through existing Sewage Treatment Plants (STPs) to prevent faecal waste from contaminating water bodies.



Accelerating the pace of implementation in Solid Waste Management (SWM) and Waste to Wealth

Significant efforts have gone into meeting the SWM objectives of the mission in the last few years. Even then only 40 per cent of the solid waste generated is currently being processed. While a number of innovative and game-changing Waste to Wealth policies (e.g. Subsidy for City Compost, C&D waste management policy, Plastic to road, etc.) and competitive frameworks (e.g. Star Rating protocol for Garbage Free Cities) have been introduced to close this gap, there is still a need to accelerate the implementation of SWM along with strengthening the regulatory and legal framework for its implementation on ground.



Creating new avenues for capacity building to address changing needs of the mission

Existing platforms for capacity building will be enhanced to address the changing needs of urban local bodies. Going forward, capacity building tools will be designed to carry messages of sustainable sanitation and accelerating the pace of implementation of solid waste management to reinforce the pace at which cities need to step up their game. Efforts will also go into enhancing the E-learning portal with new courses on these subjects.



Stepping up Information, Education and Communication (IEC) and behaviour change

Efforts will go into designing campaigns with a focus on minimising ODF slippages, responsible use of public infrastructure, focus on source segregation of waste, home composting by citizens, etc. Existing platforms for citizen engagement and behaviour change e.g. Swachhata Selfie, Swachh Manchh, etc, and convergence with other Missions for leveraging their line functionaries in disseminating 'swachhata' messages will be strengthened.



Strengthening monitoring and governance systems

Competitive frameworks such as ODF, ODF+, ODF++, Swachh Survekshan, Star Rating protocol for Garbage Free cities need to be institutionalised at the ULB level to ensure its sustainability beyond the mission period. Efforts in the final year of the mission will be towards strengthening these frameworks and MIS for continuous monitoring and tracking.

Urban India is well on its way to becoming Open Defecation Free. The focus of the mission will be on sustaining the momentum generated while developing systems for the treatment of human waste at the end of the sanitation value chain and accelerating the pace at which cities become

garbage free. As the positive outcomes accelerate, it is expected that a Swachh environment will lead to a **'Swachh, Swasth, Samarth, and Samriddh'** Bharat and pave the way for a New India.



KPMG in India is the national Programme Management Unit of SBM-Urban and has been closely involved with MoHUA in the day-to-day implementation of the mission. This case study is a documentation of KPMG's experience and provides insights into our role of having worked with the government in the implementation of the project in the last four years.

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