

## India's Swachh Bharat Mission: A review of its Major Initiatives and Implementation Outcomes

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**Abstract**— This paper is an attempt to document the status of implementation of Swachh Bharat initiatives and its outcomes across states in India. Swachh Bharat Mission was launched as an initiative by the Indian Government on 2nd October 2014 as a part of the sanitation and cleanliness drive across the country. The paper gives a thorough survey about Different exercises embraced under those Swachh Bharat activities in the country Furthermore urban zones over states Previously, India. The data used for the paper have been collected from the official sources of government of India and other documents and reports available in the public domain, including media reports. The programme implemented seemed to be highly cost-beneficial from multiple perspectives, such as financial, economic, social and environmental. The economic benefits have been observed to be realised in terms of reductions/ savings in costs of healthcare expenditure in the rural and urban households due to: (a) improved economic and health status arising from improvements in sanitation conditions; (b) achievement of ODF status in most rural and urban areas; (c) control of communicable/ water-borne diseases; (d) improvements in nutritional status of rural households, especially, women and children; etc. Nevertheless, many of these impacts need further confirmation in terms of state-wide surveys/ indepth studies involving representative household samples drawn from both the rural and urban areas along with a proper identification of control groups of households.

**Keywords**—sanitation, anganwadi, defecation, waste management, solid waste, cleanliness, Swachh Bharat Mission, hygiene, toilets, health, cleanliness

### 1. INTRODUCTION

Swachh Bharat Mission (SBM henceforth) is an initiative launched by the national government in India (under the aegis of Ministry of Drinking Water and Sanitation) in 2014, which is aimed at achieving high levels of sanitation, solid waste treatment and cleanliness. The more specific objective of the Swachh Bharat Abhiyan(SBA) is to make India an 'open defecation free country' by October 2 2019, and offer this achievement as a tribute to Mahatma Gandhi, the father of nation on his 150<sup>th</sup> Birth Anniversary. A national mission by name, Swachh Bharat Mission (Gramin) and the Swachh Bharat Mission (Urban) was launched on a large scale, to facilitate the speedy implementation of the SBM both in rural (SBM-Gramin) and urban (SBM-Urban) areas respectively, so that the sanitation programme gets a universal coverage nationwide. The essential targets of the SBM-Gramin are: (a) will realize a change in the general personal satisfaction from claiming existence in the provincial areas, Eventually Tom's perusing pushing cleanliness, cleanliness and eliminating open defecation; (b) with quicken sanitation scope clinched alongside rustic

regions with attain the dream of Swachh Bharat by second october 2019; (c) should rouse groups to receive reasonable sanitation hones and offices through consciousness production Also wellbeing education; (d) should urge expense viable Also proper innovations for ecologically protected What's more reasonable sanitation; (e) on develop, wherever required, Group figured out how sanitation frameworks centering ahead experimental Solid. The main aim of SBM-Gramin were : (a) Bring more changes in quality of life in the rural areas, and create an awareness about cleanliness, hygiene and complete eradication of open defecation; (b)To improve the sanitation coverage in rural areas to achieve the vision of Swachh Bharat within 2nd October 2019; (c)Asking the communities to follow and maintain a sustainable sanitation practices and facilities by creating an awareness and education on health (d) motivation to adapt cost saving and use technologies that helps in saving ecology and sustainable sanitation; (e) to establish community managed sanitation systems giving more focus on Solid & Liquid Waste Management systems for cleanliness in the rural areas scientifically and (f) to bring out a impact on the gender and generate social inclusion by improving sanitation in marginalized communities.

An approach was adopted for the implementation of SBA was to generate demands for toilets, expedite their constructions and promote the regular use by the households who lacked such facilities in the urban and rural areas. In India, a sizeable number of population in the most populated states, still lacked access to toilets, which left these people but to go for open defecation, causing several health problems. Illiteracy rate being quite significant in many of the states, a major segment of the population is not aware about the health issues due to open defecation. The extreme levels of poverty make them incapacitated to construct toilets on their own. Lack of adequate water supplies is yet another major challenge that creates an adverse impact on the sanitation conditions. Hence, in many ways, the SBA was welcomed by majority in the country as an essential step towards making India clean and free from health related hazards caused due to open defecation and poor sanitation. Under the aegis of the national government, financial allocations have been made possible to the state governments for implementing the various schemes proposed for the Swachh Bharat Mission (SBM). It has been reported that ever since the launching of the programme, there was more than 60% increase in the number of household toilets constructed, which resulted in an increase

in the national coverage of toilets from 38.7% in 2014 to 98.9% in March 2019. Accordingly, as of now, more than 92.45 million new household toilets were constructed since 2 October 2014, with 55544 Open Defecation Free (ODF) villages, 616 ODF districts and 30 Open ODF states. The SBM plan helps you in adopting technologies which are cost-effective and appropriate which results in ecologically safe and sustainable sanitation and helps in developing wherever needed, even for the sanitation system managed by the community that focus on the managing of sanitation system in a systematic manner which helps in focusing on the scientific Waste Management systems for both Solid & Liquid in rural areas for the overall cleanliness.

#### A. Objectives, Data and Methods

In this backdrop, the present paper is an attempt to review the status of implementation of Swachh Bharat initiatives and their outcomes across states in India. As the five year programme will be nearing its completion by 2 October 2019, it may be important to make an assessment of the status of its implementation and the outcomes across states. The important objectives of the paper are to:

- (a) Understand the important activities proposed under the SBM initiatives in India;
- (b) Examine the status of implementation and outcomes of various SBM activities across states; and
- (c) Bring out the important lessons learnt from the analysis, the challenges affecting the implementation and suggest some measures to address the policy gaps based on the analysis

The paper is based on secondary data gathered from the official sources of the SBM [(Ministry of Drinking Water and Sanitation, Government of India (MDWS)] and other relevant line departments which also have been engaged into the implementation of various schemes. The data/information are also sourced from various other sources available in the public domain, including the media reports, perception and opinion surveys, etc. The remaining paper is organised as follows. Following this Introductory, the next section (2) elaborates on the various activities being implemented under the SBM across states involving inter-ministerial and collaborations which are inter-sectoral.

## II. SWACHH BHARAT MISSION INITIATIVES AND THE SPATIAL SPREAD OF ACTIVITIES

The Swachh Bharat Mission (Gramin) was implemented with the aim of bringing rural areas into an open defecation free (ODF). In this regard, there are several other activities that are implemented as part of it and these programmes have been implemented through into Inter-ministerial collaboration and inter sectoral collaborations. In what follows, we present the major action programmes being implemented involving inter-ministerial collaboration.

### A. Inter-Ministerial Collaboration

#### 1. Namami Gange

The river Ganga (Ganges) is considered as the holi river and it is regarded as one attains salvation at the end of life by taking a sip of the pure ganga waters. However, overtime the river waters has been suffering from pollution and chemical contamination problems through most of its course of flow across states, like Bihar, Uttarakhand, Uttar Pradesh, Jharkhand, and West Bengal. In this regard, one of the major initiatives launched have been to clean the river waters and also make the villages located along the river banks ODF. The implementation is spearheaded by the Ministry of Water Resources and its main motive is to make the villages near ganga open defecation which handles liquid and solid waste management which is installed in around five states which covers free handling in solid and liquid waste management implemented across the five states covering more than 4000 villages on the banks of the river Ganga.

#### 2. Swachh Swasth Sarvatra (SSS)

A joint initiative between the MDWS and the Ministry of Health and Family Welfare, which aims to build an achievements for two complementary programme Swachh Bharat Mission and Kayakalp. This programme (Kayakalp) focus on implementation of water sanitation and hygiene (WASH) measures in selected hospitals, ODF in all the centres for health care, higher sanitation training for doctors and health care employees so that they can educate the common people around them. Actions are aimed to reinforce health centers in open defecation-free blocks. Main objective is to strengthen community health centers in 708 open defecation-free blocks around the country and to empower them attain higher levels of cleanliness and hygiene. Under Kayakalp one primary Centre was opened at each district awarded for maintaining quality standards.

Table 1 presents the important changes in the status of ODF across states in India since the programme was launched in 2014. Accordingly, we have classified the 35 states in terms of percentage achievement of each and every state during the four-year period 2015-16 to 2018-19 (as of 20 March 2019). The results show that the status of states in terms of ODF had significantly moved up following the launching of the SBM in 2014 with the percentage of states with achievement of more than 75% in the construction of toilets increasing from 2.86% (2015-16) to 17.1% (2016-17), 54.3% (2017-18) and 88.6% (2018-19). This is certainly a commendable achievement and shows the rapid acceptance of the programme across states.

TABLE 1: Percentage achievement in ODF across states from year 2015 to 2019

% Achievement	2015-16		2016-17		2017-18		2018-19	
	States #	(%)	States #	(%)	States #	(%)	States #	(%)
< 25 %	32	91.43	19	54.3	8	22.9	1	2.8
25 - 50%	1	2.86	7	20.0	6	17.1	1	2.8
50 - 75%	1	2.86	3	8.6	2	5.7	2	5.8
> 75%	1	2.86	6	17.1	19	54.3	31	88.6

Source: Estimated based on SBM data source on Open Defecation Free status.

### 3. Swachhata at Petrol Pumps

The Petroleum Ministry came up with concept with the objective of clean petrol pumps with basic toilet facilities provided to promote cleanliness and hygiene. Clusters of toilets were also constructed at the petrol pumps. The Ministry developed a mobile app for Swachhata@PetrolPump. With the help of the tracking tool provided by the mobile app, people are able to track the cleanliness of the toilets at the retail outlets, this enable to ensure transparency and fairness throughout the whole process. A really check with the picture of toilets, the users can show the extent to which the toilets are well-maintained or not, and also enable to the track the status of the complaint. The Ministry of Petroleum & Natural Gas (PNG) has received the Swachh Bharat National Award for Swachhata Action Plan (SAP) 2017-18. The Minister of PNG allocated a budget of Rs. 335.68 crore for SAP 2017-18, while the expenditure incurred was around Rs. 402 crore, showing an excess of around 20%.

### 4. Swachhata pakhwada

Swachhata pakhwada was started in April 2016 with the objective of bringing a fortnight of intense focus on the issues and practices of Swachhata by engaging Government Of India Ministries/ Departments in their jurisdictions. The Ministries observing Swachhata Pakhwada are monitored closely using online monitoring system of Swachhata Samiksha where action plans, images, videos related to Swachhata activities are uploaded and shared. For the Pakhwada fortnight, observing ministries are considered as Swachhta Ministries and are expected to bring qualitative Swachhta improvements in their jurisdictions.

During 2016, all the 103 Indian Council of Agricultural Research (ICAR) Institutes and 648 Krishi Vigyan Kendras (KVKs) observed and conducted Swacchta Pakhwada all over the country from 16th – 31st October 2016, All ICAR Scientists, staffs, student’s, farmers and common citizens involved in the on campus and off campus cleanliness activities and conducted many seminars, awareness campaigns, Melas etc, on relevant topics. During 2017, the Central Sheep and Wool Research Institute (CSWRI) Avikanagar took the lead in launching the “Swachhata Abhiyan Pakhwada” in the campus from 16th May to 31st May 2017. Based on Mahatma Gandhi’s vision “Sanitation is more important than independence” the mission was launched. They initiated an appeal to keep the office and colony premises clean to avoid incidence of diseases, which helps in making the environment clean, making all healthy. They also started a campaign to ensure cleanliness across all the places in the institute such as Dispensary, Sectors, School, Colony, Offices and Labs, etc.

### 5. Swachhata Action plan

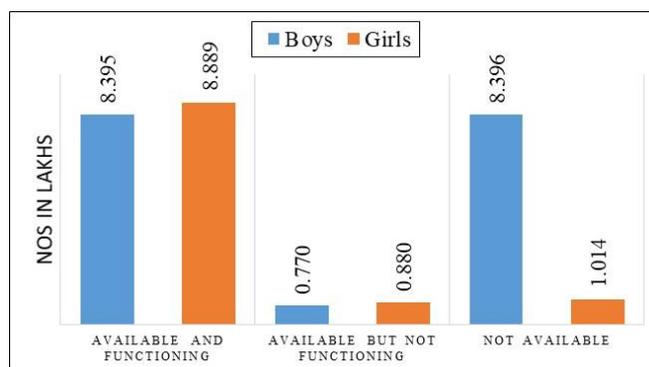
The Swachhata Action Plan (SAP) was launched in 2017 with a mission that Swachhata is everyone’s business. SAP is a milestone initiative in mainstreaming Swachhta elements across all sectors of the Government in an elaborate, accountable, and sustained manner to realize the Swachh

Bharat vision and the dream of the father of the nation. During the fiscal year 2017-18, the various departments of the ministers have committed funds worth 5247.13 crore for SAP. To analyse the implementation of SAP, a web based portal [www.swachhataactionplan.com](http://www.swachhataactionplan.com) was created. The object behind this portal is to highlight the contribution by 76 Ministries/ Departments of Govt. of India. Progress in implementation of Swachhata Action Plan can be tracked and monitored by MDWS, the Committee of Secretaries, Cabinet Secretary and the Prime Minister's Office. Annexure 1 presents the Ministry-wise/ Department-wise SAP activities being undertaken under the SBM initiatives. The SAP activities undertaken by the 71 Ministries/ Departments entailed a total budget allocation of Rs.16468.42 crores. During 2017-18, against an allocation of Rs. 18154.82 crores for the same, the utilisation reported was Rs. 12240.25 crores, showing a utilisation ratio of 67%.

### 6. Swachh Vidyalaya (School Sanitation)

‘Swachh Vidyalaya’ is the nationwide drive ‘Clean India: Clean Schools’. Its Objective is to promote learning and then develop and improve the sanitation systems quality and improve hygiene education in both community and school level. The main motive is to make sure that every school in India will have well maintained water, sanitation and hygiene facilities. Drinking water, hand washing, toilet and soap facilities in the school compound are the main components for practice by children and teachers, which will help to maintain their health and hygiene practices; of their families and the communities also; it also improves the teaching methods through sanitation and water supply. Hygiene initiatives in school creates a healthy school environment and avoid children from diseases and health problems. Mostly Girls drop out of school, because of unavailability of toilets and washing facilities, which is actually not safe or simply not available. Basic facilities that comprises of good hygiene and privacy, along with sensitive health promotion help girls to stay in school and complete their education.

FIGURE 1: Functionality of Sanitation Facilities in Schools in India



Source: U-DISE, 2013-14, NUEPA, New Delhi

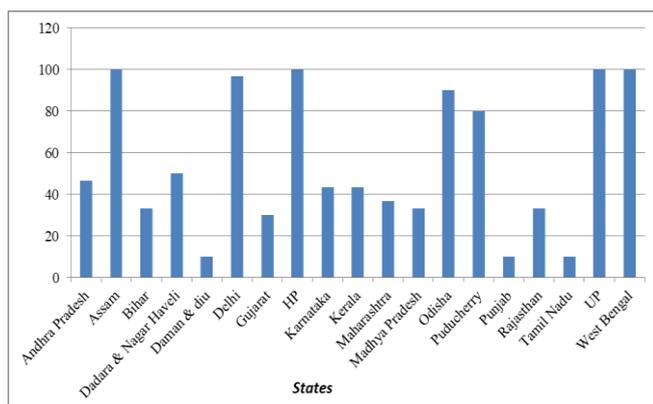
From Figure 1, it may be observed that though the functionality of sanitation facilities in terms of drinking water and toilet facilities, has improved since the launching of SBM, there are still scope for improving the status as the

number of toilet facilities not functioning as well as toilet facilities not available are quite significant for both boys and girls. It may be important to note that there is lack of dedicated funds for operation and maintenance, besides weak management and poor water availability inside the toilets, all of which contribute to dysfunctional, unusable toilets and the poor quality of construction and low compliance with standards and norms reduces the life of infrastructure. A study undertaken by the National University Of Educational Planninf and Administration(NUEPA) during 2013-14 reveals that 49% of the schools are without designated handwashing space. Further, the study also observed that almost 88% of the schools do not have provision for using soap or detergent for handwashing.

### 7. Anganwadi Sanitation

Over 24 lakh employees were employed in 12 lakh Anganwadis across India to assure the Swachh Bharat Abhiyan a great achievement. Anganwadi workers are the key representatives from villages, and they provide sanitation and cleanliness information to the district administrator and villages. They act as an intermediary between villagers and the government to help make the village clean and adopt hygiene habits. In this regard, the objective of this scheme is to provide some basic sanitation education for Anganwadi to promote health and hygiene facilities. The role of Anganwadi workers in Swachh Bharat Campaign, thus, is to teach and supervise the children to practice personal hygiene; check the children's cleanliness in the morning; educate the mothers about the importance and benefits of sanitation and encourage them to practice it in their daily life. Further, they explain to mothers the benefits of using a latrine and having one at home, encourage mothers to contact the Block Level Engineer, Sanitary Inspector or the Block Development Officer (BDO) for advice.

FIGURE 2: Anganwadi Centres having Rented Accomodation in selected States/UT's (as on February 2014)



Source: NITI Aayog/Planning Commission

From Figure 2, it may be noted that only seven states/ UTs have very high levels of sanitation facilities and hygiene conditions as attached to the Anganwadis and these states were Assam, Delhi, Himachal Pradesh, Odisha, Puducherry, UP and West Bengal. In many states, the facilities are much below 50%. In view of these poor status of many states in

terms of the facilities, the government thought it was important to change the behavior of children from the beginning stage of their life, so the Anganwadis have been used as a platform for making a change in the behavior of children and also of their mothers who are attending the Anganwadis. For this purpose, each Anganwadi was provided with a baby-friendly toilet and the unit cost for a toilet was Rs.5000, which was constructed for the Anganwadi or Balwadi in rural areas.

### 8. Railway Sanitation (Swachh Rail Swachh Bharat)

Indian Railways is one of the largest railway network of India, which plays a vital role in the development and growth of India. "Swachh Rail Swachh Bharat Mission", emphasizes on regular events towards cleanliness around the station premises. The core objective of this programme is to make sure clean and hygienic toilets, maintenance and cleanliness at stations, trains etc, besides tree plantation, removal of encroachments, maintaining drainage, awareness campaign and constant monitoring of the mission activities. Disposal of garbage is done by Municipal Authorities through incineration, dumping in identified landfill sites and composing pit etc along the rail lines. Hazardous waste is also disposed of as per extant statutory guidelines. There are series of activities that are proposed to be undertaken under the Railway sanitation, which include: (a) Improving flooring of platform to enable mechanized cleaning; (b) Providing blue green dustbins for different type of waste; (c) Providing dustbins in non/ AC coaches; (d) installing CCTV camera to maintain cleanliness practices; and (e) Development of better complaint portal for customers.

There are about 10000 railway stations across India and these stations are divided into 7 categories in terms of annual passenger revenue generated, the highest category being A1 generating more than Rs. 50 crores, followed by A (Rs. 6-50 crores), B (Rs. 3-6 crores), C (all suburban stations), D (Rs. 1-3 crores), E (less than Rs. 1 crore), and F (Halts). Assessors are allotted in different areas to observe the frequencies of different cleanliness activities. A Four-part survey was designed to assess the various activities. During the assessments many important cleanliness activities have been identified, prominent ones being: (a) Reduction of Plastic waste; (b) Personal hygiene at Railway Stations; (c) Outsourcing of cleanliness at Railway Stations; and (d) Awareness Initiatives.

A survey conducted in 2018 about the cleanest railway stations when compared to 2017 reported an improvement of 9% in the first 100 stations. It has also been observed that over the past four years of Swachh Bharat initiatives, Indian Railways has focused on improving cleanliness standards of its trains, toilets, platforms, waiting area and parking at stations with considerable improvements.

#### B. Inter-Sectorial Collaboration

Swachh Iconic Places (SIP)

This activity is being carried out with an initiative of focusing on cleaning up 100 iconic religious, cultural and

heritage places across India. The main aim of the project is to enhance the cleanliness condition of places to the maximum level. The project was undertaken in partnership with ministries of Tourism, Urban Development, and the culture with MDWS being the nodal ministry.

These SIPs have received technical and financial support from PSUs and corporates. A list of the major Iconic places being elevated as SIPs and the important sponsors of the cleanliness initiatives is given in Annexure 2.

### 1. Corporate Partnership

Government of India has set up Swachh Bharat Kosh as an initiative for big and small firms to become a part of social service by donating fund as a part of their corporate social responsibility initiatives. Accordingly, many public as well as private companies have come forward and supported the program Swachh Bharat Abhiyan and have started implementing. Table 2 presents the list of major activities related to cleanliness involving health, education, environmental protection and sanitation services as promoted by some of the leading corporate sector entities in India.

TABLE 2: Companies support and contributions towards SBM initiatives in India

No	Companies	Sector/ area of activity	CSR Spending (Rs. Crores)
1	Infosys	Health care and Education	239.5
2	Mahindra and Mahindra Limited	Health and Education	83.0
3	Gail (India) limited	Health, Education, Environment	41.4
4	Larsen and Toubro Limited	Sanitation, Education, Health	76.5
5	Tata steel limited	Education and Health care	171.5
6	Cochin shipyard Limited	Service	5.3
7	Bharat Petroleum Corporation Limited	Education, Employment and Health	34.0
8	Tata Consultancy Services Ltd.	Health care and Education	210.4
9	Indian Oil Corporation Limited	Tourism	113.8
10	ICICI Bank Limited	Health and Education	156.0

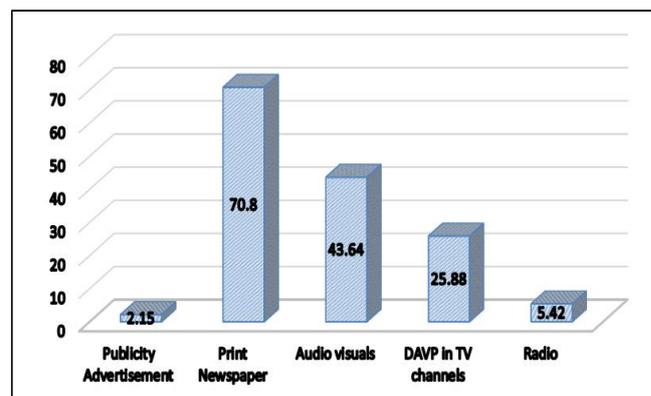
Source: India Society Blogs - Swachh Bharat Abhiyan: Corporates and CSR Play a Decisive Role

### 2. Media Engagement

As the fourth pillar of democracy in India, the media (both print and visual) has a major role to play by participating in Swachh Bharat Abhiyan campaign by promoting cleanliness and hygiene. They help in providing awareness to the general public through advertisements. The major sources are engaged into campaigning for the cause of cleanliness and sanitation ever since the launch of the SBM. The Swachh Bharat Mission maintains an active blog on wordpress called Swachh Bharat Mission (Gramin) Blog, which contains success stories, awareness campaigns and these are regularly updated.

Besides, there are mass media campaigns. Firstly, a campaign called, Darwaza Bandh Media Campaign, featured by Amitabh Bachan, promotes awareness creation for toilet use especially by men. Second, the Shaucha Singh Radio Campaign, which is arranged and initiated around a central character called Salesman called Shaucha busts age old traditions related to Open Defecation and aims at a drastic change in behaviour of people. Shaucha Singh educates, informs and creates mass awareness in Bengali, Telugu, Kannada, Marathi, Odia and Tamil on the importance of Safe Sanitation & ODF. Third, the Social media campaign on Thematic mobisodes, has been developed for smart phone users for addressing issues of sanitation, toilet usage, women dignity, twin pit toilet technology, health benefits etc. Figure 3 presents the extent of media influence in promoting the campaigns for various cleanliness initiatives launched by the SBM. It may be noted that the print media forms as the major source of campaign with advertisements in newspapers accounting for 71%, followed by audio visuals (43.6%), Directorate Of Advertising and Visual Publicity (DAVP) in TV channels (26%), radio (5.4%), etc.

FIGURE 3: Advertisements through different sources of Media



Source: The Balance Small Business Journal- The Different Types of Advertising Methods Available to You

### 3. NGO Relations

Various development agencies, especially, Non-Government Organizations (NGOs) plays an important role in Swachh Bharat Abhiyan. NGOs mainly focus on solid waste management by educating people about keeping their surroundings clean. The NGOs from every state are tied up together to work for Swachh Bharat Abhiyan. They take up certain areas or colonies/ settlements and take the responsibility of keeping the surroundings clean. They make house visits and ensure that people understand proper sanitation and garbage disposal practices, also visits schools to teach the kids about the importance of cleanliness in their daily lives. They take up the role of putting up small-scale units for collecting garbage and sorting/ segregating it into different components for processing and help societies, colonies setting up units for decomposing wet waste, water harvesting etc.

### C. Swachh Bharat Mission (Urban)

The Govt. of India launched the Swachh Bharat Mission (Urban), which is being implemented by the Ministry of Housing and Urban Affairs. India's urban population is 377 million, which may rise to 600 million by 2031. Around an 8 million households have no permission to use the toilets and practice open defecation in the urban areas as well. The main objective of the Swachh Bharat Mission (Urban) is to overcome this problem, along with eradication of manual scavenging, and promotion of modern and scientific municipal solid waste management. The major components of the SBM (Urban) include: (a) construction of household toilets; (b) community toilets; (c) public toilets and urinals; (d) solid waste management; (e) information, education and communication and public awareness; and (f) capacity building and administrative and office expenses.

#### 1. Household toilets

As a large segment of the urban households still are engaged in open defecation practices, the main of the SBM (Urban) is to provide all households with insanitary latrines. The two main ingredients for Household Toilets are the superstructure for toilets that includes water and pan closet, and also the substructure which has an on-site treatment system, or a connection to the prevailing underground sewage system. All household toilets being constructed under SBM will be implemented with proper water supply. The national government will provide Rs. 4000 in the case of household toilet for the identified beneficiary household, who will get the financial contribution directly deposited in to their account. Accounts were opened under the Pradhan Mantri Jan Dhan Yojana to transfer the amount. All the States contribution 40% minimum funds for the individual toilets and the rest 60% share is been contributed by the Central Government.

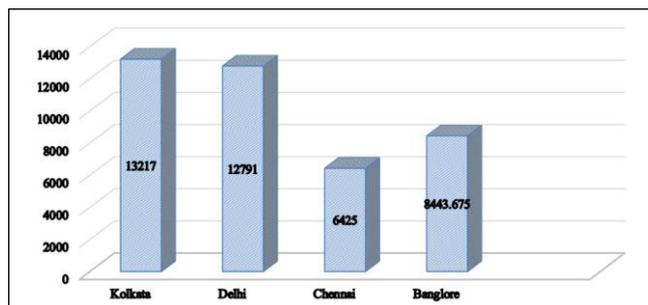
As per the 2015-16 data published by the National Family Health Survey (NFHS), a larger share of the urban population was without toilets and defecating in the open areas even in the four major states, viz., Mumbai, Kolkata, Delhi and Chennai. The study also reported that the implementation of SBM initiatives improved the situation with a rise in population having access to individual toilets from 37% in 2014 to 71% in 2018. These improvements have been driven with the construction of latrines rather than changes in behavior per se, reflecting that the cities grossly lack in terms of toilet facilities.

#### 2. Community Toilets

As per Swachh Bharat mission, 20% of the urban households in cities who practice open defecation are likely to use community toilets as a solution due to land and space constraints in constructing individual household latrine. In this regard, the SBM's initiative of 'construction of community toilets' seemed to be a well thought out one, which addresses to solve the problem of land and space constraints. Community toilet blocks will consist of a given number of toilet seats, as per requirements, toilet superstructure including the pan and water closet, and a

substructure shared by all the toilet seats and facilities for hand wash. The Criteria for Community Toilet include, one seat for both 25 men and 35 women, and also providing bath facilities which are separate for both men and women, and also separate toilet facility for the differently abled. All community toilets constructed under SBM have a minimum 5-year maintenance contract. Under the scheme, States will contribute 25% funds towards community toilet projects and central will provide the remaining 75 % share. As emerge from Figure 4, there is yet a huge gap between the sanctioned and community toilets across the major cities, especially, the four metros, viz., Kolkata, Delhi, Bangalore and Chennai.

FIGURE 4: Absolute Gap Between Sanctioned and Completed Community Toilets

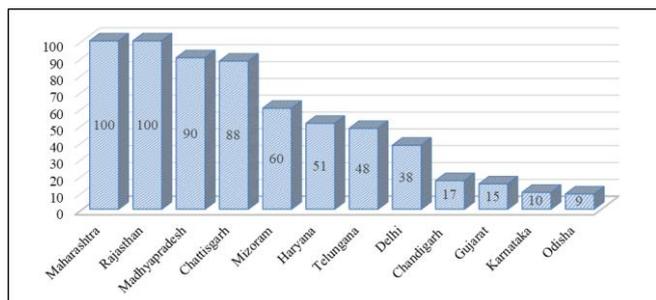


Source: Environmental and Social Systems Assessment (ESSA)- Swachh Bharat Mission - Gramin

#### 3. Public Toilets and Urinals

For the Urban Swachh Bharath Mission, all the states make sure that a specific number of Urinals and Public toilets need to be built in the city. This is for facilitating the availability and access to toilets in every public places for the convenience of people. All major/important places within the city should have attracting floating public toilets and urinals with proper water supply arrangements. For constructing such public toilets, the states will provide 40% funds, while 60% of the funds will be contributed by the Central government. These Public Toilets and urinals will have 5-year maintenance contract. Central government incentive for the construction of public toilets and urinals will be in the form of 40% Grant/VGF, for each toilet block constructed. The base unit cost of PTs will be calculated at Rs 98000 per seat, wherein the VGF/Grant will be upto 40% of the project cost (i.e. VGF/Grant of Rs 39,200 per seat). For urinals, base unit cost of PTs will be calculated at Rs 32000 per seat, wherein the VGF/Grant will be upto 40% of the project cost (i.e. VGF/Grant of Rs 12,800 per seat). This will be subject to overall state-wise funds envelope – sum of allocation under IHHL and CTs for the entire Mission period. Figure 5 presents the gap (%) in the completion of public toilets against the provision in many of the states. The gap reported is 88-100% in four states, viz., Maharashtra, Rajasthan, Chhattisgarh and Madhya Pradesh, while it is between 38-60% in the states of Delhi, Telengana, Haryana and Mizoram. Few states, such as Odisha, Karnataka, Gujarat and Punjab report reasonable level of achievement, where the gap between sanction and completion of public toilets is 9-17% only.

FIGURE 5: Gap Between Sanctioned and Completed Public Toilets (%)



Source: Waste Management - Swachh India: Guide To Solid Waste Management Rules 2016

#### 4. Solid Waste Management

Under the SBM (Urban), solid waste management (SWM) is promoted as an important action and the concept of municipal solid waste management has been implemented in the cities with the help of state governments. Solid waste management is a systematic process that includes segregation, primary collection, processing, recovery, treatment and final deposit of solid waste. States need to contribute almost 40% minimum fund for Solid Waste Management project and 60% of the share will be contributed by Central. Table 3 presents the allocation of funds for SWM under the SBM, which shows an increase in allocation over the years, while it remained more or less the same during the first two years.

TABLE 3: Yearly Fund Allocation for SWM under SBM (Till August 2017)

Year	Rs. (in crores)
2014-15	287.50
2015-16	286.46
2016-17	916.70
2017-18 (As of August 2017)	633.14
Total funds given for SWM under SBM	2126.23

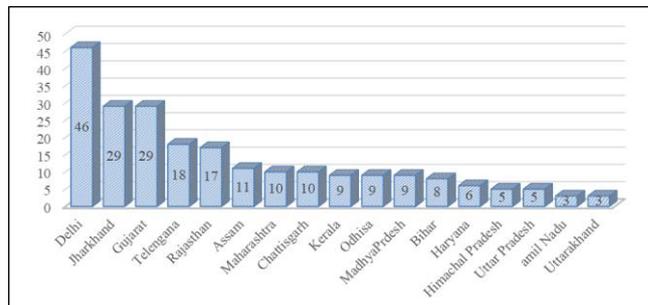
Source : GHG Platform India- Status of the Swachh Bharath Mission (Urban) and Implications on India's Solid Waste Emissions

#### 5. IEC (Information, Education and communication) and Public Awareness

Spread on topics related to public awareness gives a promise regarding proper communication among the general public largely by covering up the issues regarding open defecation, practices related to hygiene, proper use and maintenance of toilet facilities and its related health consequences. States prepare an annual action plan, with details of State funding commitment, for Public Awareness & IEC. At least 50% of the IEC fund in each annual plan, as approved by State HPC, must go to the ULB's for IEC activities at the grass root level. States will contribute a minimum of 25% funds towards IEC & Public awareness and 75% as Central Share

(10% in the case of North East States and special category states) in each annual plan.

FIGURE 4: Percentage of IEC mission allocations released across states (till 2018)



Source: Swachh Bharath Mission and NRDWP

#### 6. Capacity building and Administrative & Office Expenses (A&OE)

Under the SBM (Urban), an aggregate 3% of the Central Government support was proposed to be utilized for limit building, the managerial and office costs of States and ULBs. About 75 % of the aggregate Central Government reserves for the mission will be utilized for limit building, assembling national, territorial workshops, different honors and best practice acknowledgment, program look into, universal collaboration for limit building and innovation improvement, ULBs involves (both senior level authorities and field level functionaries) in this activity. It will be the duty of the State Mission Director to ensure that recognized authorities ought to experience sufficient limit building/preparing to guarantee the accomplishment of SBM (Urban). States will contribute at least 25% assets towards Capacity Building and Administrative and Office Expenses (A&OE) to match and Central will contribute 75% Share.

### III. SBM IMPLEMENTATION OUTCOMES: SOME LESSONS LEARNT

Table 4 presents the trends in the status of implementation of SBM and the resultant transition in the ODF status of major states across regions in India. As evident from the Table, in South India, Telangana state is an exception. Similarly, states, such as Jammu and Kashmir and Uttar Pradesh are showing lower levels of achievement in North India. In North and Eastern region, many states show poor achievement status, including the states of Odisha, Bihar, Tripura, Nagaland, and Jharkhand. Similarly, Madhya Pradesh appears to be an exception in Central India with an achievement status of 49%.

Identify applicable funding agency here. If none, delete this text box.

TABLE 4: Open Defecation Status of Different regions of India

ODF STATUS (IN %)				
SOUTH INDIA				
States	2015-16	2016-17	2017-18	2018-19
Kerala	0	100	100	100
Karnataka	6.04	25.09	73.86	100
Tamil Nadu	8.93	28.05	77.25	100
Andhra Pradesh	1.85	16.73	46.31	100
Telangana	7.3	17.71	40.31	63.18
NORTH INDIA				
States	2015-16	2016-17	2017-18	2018-19
Rajasthan	14.23	43.31	100	100
Jammu & Kashmir	0.13	1.36	14.9	100
Himachal Pradesh	51.5	100	100	100
Uttarakhand	8.65	86.69	100	100
Punjab	5.88	34.16	100	100
Haryana	15.97	93.85	100	100
Uttar Pradesh	0.21	6.06	22.62	100
NORTH - EAST				
States	2015-16	2016-17	2017-18	2018-19
Assam	0.58	2	38.62	100
Manipur	2.35	5.83	38.26	100
Meghalaya	32.81	60.75	100	100
West Bengal	18.71	48.1	79.47	95.61
Odisha	2.63	5.37	18.93	43.92
Sikkim	100	100	100	100
Mizoram	11.51	31.08	100	100
Tripura	0	0	1.61	100
Arunachal Pradesh	2.95	23.55	100	100
Bihar	0.42	3.59	10.38	68.6
Jharkhand	0.23	11.45	46.93	100
Nagaland	9.44	19.09	50.86	100
WEST INDIA				
States	2015-16	2016-17	2017-18	2018-19
Gujarat	18.18	82.08	100	100
Maharashtra	14.95	58.39	100	100
CENTRAL INDIA				
States	2015-16	2016-17	2017-18	2018-19
Madhya Pradesh	3.73	30.46	49.01	100
Chhattisgarh	10	66.12	100	100

The implementation outcomes of SBM is an important area needing indepth studies looking at the socio-economic and health related impacts of the same. Since the SBM initiatives are still underway, many efforts by policy analysts, researchers and the national and state-level agencies are yet emerging to understand and document the outcomes and their wider impacts to the economy and society. Incidentally, the UNICEF was requested by the

Ministry of Drinking Water and Sanitation to conduct a study to assess the economic impacts of the Swachh Bharat Gramin in rural areas. The UNICEF implemented the survey on a sample of 18,376 respondents representing 10,068 rural households, randomly selected from 550 Gram Panchayats across 12 states accounting for 90% of open defecation in India. The survey was carried out between 20 July – 11 August 2017. Some of the key findings of the study were that: (a) on an average, households in ODF villages accrued cumulative benefits of Rs. 50,000 per year; and (b) households with a toilet saw a property increase of Rs. 19,000; and (c) on an average, the total benefits exceed costs by 4.7 times for rural households.

In conclusion, the present paper discusses the major activities undertaken and implemented under the SBM (rural) and SBM (urban) initiatives launched by the national government in 2014. One of the important lessons emerging from the study is that the SBM has an immense potential in achieving the larger goals of 'Clean India' in the targeted time period of 5 years from 2014-2019. Many of the initiatives launched seem to progress well in terms of achieving the targets with immense support garnered through close collaboration between the national and state governments on the one hand and between major economic/ social sectors involving the civil society organisations as well as the corporate sector partners.

The programme implemented seemed to be highly cost-beneficial from multiple perspectives, such as financial, economic, social and environmental. The economic benefits have been observed to be realised in terms of reductions/ savings in costs of healthcare expenditure in the rural and urban households due to: (a) improved economic and health status arising from improvements in sanitation conditions; (b) achievement of ODF status in most rural and urban areas; (c) control of communicable/ water-borne diseases; (d) improvements in nutritional status of rural households, especially, women and children; etc. Nevertheless, many of these impacts need further confirmation in terms of state-wide surveys/ indepth studies involving representative household samples drawn from both the rural and urban areas along with a proper identification of control groups of households.

Based on the present assessment, we recommend that more indepth studies are required immediately after completion of the SBM period in October 2019, so as to come out with the wider impacts of the various activities implemented under the programme. These studies may have to be undertaken involving a rigorous methodological approach to delineate the distinct impacts of the SBM interventions in terms of ODF versus non-ODF households in most cases or other relevant criteria carefully set forth. It may be important to undertake such studies to come out with meaningful policies and further interventions in the future, as many of the SBM activities are also in close alignment with the sustainable development goals (SDGs) to be achieved by 2030.

Annexure 1: Schemes/Activities undertaken by Ministry wise Swachhata Action Plan (SAP)

S.NO.	UNION MINISTRIES/ DEPARTMENTS	SCHEMES / ACTIVITIES
1	Department of Agriculture, Cooperation & Farmers' Welfare	Development of Swachh and Waste Neutral Mandis
2	Department of Agricultural Research and Education	Clean Fish Markets and Agriculture Solid Waste Management
3	Department of Animal Husbandry, Dairying and Fisheries	Clean Farms & Clean Fish Markets
4	Department of Atomic Energy	Clean Office Premises and Adoption of Best Hygiene Practices
5	Ministry of AYUSH	Clean & Green Office
6	Department of Chemicals and Petrochemicals	ODF Villages Near Industries and Institutions
7	Department of Fertilizers	Bio-Waste Management System
8	Ministry of Civil Aviation	Better Sanitation Facilities in Airports, Adopted Villages and Schools
9	Ministry of Coal	Sanitation Facilities in Schools and Anganwadis in Coalfield Areas
10	Department of Commerce	Clean Plantation Estates
11	Department of Industrial Policy & Promotion	Clean Campus and Waste to Wealth
12	Department of Telecommunications	Clean Offices and Residential Areas in Five PSUs
13	Department of Posts	Clean Post Offices
14	Department of Consumer Affairs	Clean Consumer Fora
15	Department of Food & Public Distribution	Clean Premises & Contribution to Swachh Bharat Kosh
16	Ministry of Corporate Affairs	Corporate Portal to showcase Corporate Swachhata Initiatives
17	Ministry of Culture	Cleanliness through Folk Arts
18	Department of Defence	Swachh Sena Bhawan
19	Department of Defence Production	Cleanliness through Folk Arts
20	Defence Research and Development Organisation	Green and Clean Belt with Waste Management System
21	Ministry of Development of North Eastern Region	Institutionalizing Waste Management in North Eastern Region
22	Ministry of Earth Sciences	SLWM, Biogas & Green Energy
23	Ministry of Electronics and Information Technology	Waste Management System at all NIELIT / C-DAC & Paperless MeitY Office
24	Ministry of Environment, Forests and Climate Change	Strengthening of Eco-Clubs for Swachhata Initiatives
25	Ministry of External Affairs	Swachh Emigrants Offices, RPOs, Indian Missions / Posts Abroad
26	Department of Investment and	E-Office

	Public Asset Management	
27	Department of Expenditure	E-Waste Management
28	Department of Economic Affairs	Special Cleanliness Drive
29	Department of Financial Services	Clean Bank & ATMs
30	Department of Revenue	Mass Awareness, E-Office
31	Ministry of Food Processing Industries	Clean Mega Food Parks, Cold Chains and Abattoirs
32	Department of Health and Family Welfare	Clean Tertiary Care Hospital Facilities
33	Department of Health Research	Swachhata Awareness in Premises & Schools
34	Department of Heavy Industry	Waste Management and Pollution-free Electric Vehicle
35	Department of Public Enterprises	Setting benchmark by increasing CSR allotment for Swachh Bharat Mission
36	Ministry of Home Affairs	Waste Management system in and around the campus
37	Department of Higher Education	Solid and Waste Water Management in IITs, NITs, Central Universities
38	Department of School Education & Literacy	Swachh Vidyalayas
39	Ministry of Information and Broadcasting	Continuous and Intense Swachhata Campaign and Knowledge Sharing
40	Ministry of Labour & Employment	Swachh ESIC Premises
41	Department of Justice	Construction & Renovation of Toilet Facilities
42	Department of Legal Affairs	Sanitation & SWM
43	Legislative Department	Green and Clean Belt
44	Ministry of Micro, Small and Medium Enterprises	Clean Khadi Institutions and Offices
45	Ministry of Mines	Swachh Mines, Swachh Offices and Swachh Residential Complexes
46	Ministry of Minority Affairs	Sanitation Facilities in Institutions
47	Ministry of New and Renewable Energy	Generation of Green Energy from Biogas, Industrial and Agricultural Waste
48	Ministry of Parliamentary Affairs	Swachhata Campaign in Schools, Colleges and Universities
49	Department of Administrative Reforms and Public Grievances	Swachh & Green Office
50	Department of Pension & Pensioners' Welfare	Swachh & Green Office Premises
51	Department of Personnel & Training	Swachh & Green Office Premises
52	Ministry of Petroleum & Natural Gas	Swachh Iconic Places and Waste Management
53	Ministry of Power	Sanitation & Waste Management
54	Ministry of Railways	Swachh Tracks, Swachh Stations
55	Ministry of Road Transport and Highways	Clean Highways and toilets at all Toll Plazas
56	Department of Rural Development	Creation of Sanitation Infrastructure
57	Department of Biotechnology	Swachh Offices, Labs and Premises
58	Department of Scientific & Industrial Research	Swachhata Awareness Programme

59	Ministry of Shipping	Clean Major Ports and Port Sewage Treatment
60	Ministry of Skill Development and Entrepreneurship	Devising Standards for Sanitation Works
61	Department of Empowerment of Persons with Disabilities	Making provision for Divyang Friendly Toilets
62	Department of Social Justice & Empowerment	SLWM & Swachhata Awareness
63	Department of Space	Waste to Energy, Swachh Office & Residential Areas
64	Ministry of Steel	Clean Plants, Factories and Townships
65	Clean Plants, Factories and Townships	Clean Production Clusters
66	Ministry of Tourism	Improved Sanitation Facilities at Tourist Centres
67	Ministry of Tribal Affairs	Clean Office
68	Ministry of Water Resources, River Development & Ganga Rejuvenation	Cleaning Water Bodies
69	Ministry of Women and Child Development	Sanitation Promotion in Anganwadis and CCI
70	Department of Sports	Augmentation of Sanitation Infrastructure at Sports Facilities
71	Department of Youth Affairs	Waste Management System in Rajiv Gandhi National Institute

## Annexure 2: Swachh Iconic Places and the major PSU Sponsors

#	ICONIC PLACES	PSU SPONSORS
1	Ajmer Sharif Dargah, Ajmer, Rajasthan	Hindustan Zinc India Ltd.
2	CST, Mumbai, Maharashtra	State Bank of India (SBI)
3	Golden Temple, Amritsar, Punjab	Hindustan Petroleum Corporation Limited
4	Kamakhya Temple, Guwahati, Assam	Oil India Limited
5	Maikarnika Ghat, Varanasi, Uttar Pradesh	Northern Coal Field Ltd.
6	Meenakshi Temple, Madurai, Tamil Nadu	Bharat Petroleum Corporation Limited
7	Shri Mata Vaishno Devi, Katra, J&K	National Aluminium Company Limited (NALCO)
8	Shree Jagannath Temple, Puri, Odisha	Indian Oil Corporation Limited (IOCL)
9	The Taj Mahal, Agra, Uttar Pradesh	Gas Authority of India Limited (GAIL)
10	Tirumala Tirupati Devasthanams, Tirupati, Andhra Pradesh	Oil and Natural Gas Corporation & Neyveli Lignite Corporation India limited

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