

Monitoring Initiatives in Swachh Bharat Mission-Grameen (SBM-G) in Maharashtra

Maharashtra is third largest state in India in terms of geographical size and second largest by population. The total population of Maharashtra is about 112 million (Census 2011) out of which about 55% people reside in rural areas. About 30% of rural Maharashtra comprises of Below Poverty Line (BPL) families. Administratively, Maharashtra state is divided into six divisions comprising 34 rural districts. The districts further consist of about 352 blocks and 28, 813 Gram Panchayats (refer Exhibit 1)

Situation of Sanitation in Maharashtra

As per the baseline survey of 2012, about 48% households in Maharashtra had access to sanitation¹, as compared to the national average of 39%. Further, as per the MDWS reported data, toilet coverage for rural households was 60% for the state in Dec 2015, which has increased by 12 percent points from the baseline 48% in Nov 2012. The corresponding increase in Aurangabad has been by 15 percent points, from 28.3% in Nov 2012 to 43.1% in Dec 2015. Aurangabad has shown the highest percent point increase among all divisions in the state (refer Exhibit 2)

Aurangabad division² (also referred to as Marathwada region) had emerged as the weakest division, as about 76% households resorted to open defecation, the highest in the state. Based on discussions with Water Supply and Sanitation Department (WSSD), Government of Maharashtra (GoM), United Nations Children's Education Fund (UNICEF) decided to focus its attention on addressing the challenges within this division specifically, the districts of Jalna, Osmanabad and Latur were identified for UNICEF's focused support. UNICEF and WSSD designed and implemented several innovations in these districts starting from 2011 and still continuing. These innovations are related to Interpersonal Communications (IPC) under State Sanitation Hygiene Advocacy and Communication Strategy and district communication plans, Community Approach of Open Defecation Elimination Planning (ODEP), programme monitoring and institutional strengthening. These initiatives have evolved organically throughout the transition of rural sanitation programmes since 2011 till date and complemented the programmatic interventions of SBM-G. Majority activities were demonstrated in 8 districts of Aurangabad Division and Chandrapur District and were gradually scaled up across the state.

Institutional arrangements for SBM-G

State level: WSSD is responsible for overall coordination of the Mission. The Water Supply and Sanitation Organisation (WSSO), a special purpose vehicle has been established for overall coordination and monitoring of the implementation of SBM-G.

District level: Zilla Parishad (ZP) i.e. district governments are responsible for most of the rural development programs, including SBM-G. The District Water and Sanitation Mission (DWSM) Cell has been newly formed in every district to manage SBM-G.

Block level: The Panchayat Samiti supported by Block Resource Centres (BRC) (consisting of 2-3 professionals hired from market) implements SBM-G at block level.

Exhibit 1: Political map of Maharashtra

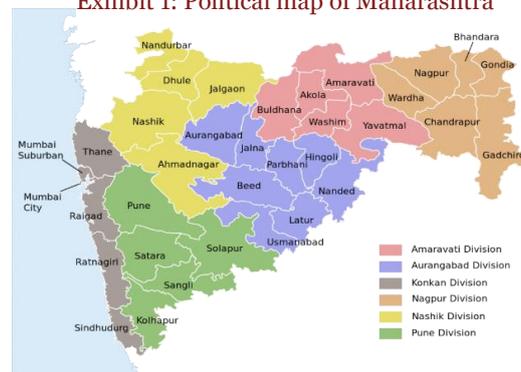
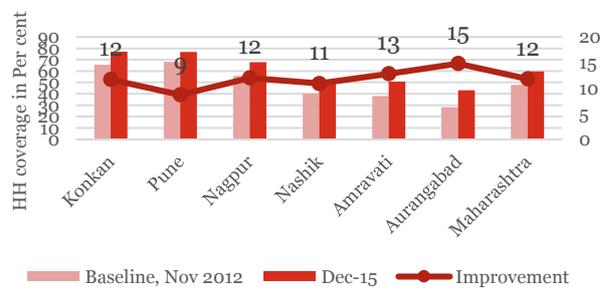


Exhibit 2: Division-wise Household Toilet Coverage in Maharashtra



Institutional Setup in Maharashtra

Maharashtra has unique, decentralised institutional setup for implementation of SBM-G and the mechanisms for implementing the initiatives have been integrated with it. It is supported by technical agencies for implementation. Technical support of UNICEF has been vital to incorporate systematic approaches, maintaining consistency in implementation of activities throughout the programmatic transitions in rural sanitation and effective replication and scaling up of initiatives up to state level.

¹ The rural sanitation coverage in 2015 is about 47%- Website of Ministry of Drinking Water and Sanitation, Government of India
² Aurangabad division consists of eight districts: Aurangabad, Beed, Hingoli, Jalna, Latur, Nanded, Osmanabad and, Parbhani

Gram Panchayat (GP) level: The Sarpanch, members of Village Water and Sanitation Committee (VWSC) and Gram Sevak drive the SBM-G activities supported by the FLWs like ASHA, Anganwadi Sevika, teachers, Self Help Groups (SHG), youth groups and other volunteers in the community.

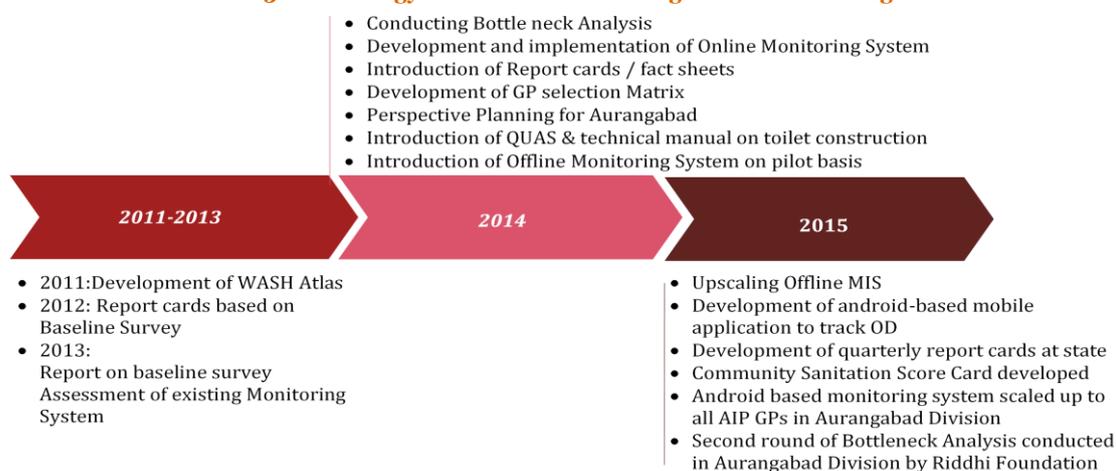
Technical Support: Total 105 Key Resource Centres (KRCs) (22 at state level, 83 at district level) have been hired by WSSD to provide specific technical support in implementation. Additional agencies were engaged by UNICEF to support in implementation of the initiatives³.

The Context

Monitoring of the rural sanitation program which was earlier done using the national Integrated Management Information System (IMIS) system managed by DWSSM had challenges in terms of recording of date of construction at village level, comparisons across areas and visualization of data. UNICEF and WSSD worked on these areas and developed the following innovations:

- i. Offline MIS registers
- ii. Fact sheets
- iii. Online MIS
- iv. Mobile based monitoring
- v. Quality Assurance System (QUAS)

Exhibit 3: Chronology of activities under Programme Monitoring



- vi. Community score cards.

The process of development of Monitoring tools and their implementation in chronological order is provided at Exhibit 3.

WASH Atlas, Reports on Baseline Survey and Bottleneck Analysis provide an insight in situation of sanitation

Wash Atlas: The WASH Atlas for the state was developed based on the sanitation data from Census 2011. It was done by using statistical techniques such as correlation analysis to project the trend for ODF status for each district and block based on the existing trend. This also presented the data through colour coded maps. This presentation made it easy for policy makers and key stakeholders to understand and visualize the ground situation. The Atlas became a useful tool for all the key stakeholders in: (i) knowing the condition within their region or district (ii) knowing their comparative position with other regions/ districts, and (iii) understanding the various issues that need their attention.

Analysis of Baseline Survey data and preparation of Divisional Report Cards: The Baseline Survey was conducted by GoM in 2012 based on national guidelines issued by MDWS for understanding the situation of access to toilet and water supply at HH level. The survey covered aspects related to access to toilets, with functionality, access to

³ (i) Riddhi Foundation, Kolkata engaged for developing and piloting monitoring systems with understanding of bottlenecks, (ii) PriMove, Pune for technical support in SBM-G implementation at State level with special focus on support in district approach and monitoring in Latur and Chandrapur, (iii) FINISH (Financial Inclusion Improves Sanitation and Health), Lucknow for piloting a holistic model involving supply chain and sanitation marketing linked with health insurance in Bhokardan block, Jalna (iv) Abhivyaakti, Nashik for assessing IEC materials and conducting IEC Training Needs Assessment, and (v) Innovations, Lucknow for formative research and developing IPC and Social and Behaviour Change Communication tools, resource material and games.

toilets in Aanganwadi Centres (AWC) and schools, access to water supply for households and institutions, availability of human resources and presence of other organisations working in sanitation at the village level. (Data is available in public domain on <http://sbm.gov.in/BLS2012/Home.aspx>). Based on this data, a report with detail analysis of situation of sanitation in Maharashtra was prepared by WSSO and UNICEF in 2013. This further led to preparation of report cards at state, Division, district and block level in Maharashtra. The report cards helped in understanding the gravity of situation of sanitation across the state and highlighted the areas for prioritizing the interventions through SBM-G.

Bottle neck Analysis: In order to identify the specific issues in sanitation sector, Riddhi Foundation was engaged to conduct a Bottleneck Analysis for the State and Aurangabad Division in 2014. Bottleneck Analysis Tools (BAT) were used for the study, which was conducted on sample basis in 8 GPs located in six blocks of three districts, namely Nanded, Osmanabad and Beed within the division. The findings of BAT report helped in identifying the issues, focus areas for interventions and in developing appropriate strategies for target areas.

Offline MIS designed, piloted and scaled up to all AIP GPs

The offline MIS was introduced for capturing and maintaining data related to progress in ODF activities in 2014. It was piloted in 52 GPs in Bhokardan Block, Jalna. Since it proved useful, it was scaled up to all AIP GPs across the state during 2015-16.



Benefits of Offline MIS

- Helps to maintain a village level database within village for micro level planning.
- Helps in reviewing the progress of the project and thus in further decision making
- Enables development of validated database for uploading on the Online MI System provided under Swachh Bharat Mission

The Offline MIS comprises of maintaining offline records of progress in IPC / ODF related activities in form of registers which are colour coded for ease of identification. The Offline MIS has following components:

- **Village level IHHL Progress Register (Green):** The progress in HH level toilet construction, monthly summary of progress, details of IEC / training activities conducted and key stakeholder details are recorded.
- **Village level Saturation Monthly Progress Report (Yellow):** It is based on the information made available through Village level IHHL Progress Register. The report gives the details of households with and without toilets at the end of month, targets for ODF vs achievement, disbursement of Incentive to eligible households during the month, list of households constructed IHHL during the month and issues to improve the campaign.
- **GP level Saturation Monthly Progress Report (Blue):** It is a consolidation of village level MPRs of villages falling within the GP jurisdiction and is an instrument to understand the status of saturation within GP community. It helps to understand the comparative status of different villages of GPs to concentrate its efforts and prioritize interventions.
- **Block level Saturation Monthly Progress Report (Brown):** It involves consolidation of GP level MPRs to understand the status of saturation within block. It is also used as a tool for review during monthly block level meetings.



Key findings of review of Offline MIS

A review of offline MIS was conducted by PriMove in 23 GPs from 8 blocks in Latur during September to October 2015. It was found that the MIS registers are being maintained (by Gram Sevaks) in the villages visited. Delay in updation of data in progress of toilet construction was observed in some villages. Regular monitoring of updation of registers by block / district level staff and follow-up for timely submission of MPR by Panchayat Samiti were recommended.



Monthly Progress Reports (MPR) introduced and used for review at district level

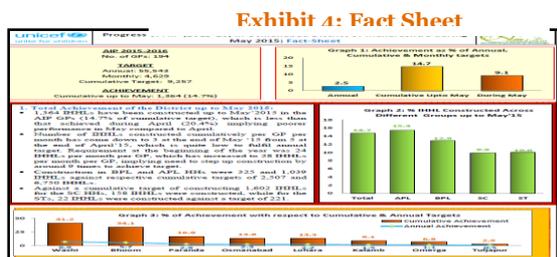
The MPRs are generated at GP, block and district level by collating the Offline MIS data. The MPRs are being used as a key tool for monitoring the SBM activities, especially for tracking the progress of ODF. The reports are found useful mainly at the block and district level for monitoring and reporting purpose.

The MPRs serves as a ready reference for understanding the status of activities and gap in achieving the targets. Also, the same data is used for the purpose of developing Fact Sheets and in other ad-hoc reports prepared for submission at state level as and when required.

Fact Sheets used for decision making at district, Division and state level

A Fact Sheet is a 3-4 page report consisting of analysis of offline data provided by the district. The data is presented through tables, charts and color-coded graphs. The report gives information about the achievement of annual, monthly and cumulative targets; IHHLs constructed across different groups during the given month; poor performing GPs; Percentage of saturation and the pace of progress, etc. A sample representation in a fact sheet is provided at Exhibit 4, and process followed for developing this is at Exhibit 5.

This is done initially for eight districts in Aurangabad division for a year with support from UNICEF which is now scaled up by WSSO for the entire state. In case of Osmanabad districts, a monthly GP- wise Fact Sheet is also prepared in addition to block and district level Fact Sheets. This has been developed by engaging Riddhi foundation, which also supports in analysis based on these fact sheets. This analysis is shared with the concerned districts on monthly basis



“The Fact Sheets are a good tool for decision making, especially because of representation of data in graphical form. We use these for reviews and also monitoring block-wise performance of the district in achieving ODF targets.

- CEO, ZP, Latur

Exhibit 5: process for developing fact sheet



Online MIS System introduced for Aurangabad Division

Online MIS is a web-based monitoring system to monitor the status of toilets at block and district level. The system has three modules: Charts; Thematic Maps and Block Ranking on Achievement. A variety of charts and maps can be generated by the users at block and district level based on indicators of choice (e.g. demographic indicators, availability and construction of toilets, physical progress in toilet constructions, saturation status, etc.) for specific range of month / year. The data required for the system is updated on monthly basis from the MPRs sent by the districts. The data is checked for feasibility and consistency, fed into the system and analysed. The data is then presented through thematic maps, charts and graphs on www.nirmal.washgis.org. An indicative visual representation of data in the online MIS is provided at Exhibit 6.

Benefits of Online MIS

- The maps enable visualization of absolute & comparative performances along with shortfalls for all districts and blocks.
- This makes it easier to internalize the extent & nature of failure, and also the locations which need more attention.
- The system helps both the decision makers and implementing officials to judge performances and design interventions for improvement in implementation of the program.

Exhibit 6: Visual representation of data in Online MIS

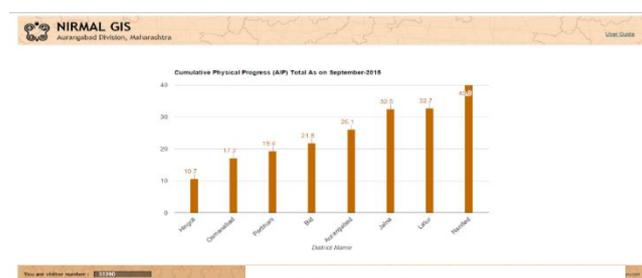
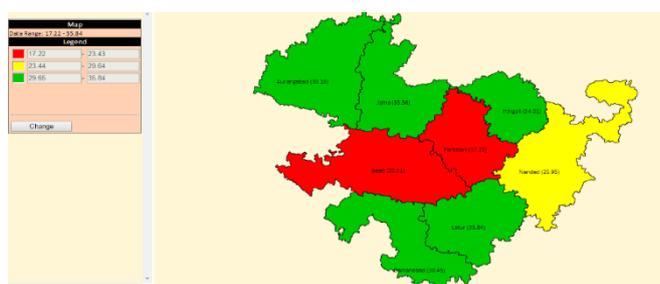
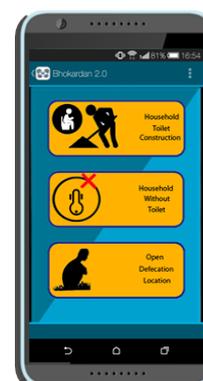


Exhibit 7: Android based platform

Android-based real-time monitoring system piloted in Bhokardan

The system provides real time monitoring of toilet use and open defecation sites in the villages and is being piloted in 10 GPs of Jalna district (Bhokardan block). The application works on a regular smart phone which is GPS enabled and requires internet connectivity to capture real-time pictures of toilets. The data captured can be viewed on an online system (www.bhokardan.washgis.org) as shown in Exhibit 7.



Advantages of Mobile-based Monitoring:

- The unique feature of the system is the GIS backbone. The GIS shows location of individual households in each revenue village of a Gram Panchayat. Such a map is likely to work as a strong advocacy tool for community awareness
- The system captures geo-tagged real-time pictures of sanitary toilet. It also captures details of construction type, whether the same is in use or not and in case the toilet is not being used, the reason thereof
- The system helps in evidence based monitoring of SBA and the supervisors can easily visualize the failures for taking corrective measures
- The traditional defecation sites can also be photographed and uploaded to verify if these places are clean as a proof of stoppage of open defecation.
- The system also generates a number of reports on the toilet construction which can be downloaded in Excel formats for ready reference.

Quality Assurance System (QUAS) helps in monitoring quality of toilet construction:

To overcome the problems of technically incorrect and dysfunctional toilets, QUAS was launched on pilot basis in four districts of Aurangabad division (Aurangabad, Jalna, Beed & Osmanabad) in August 2014 with following objectives:

- To ensure construction of toilets as per the technical requirements
- To equip the concerned staff of SBM at state, district & block level & KRC representatives with the necessary knowledge inputs
- To establish a technical backup system for quality control & post construction services.

The implementation process of QUAS is provided at Exhibit 8

Community Sanitation Score Card introduced as an effective tool for community-based monitoring

The initiative was launched by WSSO in the state and Latur was the first district to demonstrate it in December 2015. Under the initiative, 'Swachata Jagran Manch (SJM)' (Sanitation Awareness Group) is to be established in every village. It should have representation from GP, youth groups, SHGs, FLWs, etc. and Sarpanch or a person nominated by Sarpanch will work as co-ordinator for the group. Representation of the women should be 50%. The key responsibility of the group is to monitor the ODF status of the GP and motivate community to build toilets. The following activities are being undertaken:

Exhibit 9: Colour codes of stickers

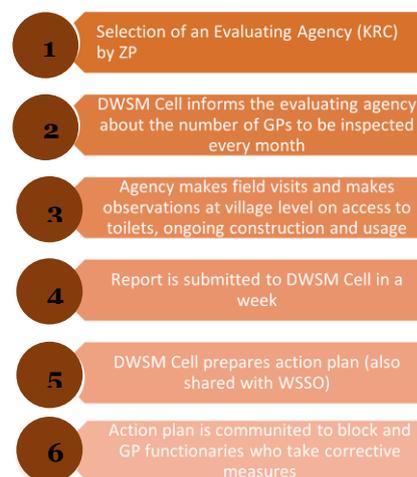
- HH has toilet and all members use it regularly
- HH have toilets but some members continue open defecation
- HH with defunct toilet
- HH without toilet

- Community Monitoring Charts (Flex) and stickers have been supplied to all districts (colour codes indicated in Exhibit 9). A sticker is affixed to every house in the village depending on the situation of access to toilet and usage.
- The SJM will update the ODF status of the village on colour coded flex (Score Card).
- Motivate the community to build, maintain and use toilets regularly.
- Awareness generation regarding sanitation, guide in construction of toilets and organise ODF related activities.
- Felicitate the family building toilet on Sanitation Day of every month.

The feedback from field indicates that the community response to the initiative is enthusiastic.

The Android-based MIS has been scaled up to all blocks in Aurangabad Division in 2015 jointly by WSSO, UNICEF and Riddhi Foundation

Exhibit 8: Steps in implementing QUAS



Learnings



Combination of user-friendly online and off-line tools for MIS is effective

The MIS introduced in Maharashtra was customised and synced depending on the need and resources available for managing MIS at various levels. E.g. manual Off-line MIS was introduced at GP level which can be maintained by the FLWs with minimum skills.

While at the district level, online MIS was introduced wherein computers, internet connectivity and trained staff are available to maintain it. Both the systems were synced so that flow of data is maintained seamlessly.

Checks and balances have also been maintained. This made the system user-friendly, efficient and accurate. Due to this, it is being maintained and used consistently at all levels for monitoring, review and planning interventions.



Objective analysis and graphical display of data is preferred due to ease of understanding

The outputs of the MIS (online, android-based and Factsheets) are presented in form of visual analysis such as maps, charts and graphs. In case of online MIS, the users can configure the visuals. These features make the MIS user-friendly and facilitates decision making based on empirical evidence. Due to such features, the MIS is being used regularly by the stakeholders.



Capacity building all levels is essential for efficient monitoring

It is important that the staff / FLWs understand the inputs, outputs and the mechanisms of the MIS for seamless maintenance and accuracy of outputs. Hence, intensive capacity building of staff and FLWs is essential for operationalising and maintaining the MIS in-sync, especially if the system is decentralised and users vary at different levels.