



Reaching the Poor through Sustainable Partnerships: The Slum Sanitation Program in Mumbai, India

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Despite all their efforts, the majority of cities in India have been unsuccessful in meeting the sanitation needs of the poor. Today, one of the main challenges they face in this sector is to develop innovative approaches, alternative to the centralized provision of sanitation services, and do this in partnership with the communities of users. This note describes the positive experience of the Municipal Corporation of Greater Mumbai in implementing the WB-assisted Slum Sanitation Program in partnership with the communities of slum dwellers, and draws lessons.

The Context

Despite the universal understanding that the availability of adequate and reliable sanitation services is essential to improve the quality of life of the urban poor, Indian cities have been largely unsuccessful to respond to this basic need. Amongst the most recurrent and well known reasons for this is the fact that public programs often focus on the direct provision of public toilet blocks using a supply-driven approach. In cities where a large percentage of the population live in informality, single-handedly build public toilets for all the slum dwellers easily turns in to a never-ending task, draining large shares of the municipal budget. Even when (and if) funds are made available for construction, the problem remains of coping with heavy recurrent expenditures for operation and maintenance.

The city of Mumbai¹ is no exception, adding to the general problem its dramatic statistics. A city of 12 million (census 1991)², more than half of its population (about 55%, as estimated in May 2001) lives in slums and squatter colonies which occupy about 8% of the city's land. In this densely populated city, toilets for slum dwellers are mostly not available, or if they are, they are in such a poor condition that people refuse to use them. The outcome of this lack of choices is easy to imagine: general discomfort and vulnerability for those forced to use open public spaces, and enormous health hazards and environment degradation for the whole city.

Inadequacy of standard solutions adopted so far in the city

The only solution that the BrihanMumbai Municipal Corporation (BMC – Municipal Corporation of Greater Mumbai) has tried out on a large scale is the construction of public toilet blocks in the slums. Up to date, about 9,700 of public toilet blocks (about 77,550 seats) dot the slums of Mumbai. Even assuming that all such blocks are in usable conditions (surveys show that up to 80% of them are not functioning), they still hardly meet 50% of the total demand. This in addition to the fact that they also pose a huge public finance burden, since the BMC is currently responsible for the maintenance of about 50% of the existing stock of public toilets.



A familiar feature in the slums of Mumbai: the public toilet block

1. Mumbai is the financial and commercial hub of India and 40% of India's tax revenues come from this city alone. It is one of the largest and most populated cities in the world.

2. More recent estimates report a population of about 16 million.

Apart from the sheer deficit in the number of available toilets and huge maintenance costs, public toilet blocks also present a set of practical problems. The following list highlights some of them:

1. *Design and Location.*

- The extremely standardized ten-stall block cannot be adapted to the space requirements of densely built settlements. Often the only space available for construction is not the most accessible and appropriate.
- The design of public blocks does not provide for water and electricity connections, contributing to reduce hygiene and security of the premise.
- Men's and women's toilets face each other across a central corridor without any separation. This reduces the sense of privacy and lead to major arguments at "rush hours".
- There is no provision for children toilets, and children have to compete with adults for the use of the toilets.

2. *Technology and quality of construction*

- Public toilets are not connected to the main sewer system, but use aqua-privy septic tanks, which require regular desludging by vacuum trucks. This only compounds the problem in areas where access for vehicles is hardly available.
- The low quality of construction achieved by the contractors contributes to reduce to two to three years the average life-span of the structure .

3. *Hygiene, Physical Security and Privacy.*

- Lack of water availability in the toilet premises creates obvious health hazards.
- Both design and location play a critical role in reducing the safety and privacy (above all for women and young girls). Even when location is not a problem in itself, the lack of electricity and therefore of illumination makes the toilets potentially dangerous at night.
- Mothers discourage children from using the toilets, since they know that very small children can get entangled in the trap-less aqua-privy and even drown.
- The typical standard block rests on top of the septic tank, at about four feet above street level. The wooden doors of the stalls deteriorate and break, allowing passers-by look right into the stalls.

4. *Operation & Maintenance.*

- Due to the heavy use and all the technical reasons listed above, public toilets require frequent and constant maintenance. The Municipal Corporation employs cleaners and maintenance staff, but the personnel are never enough and often absentee. Ironically, the lack or low level of maintenance creates huge health hazards right in the middle of slums desperate for access to sanitation.

The Slum Sanitation Program

Background

In 1995, the World Bank approved a seven-year loan for the Bombay Sewage Disposal Project (BSDP) with the main objective of strengthening the capacity of the Municipal Corporation to provide sewerage services. The project was mainly targeted to the undertaking of large and specialized sewerage works. One of its primary objectives specifically aimed at "improving the health and environmental conditions in Greater Mumbai, including slum dwellers". It was mainly to achieve the latter that the Slum Sanitation Program (SSP) was added to the project³. This component answered the concern of both the civil society/NGOs and the Municipal Corporation that the solution to the sanitation problem of slum dwellers does not depend directly on the larger city-wide sewerage network. It rather depends on the targeted "provision of sanitation facilities explicitly for these poorer segments of the population".

In its original formulation, the BSDP did not flesh out all the implementation details of the SSP, but it rather provided a guiding conceptual framework for implementation based on a demand-driven and participatory approach. The SSP also adopted a learning-by-doing capacity-building strategy for the stakeholders, and provided maximum flexibility during implementation by adopting a two-phase approach, whereas lessons from the first phase could help improve the implementation process in the second one. It is worth mentioning that in between the two phases, a survey of sanitation facilities in all the slums of Mumbai was carried out. This exercise was very critical in helping the municipality better visualize the city-wide sanitation problem and understand the positive impact that the continuation of this project would have on health and environment.

3. The SSP takes up about 10% of the total project cost of US\$ 295.6 million (US\$ 192 million of Bank funding), targeting about 1 million slums dwellers located on municipal land. In the second phase of the project, slums located on land owned by other landowners were included in the project.

By the end of the pilot phase, the program was steadily moving towards an innovative partnership between municipality and communities, based on the understanding that the municipality would provide the initial capital to build community toilet blocks, while the community groups would take full charge of O&M. The corpus of knowledge developed in this phase⁴ provided valuable lessons when BMC moved to the second phase of the SSP implementation and faced the practical challenge of formalizing the partnership approach and scaling up.

Building partnerships

As it stands today, the SSP defines sanitation for slums as a complex service, i.e. a package of “hardware and software” components designed to guarantee the uninterrupted use and usability of the service. In particular, it includes: (1) the creation of competent CBOs capable to fully take over the management of the service, including payment of utility bills, (2) the delivery of an information package for users on hygiene, program implementation and management, (3) the actual construction of the community toilet block, and (4) the provision of complementary utilities (water and electricity).

Delivering on such a sanitation package is a complex task, which the BMC (or any other stakeholders, for that matter) could only accomplish through strategic partnerships with other key stakeholders, each contributing with their comparative advantage to the process. In particular: (1) the municipal authority provides the initial capital and creates the enabling environment to facilitate the participation of other stakeholders and to scale up; (2) the private/corporate sector, represented by construction agencies, has the technical knowledge to build toilet blocks; (3) the NGOs can mobilize communities and facilitate their participation by building a bridge with the local government; (4) the community of users organized in CBOs (or Small Local Business Enterprises – SLBEs) can effectively act as end-service providers, taking charge of the management of the service and the full payment of utilities.

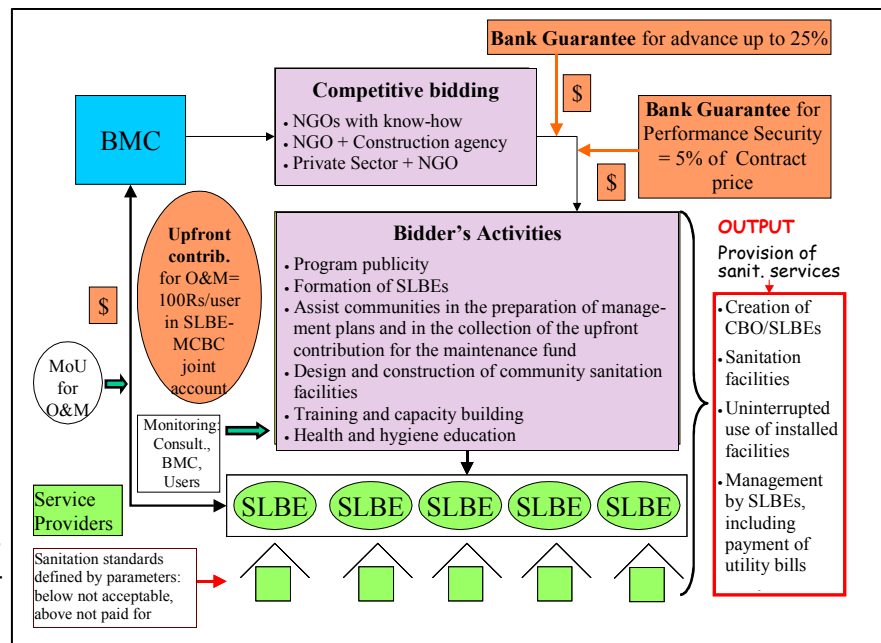
The Implementation Process

Bearing the above factors in mind, the current SSP implementation framework evolved to formally engage the various stakeholders in a partnership that enables them to play the role that best suits them. The process is still evolving, but its core components and principles are firmly in place as described in the flowchart in Box 1 and in the next sub-sections.

The Bidding process.

The BMC initiates the implementation process by opening a competitive bid for sanitation services in selected wards. The bidding qualifications and mechanisms are flexible enough to facilitate NGOs’ participation, either in association with construction firms or alone, if experienced in construction.

Rather than contracting out each of the individual components separately, the Municipal Corporation follows an integrated approach and focuses on the final output (the sanitation package). This entails: (1) setting the parameters for implementation (e.g. checklist with triggers



Box 1. The SSP implementation flow-chart

4. By dialoguing with NGOs and community groups, the BMC also draw important lessons from the long-term experience of communities of slum dwellers who had successfully tackled their sanitation problems (both in Mumbai and in other Indian cities).

to move from one step to the next, minimum specifications, etc.) leaving to the contractors⁵ and the CBOs the details of how to operationalize them in each specific slum; (2) contracting out a bundle of activities (i.e. program publicity, health and hygiene education, community mobilization & participation, planning and design of sanitation facilities, construction, training of CBOs).

Implementation on the ground

The contractor’s very first activity is to carry out a general program-information campaign in all the slums in the assigned ward and asses willingness and readiness of the communities to participate in the sanitation scheme. After this first screening process, communities are mobilized around the issue of sanitation and CBOs/SLBEs created (if not already existing and active). These CBO/SLBEs are then registered as organizations under the Charity Commissioner and obtain the legal status which will allow them to manage the community sanitation block (i.e. obtain water, sewerage and electricity connections, sign the Memorandum of Understanding with BMC, open and maintain a bank account to deposit the maintenance fund and earnings, pay utility bills, etc). The whole registration process of CBO/SLBEs has been mainstreamed to reduce the waiting time to the minimum.

Once created, mobilized and empowered, the SLBEs demonstrate their commitment to the SSP process by collecting Rs. 100/user⁶ towards the creation of a sanitation maintenance fund. The money is deposited in a joint account with the BMC. It is only after collecting at least 50% of the expected maintenance fund and having a technically sound and community-endorsed plan for the toilet block, that the BMC issues the building permit and the actual construction of the community toilet block can start⁷.

Box 2. What is so special about community toilets

Community toilet blocks differ from public ones for a basic reason: they are meant for a specific community of users and not for the general public. For this reason, users develop a sense of ownership of the assets and are willing to take full charge of their Management.

Community toilets have an average of 16 to 20 seats clearly separated between men, women and children sections. Toilets are never overused, since there is a cap of 50 users/seat, and the CBOs in charge of management also monitor the number of users. The layout of the block is not standardized, but it is designed to fit the local availability of space. If the space is limited (which is often the case, even when demolishing old public toilets and reconstructing) the block is developed in height, with men section generally on the ground floor, women and children sections on the first floor and caretaker’s room with water tank on the second floor. Other standard features are: bathing cubicles, urinals and squatting platform/space for children. The latter is specially designed at a child-scale, with a certain degree of openness to allow for adult supervision, and it is often equipped with special handles to help balance.

The community toilet block guarantees safe disposal of the generated sewage by providing connection to the municipal sewerage network. When this is not possible, due to a difficult location, alternative *in-situ* methods are used making sure that local capacities are built within the community for the maintenance of the system. Community toilets always come with two key essential services, i.e. 24-hour water and electricity supply. Very often communities decide to use the opportunity of the toilet construction to tackle other environmental problems affecting the surrounding area, like solid waste disposal and drainage improvement. Since the communities are involved in and retain control of the whole process, from planning, to construction, to manage, they can easily decide to add extra facilities to their community toilet blocks by contributing the required extra funds. So far, numerous community toilet blocks have been equipped with extra features like community centers, gyms, crèches, and paved compounds used as playgrounds and for social gatherings.



Community toilet blocks: children toilets (top) and extra features, like community hall (bottom)

5. By contractor it is intended an NGO or an NGO-construction company joint venture.

6. Adult users, with a ceiling of no more than Rs500/hhd.

7. It is worth mentioning that at times the collection of the upfront contribution added to delays in the implementation process and, interesting enough, not for reasons of affordability or unwillingness to pay, but for the unfair “competition” of other government schemes promising sanitation services for free. This pushed the BMC to dialogue with the Government of Maharashtra which eventually issued a general resolution (GR) stating that all programs implemented in Mumbai to provide sanitation facilities in slums must follow the SSP participatory approach. The GR represents a major achievement for the BMC.

Delivery and management of the service

Once construction is over and all the utilities are in place, CBO/SLBEs take over as local service providers and sign a Memorandum of Understanding (MOU) with the BMC. Such MOU ensures that BMC retains the prerogative to evaluate the performance of the SLBEs over time and replace them in case of low performance against the standards and parameters agreed in the memorandum (measured in terms of cleanliness, hygiene, transparency and accountability to user members, inclusiveness, maintenance of the asset, etc.). The decision of how to operate the service is left entirely to the CBO/SLBE and the community of users: from the direct involvement of the users in all the activities, to the outsourcing of management to private service agencies, a whole range of options has been adopted by different CBO/SLBEs. Box 3 gives details on the example of Chikhalwadi, one of the very first community toilet blocks which built under SSP.

Box 3. Community toilet block in Chikhalwadi

NGO: Apnalaya, Mumbai (Program Publicity and CBO formation)

Contractor: Society for the Promotion of Area Resource Centres (SPARC, a Mumbai-based NGO)

Location: On the garbage disposal site in Chikhlwadi, Mankurd (M/East)

Year of construction: 1999

Name of CBO/SLBE: Kranti Welfare Association

Facilities: 20 toilet seats equally divided between men and women, 4 bath cubicles, 18 children's squatter platforms, one caretaker's room and a community hall added as extra-feature to the block. The construction of the community hall was financed by the construction agency. This space is currently used as a pre-school.

General functioning: The toilet block is satisfactorily managed and is functioning efficiently. Because of its location, the block is not connected to the municipal sewerage and water networks. It uses a septic tank disposal system and it depends on water bought from private tanker suppliers. The latter makes the operation of this toilet a very expensive business.

Management: The CBO is financially self sufficient. It employs six staff responsible for cleaning, care taking and maintenance of the toilet block, and it directly undertakes routine repairs, while relying on BMC for major repairs. The CBO spends a considerable amount of money on water bought from private suppliers; however, it has recently negotiated the permission to buy municipal water, which is expected to reduce the expenditure. Due to the high water expenditures, the CBO had to stop accepting new members (which only bring a monthly income of Rs 20/ family) and increase the user charges for pay-and-use from Re 1 to Rs 2 per visit. It is remarkable that, despite all the expenditures, the CBO is still able to balance revenues and expenditures.

In particular, the average monthly expenditures are reported to be Rs. 16,000 (US\$330). The composition of expenditure is: water - 47%, staff salaries - 30%, electricity - 9%, consumables - 5%, repairs - 6% and office maintenance - 3%. The financial self-sufficiency of the CBO is further reflected by the fact that its management committee invested Rs.32,000 (US\$660) in a bank term deposit and another Rs.65,000 (US\$1350) in a saving bank account. From this year onwards, the CBO has also taken up the responsibility to run the children's pre-school (initially run by an NGO). The level of transparency is also very high, as the CBO recently submitted its annual statement of accounts to the Registrar of Charity Commissioner



Class-room for pre-school children built above the toilet block

Today's implementation stage

Up to date, 87 sanitation schemes have been completed under the SSP and successfully handed over to the communities for management. These comprise 81 community toilet blocks (including one retrofitted toilet) for a total of 1,331 seats; 4 mobile/shiftable toilets for a total of other 30 seats; and local sewers connecting 35 households with private latrines. In addition, 119 more schemes (about 1,980 seats) are under implementation and further 180 schemes have been contracted out and will be completed within one year.

Most of the CBO/SLBEs are performing well, raising enough funds within their communities to efficiently manage the sanitation facility and to pay for all the utility services. Their success is also contributing to raise the interest of the private sector in sanitation for slums, both at delivery and/or management stages. The capacity and strong commitment demonstrated by the CBO/SLBEs have contributed also to a major change in attitude by decision-makers. For example, the Municipal Counselors, who were initially skeptical about the capacities of communities to become local service providers, are now amongst the most convinced champions of the SSP partnership approach.

With regard to the users, Box 4 reports, in their own words, their high level of satisfaction with the service.

Box 4 Voices of the users

Here follows some of the self-explanatory comments of slum dwellers expressing their satisfaction with the new community sanitation services.

- We never invited relatives and friends because we were ashamed of our living conditions, we had not toilets. Now I can have guests in my house....*(Marian bai, Naik Nagar, Dharavi)*
- I could not sleep in the night thinking how to cope with the lack of sanitation. Now I have a tension less in life and I can concentrate on other problems. I really do not mind paying for such a good service.... *(Naseem bai, Shiv Nagar, Sewree)*
- I used to queue at the public toilet for a long period every day and I was often late at school. Now I can use the toilet every time I want... *(11-year old Kavita, Ekvira Mitra Mandal, Dharavi)*
- Now I do not need to wake up at 6am to queue at the public toilet and reach office only at 10 am.... *(Sanjay, Bhandup)*
- We could not use the public toilet at night and during the monsoons. It was dangerous for women and we were attacked by stray dogs taking refuge in the toilets. *(Lakshmi bai, Bhandup)*



Community toilet blocks in Shyam Nagar, Andheri (E) and Prem Nargar, Goregaon

Looking ahead

The BMC is determined to build on the positive experience of the SSP and scale up at city level, aiming at universal coverage of sanitation for slums. In scaling up, the municipality is contemplating to adopt an integrated approach, combining the sanitation scheme with a water program, and using sanitation as an entry point for the provision of a bundle of other key environmental services, like solid waste disposal and drainage improvement. On the institutional side, the next step is to fully integrate the SSP in the BMC structure and enhance the coordination between complementary sectoral departments (both within and outside BMC) and land owning agencies.

The future of SSP also entails a wider involvement of finance institutions and private enterprises/corporate sector, while ensuring that community groups maintain the role of equal partners. It will also increase the sanitation choices available to slum dwellers by formalizing and regulating some of the innovations currently under implementation.



Solving problems of solid waste disposal and availability of water in the slums: moving towards an integrated approach to the provision of a bundle of environmental services

Key learning to date

BMC is planning to scale up the SSP at city level to achieve universal coverage of sanitation. At the same time, the Government of India is planning to replicate the experience of Mumbai in other cities through the country-wide National City Sanitation Project (Nirmal Bharat Abhiyan), aiming at “100% coverage for sanitation facilities for all”. Both scaling-up and replication should take into account the lessons learnt so far. The following are just few of the key elements that should be kept in mind when doing so:

- The **partnership of stakeholders** is the key to success. To obtain maximum results, different stakeholders have to be enabled to play the role that they can do best. Developing the right framework for this to happen requires an initial investment in a learning-by-doing phase. This will allow building capacities and developing the implementation framework that better suits the local context. Lasting partnerships require time for the stakeholders to know and trust each other, and learn how to work together
- Ensuring that **local communities take charge of management** is key to the sustainability of the program. This implies that communities participate in the program from the very beginning as equal partners. If they are expected to take on their shoulders the financial burden of managing the sanitation facilities, they have to be clearly informed on all the details of the program and develop a strong sense of ownership. When the slums do not have a tradition of community participation (social capital), the successful mobilization for a sanitation program through a demand-led and participatory approach can work as a catalyst to create active groups for the provision of other basic environmental services.
- To facilitate and speed up implementation, it is important to **work across complementary government institutions/departments** to guarantee the mainstreaming of all the necessary bureaucratic procedures. It is also important to review the current sectoral regulatory regime to ensure consistency and uniformity in the city-wide approach and avoid confusion and conflict when implementing the program.



The changing face of slum sanitation in Mumbai

- The experience in Mumbai has clearly demonstrated that the provision of sanitation services to slums is not effective and efficient without the provision of water and electricity. It also demonstrated that sanitation quickly turns into an entry point for a more **integrated approach to the provision of a wider set of environmental services**, like solid waste disposal, improved drainage and clean water. This stresses the importance of adopting an integrated approach to slum sanitation.
- The policy of **contracting out the whole sanitation package**, integrating community organization, planning, design and implementation under a single contract, worked well in the case of Mumbai. The municipality adopted an output-focused approach, setting minimum specifications and parameters for operation, but leaving to the contractors (NGO-construction agency) and the CBOs the freedom to decide how to operate locally. This increased local sense of ownership and accountability to the users, while reducing the burden for the municipality to deal with micro-management during implementation and future service management.
- Establishing a **solid mechanism for initial assessment and ongoing M&E** is very important to support the implementation process and to evaluate the real impact on the ground. This is particularly true for a program like SSP, developed through iterative phases where every change in the implementation process builds on the experience of the previous phase. This calls for a monitoring system inbuilt in the implementation process and capable to influence managerial decisions.

Information

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