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Sanitation and Hygiene Applied Research for Equity

REPORT

Emergence of community toilets as a public good

The sanitation work of Mahila Milan, NSDF and SPARC in India

August 2016

Building knowledge. Improving the WASH sector.

Acknowledgements

Initially, this report was undertaken simply to document the monitoring and support strategy that the Indian Alliance developed in collaboration with the Municipal Corporation of Greater Mumbai for assessing the status of the community toilets the city had built. However, jumping straight to this account without the history of the Alliance's sanitation journey seemed like only half the story. We could not write about a highly scaled-up programme in sanitation without first documenting the genesis of the process and its evolution. Besides, putting this account together has given us an opportunity to consolidate years of experience and documentation. And so the enterprise expanded.

The team from the National Slum Dwellers Federation, Mahila Milan and SPARC who assisted Sheela Patel to produce this document: A. Jockin, Keya Kunte, Maria Lobo, Monali Waghmare, Preeti Banarse, Sharmila Gimonkar, Vinod Kumar Rao, Indu Agarwal, Fakir Mohamad.

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Contributors

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This toilet is situated opposite the Pune municipal corporation office. NSDF and Mahila Milan built an additional floor that houses the Mahila Milan Pune office; so working closely with the municipality is easy.

1. Introduction

Sanitation has been described as India's shame. Of the billion people in the world who still defecate in the open, well over half live in India. Most of those who make do without sanitation live in rural areas, but many millions of them live in crowded urban slums, and their numbers continue to grow. Two-thirds of these slum dwellers have no access to a sewerage system, and one-third still get by without access to an indoor toilet. Even where public toilets are available, they are often so rundown and filthy that defecation in the open remains preferable. The impact of these conditions is profound – not only for health but also for human dignity. This affects the way slum dwellers are seen by others, but more importantly, how they see themselves.

This document traces the evolution and trajectory of the impassioned commitment that two grassroots urban organisations in India have brought over several decades to issues of sanitation for slum dwellers. The National Slum Dwellers Federation (NSDF)[1] has partnered with Mahila Milan[2], which creates women's collectives within each slum in the federation. Together with their support non-governmental organisation (NGO), Society for the Promotion of Area Resource Centers (SPARC), they have been fiercely committed to ensuring that access to safe, adequate sanitation, based on the needs and priorities of local settlements, becomes a focus for attention and investment in the cities where they are engaged.

This account describes how their sanitation strategy evolved – from its original designers and their pragmatic approach, through their revitalisation of community toilet blocks as a viable sanitation option, their bottom-up advocacy, and the multi-decadal projects they have executed that have resulted in a number of cities renewing their commitment to invest in city-wide sanitation.

The issue of sanitation initially came up in 1984 in discussions with pavement dwellers in Mumbai. While the pavement dweller women were exploring the larger challenge of secure permanent housing, they also thought about their need for sanitation. These parallel explorations remain powerful examples of enquiry and self-education. This began the journey for the Alliance of Mahila Milan, NSDF and SPARC, to champion the construction of community toilet blocks for the poor in some of the densest settlements in the world.

India finally has a national universal sanitation policy, and is pushing hard towards the elimination of open defecation and the provision of adequate solutions for all. This is a large and complex endeavour that requires many actors at all levels and many smaller efforts joined together. This document describes the Alliance's own evolving journey in this context, where it has linked to the larger enterprise,

1 A national organisation of urban slum dwellers that creates federations of slums with similar issues.

2 Mahila Milan "Women Together". Collectives of women from the slums that network across the city.

how it has helped to shape it, and what it continues to bring to this ongoing venture.

The road to universal sanitation is full of pitfalls and setbacks. Installing adequate sanitation in dense urban slums is a nightmare of complexity for the politics involved as well as the design and management. It needs determined social movements like this to innovate and champion this process. It requires a committed organised network of slum dwellers to remind the nation, state and cities in India that nothing is worse for the self-esteem of a nation than open defecation. When the community of pavement dwellers initiated the discussion on sanitation in urban slums, there were no institutional champions for this critical need of the urban poor. The pavement dwellers' long-term resolve and the process they initiated and explored have contributed at various points to the current efforts in India.

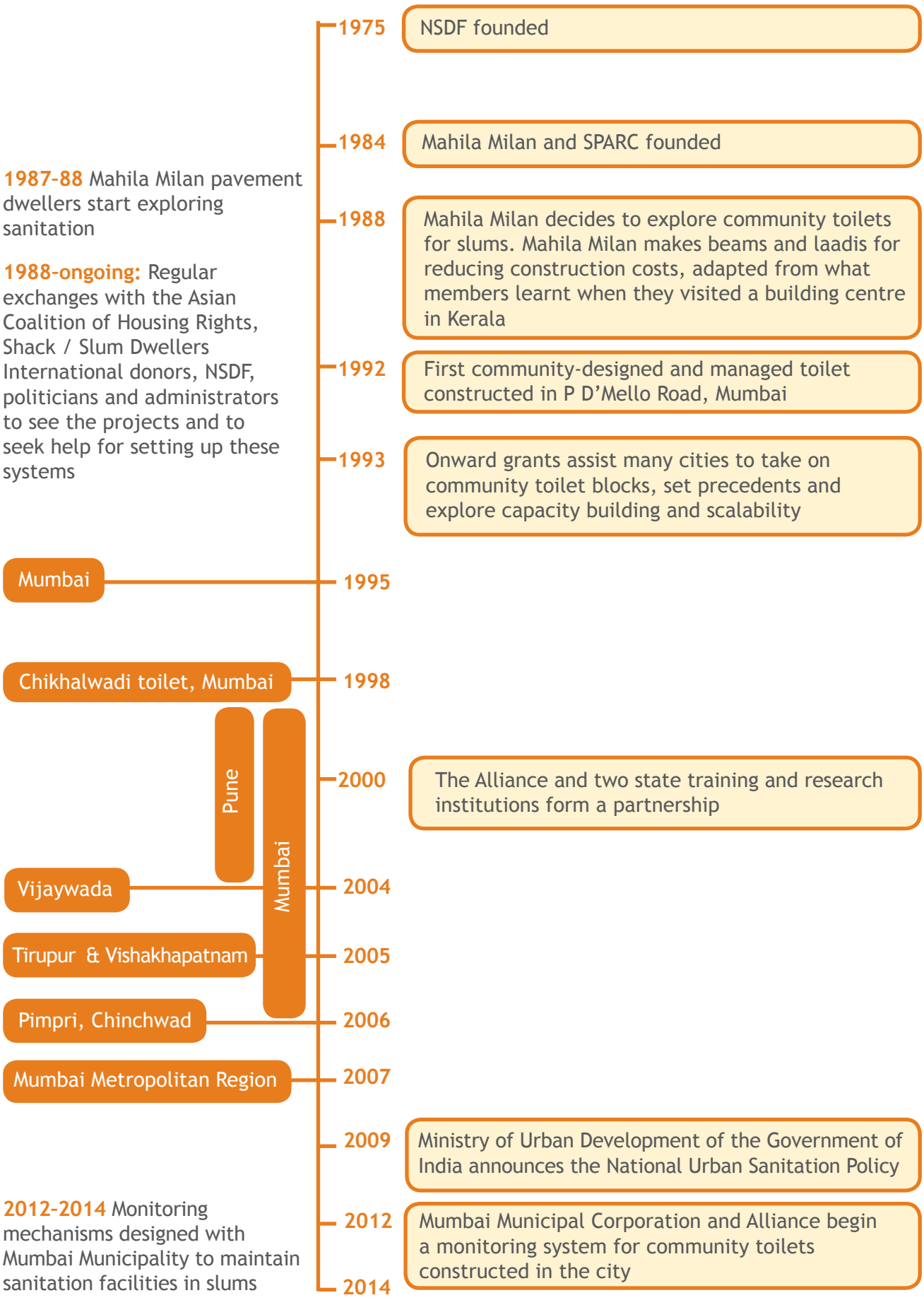
By looking at sanitation as a governance indicator, NSDF and Mahila Milan removed it from the technical realm and placed it squarely in the domain of politics and governance. 'Good governance' is often used in the context of development to describe how public institutions conduct public affairs and manage public resources. Academics use many indicators for measuring good governance but these rarely include the fundamental needs of the poor. To millions of poor people in informal settlements, the real measure of governance is whether there are amenities and services for those who need them the most, and the absence of sanitation is perhaps the most powerful indicator of all.

There are certainly plenty of government sanitation programmes around at this point, lots of development money specifically earmarked for sanitation, and an overall impulse to improve the situation. But what government administrations seek to do and what the people in under-serviced communities actually need often fail to connect, and the process stalls again and again – a reflection of the inherent difficulties. The idea of communities participating in work that ensures that every settlement has adequate toilets is very simple in concept, but it does not imply a simple process. It is always complex and messy to realise. The focus of this reflection is to explore what it might take to ensure that all the urban poor have safe and dignified access to sanitation. This is challenged by the huge remaining deficits in provision, and the urgent need to plan for the continuing migration to cities.

Sheela Patel, Director, SPARC, 2014

Figure 1: Greater Mumbai with clusters of slums in red

Figure 2: Timeline of the NSDF-MM-SPARC Alliance's work constructing community toilets



2. How it all began

In 1993, a group of pavement dweller women in Mumbai built a community toilet block on P D'Mello Road, a busy thoroughfare in the heart of the city. This simple building, constructed in a matter of weeks, contained four pour-flush latrines, a water tank and a caretaker's room, and it made history. Not only was it the first time that the city had awarded a contract for building a public toilet to the users themselves, it was also the precedent for the thousands of toilets that would be built in subsequent years by a growing national and then international network of slum dwellers. This early achievement was the culmination of years of discussion and effort on the part of these pavement dweller women, and the story, which goes back to 1984, should be told from the beginning. In fact, the real story goes back much further than that, if we consider the conditions that motivated these activities.

In the late 1800s, the city of Bombay emerged as a vital port after being cobbled together from seven islands to form what is now known as the 'island city'. In the early days, textile mills and a very busy port led to huge immigration of workers and businesspeople, and a formal city emerged with a municipality to manage its needs. An epidemic of the plague, and its impact on the vital cotton trade, led to the first sewers being installed. And the need for a stable workforce led to the first public housing in the city.

However, the city has always had a large, conspicuous slum presence alongside the formal city. For every textile or dock worker provided with a house, there were several other migrants also servicing the city and living informally at its edge. Each time the city grew, evictions pushed some of these informal dwellers further out. The city has always used the labour of these workers, but never considered it necessary to provide them with basic amenities. Mumbai has grown to be a metropolitan area containing 13 municipalities in addition to the original city, and few of its many hundreds of slums had any regular amenities or services until the mid-1990s.

Pavement dwellers, who live in huts on the city's sidewalks, are considered the most vulnerable of all of Mumbai's inhabitants. Unlike most other slum dwellers, they were not even recognised by the state until 2000 for the purpose of relocation in the face of evictions. The Alliance's collective reflections on sanitation began with women from these pavements dreaming about the possibility of new homes.

In 1984, SPARC was formed by a group of activists who wanted to explore a genuine partnership with the poor rather than working as project managers in NGOs. They started with pavement dwellers, most of them first generation migrants, as the poorest and most vulnerable, and chose the E ward of the city, which had the most pavement settlements. The women's collectives in the communities that were organised over time as part of this partnership called themselves Mahila Milan (meaning "Women Together"), and they

requested that SPARC work with them on housing. They felt able to handle other issues themselves.

In 1985, SPARC and Mahila Milan women undertook the study *We the Invisible*, showcasing the plight of people who lived on pavements. They walked to work, had no amenities and faced eviction threats all the time. As one outcome of this effort, the NSDF, an organisation of slum dwellers fighting evictions, invited SPARC and Mahila Milan to join them in an alliance. This resulted in their three-decade partnership, known as the NSDF-MM-SPARC Alliance (hereafter 'the Alliance'), that continues today to work on urban poverty issues. In 1986 and 1987, NSDF walked SPARC and Mahila Milan through a very powerful process of peer learning. NSDF demonstrated that issues of land, amenities and a right to the city were deeply political, and that behaving like supplicants – expecting the government to give you something – was a pipe dream. Thus began a seminal journey with these women migrants, illiterate yet deeply committed, exploring a wide spectrum of possibilities. While that journey is a separate story, the issue of sanitation soon came into the picture, as the women designed their future homes and settlements.

Houses on the pavement in Mumbai

The homes the Mahila Milan women hoped to build with their own money were planned to be 180 square feet, the minimum permissible space for a home within slums on government land. If they shared toilets, instead of having one to a house, the cost of materials would go down by 25%. Besides, with no running water, a toilet inside the house was a health hazard and took up precious space.

Analysing household data from Mumbai and many other settlements in which SPARC work, the size of the houses (as mentioned above) is between 100 to 180 square feet. Moreover in general there is little space in the lanes and no services apart from taps, hence no means to treat the faecal matter. Some slightly larger houses attempted to get water and toilets inside the dwelling, but this was problematic because the water supply was irregular and the pressure was weak. Hence pits under the houses had to be cleared manually.

When the women visited other projects developed by the state for slum dwellers, they found most of the individual toilets had been turned into cupboards or storage spaces. But shared toilet blocks did not appear to be a great alternative. In the course of visits to different communities, the women found that most government-built shared toilet blocks were poorly maintained and dirty. Many did not even work. Numerous municipal commissioners admitted quite frankly that they had the money to construct toilets but not to pay for their maintenance. Residents claimed that even when the municipality hired people to clean the toilets, they did not do their job unless the residents paid them extra. The World Bank and other global agencies had long before decided that community toilets were a bad idea because of these maintenance issues. But even where toilet blocks were functional, women often hesitated to use a facility shared with men. And children always ended up squatting outside the toilet block – they could not compete with the adults to use the toilets, nor did they really want to use these dark, smelly places.

It is a simple observation, but women are generally best equipped to figure out what works and what does not around issues like these. Out of their assessment of the possibilities and realities came the concept of community-managed, city-financed toilet blocks with separate and equal seats for men and women, separate spaces for children, and provision for maintenance.

The Alliance was certainly not against the idea of toilets in each house – but this was an impractical goal, given the lack of space to accommodate them and the complexities of managing the waste. Even in those cities that had sewerage systems, bringing the necessary water and sewer pipes to individual homes was totally unrealistic in most dense slum settings. Settling on community toilet blocks was a practical strategy to ensure that sanitation would be accessible to all and that the state would finance it as a public good. Through their concern with sanitation, the slum dwellers finally began to enter into dialogue with the city.

The high cost of being poor

Over a decade ago, when the Mumbai Mahila Milan first began gathering information about the toilet situation in Mumbai's poorest communities, they came upon a strange paradox that repeats itself across urban India. Middle class people, urban planners and city administrators all tend to see the poor as free-loaders, complain about the poor getting free amenities which everybody else has to pay for, and deplore this drain on the city's resources with great righteousness.

However, when women in pavement settlements spoke about their daily expenses, a very different picture emerged. Without ration cards, they could not buy the cheap government-subsidised cooking fuels that wealthier households take for granted, and had to pay inflated black-market rates for the same kerosene.

Without their own water taps, every drop their families drank or washed with had to be paid for at a premium, and carried bucket by bucket from far-flung sources.

And without toilets, they had to queue for hours and pay dearly for the privilege of using the smelly loo of some shop-keeper or building watchman who saw a profit in nature's most basic need. For a family of five or six members, each with the ordinary human digestive patterns, the daily toilet budget could go up to 12 rupees, close to the daily wages of a head-loader or a vegetable seller.

Toilet Talk 1997, page 2

SPARC, NSDF and Mahila Milan were initially confounded by the cool reception they received. Elected representatives said things like "No sanitation for the poor. It will make more people migrate and come to the cities." The question of what these city residents needed to live a decent life was of very secondary interest. People who arrived by train in Mumbai always showed disgust at seeing people defecate in the open by the road or by the train tracks. Yet no one seemed aware or concerned that open defecation was the only option for many people. One academic in a discussion with SPARC cynically summed up the situation: "Maybe when faecal matter has monetised value, toilets will be set up to harvest it and people may even get paid to shit." The following excerpt from SPARC's Toilet Talk (1997) looked back on the situation the federation members had been facing when they started this exploration. We make use of other excerpts from Toilet Talk in our history below; many of the conclusions that were drawn almost 20 years ago still hold true.

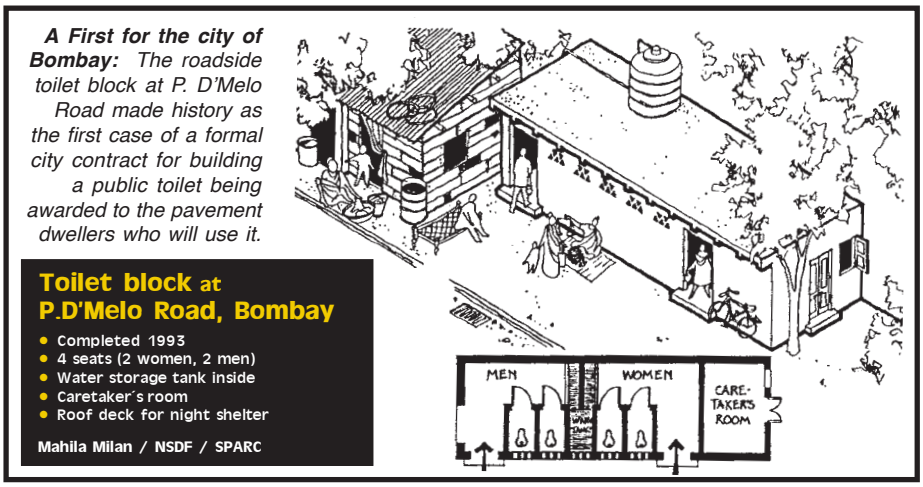
Conditions like these are behind an ironic joke still making the rounds of Mumbai's pavement settlements, which quips that the poor are the only ones who cannot AFFORD to get diarrhoea.

Between 1987 and 1993, when their first toilet was finally built, the pavement dwellers continued to transform themselves from helpless households to organised communities. The Mahila Milan women's networks were extending to other federated slum communities in Mumbai and other Indian cities, facilitating much greater acceptance of the value of women's knowledge and participation. The exchanges between the initial Mahila Milan pavement dwellers and other slum federations, through visits and peer learning, transformed their tentatively developing capacities to undertake surveys, design homes, start savings groups, and initiate dialogue with the state.

The concept of precedent setting, experimenting with the actual demonstrated outcomes of their aspirations, began to gain ground, and many grant makers actually financed these precedent-setting activities. In this document we speak mainly of sanitation, but it was as though new possibilities and ideas flowed in the breeze, to be caught, examined, experimented with, and reconnected with their origins to deepen the thinking, refine the concepts, and widen the collective experiences. Of all the federation members, the pavement dwellers were the innovators and the real wizards within NSDF and

Mahila Milan, under the leadership of Jockin, the founder of NSDF, and they remain acknowledged leaders for what they have contributed. They have waited a very long time for solutions to their own problems, however. As pavement dwellers they have remained invisible in policy and resource allocations and have always benefitted later than other groups of slum dwellers.

Figure 3: Bombay's first roadside toilet block



A first for the city of Bombay:the roadside toilet block at P D'Mello Road made history as the first case of a formal city contract for building a public toilet being awarded to the pavement dwellers who will use it.

Source: Toilet Talk, 1997, p 17

The first pavement dwellers' toilet

P D'Mello Road is a busy thoroughfare just behind the Chhatrapati Shivaji Railway Terminus. It runs alongside some of Mumbai's oldest docks and shipping yards and is one of the most intensely bustling parts of an already bustling city. On the east side of the road are warehouses, entrance gates to the dockyards, and big trucks parked end to end. The other side was lined with an old pavement settlement of about 200 houses in the 1990s, almost all of them containing Mahila Milan members. The P D'Mello Road community had no water taps. Through their Mahila Milan collective, the community members got ration cards and persuaded the city to bring water in tankers. The next problem they wanted to tackle was the lack of toilets. Down the road and around the corner, near the back of the railway terminus, there was a small public toilet facility run by the taxi drivers' association, and some families worked out an arrangement with the association to use this toilet for a fee. The rest had to squat in the shadows behind the wheels of the big trucks.

In the early 1990s, the municipality was exploring the building of public toilets on sidewalks for passers-by in some heavily used areas. This particular road certainly met that criterion – it was home not only to the pavement dwellers, but to a lot of foot traffic. As part of this scheme, the municipality agreed to fund a toilet that would be primarily for the pavement dwellers. This was the first time the city

of Mumbai had awarded a contract to construct a municipal toilet, using municipal funds, to a federation of poor people. It was also the first time a municipal toilet was built specifically to serve a particular pavement community and not the general public.

It only took three weeks to build the toilet. From start to finish, the mood on the site was electric. Television and newspaper reporters came to cover "Bombay's first community-built city toilet". An American producer was there to do a story on toilets and footpath settlements for national public radio. Visitors from around the city and around the world stopped in daily. There was a sense of important things happening. The chai wallah's business down the street had never been so good.

The construction was supervised by three Mahila Milan members from Dindoshi, another settlement, who took time off from their own house-building project to come and help build the toilets. All of the labour – carrying water, mixing cement, soaking bricks, guarding the construction materials at night – was provided by the enthusiastic P D'Mello pavement community, Mahila Milan women, and local street kids from the affiliated Sadak Chaap group. Only one skilled mason was involved, and he also lived in the P D'Mello Road pavement community. The two women's and two men's toilets in the block had entrances at opposite ends of the structure, divided in the middle by a shared water tank. The water tank and tap were intentionally located inside the toilet block, to make sure that the water was available for flushing and cleaning toilets, and did not get used up for outside purposes. These two features – the separation of men's and women's toilets and the controlled water supply – became important design strategies in many of the subsequent toilets. The building was plastered inside and out. Cost- saving brickwork grilles brought in daylight and ventilation and added a distinguishing frieze pattern to the building's street façade.

Simple as the building was, the roof slab did involve some fancy solutions. The original plan was to use space up on the roof to build a night shelter for the Sadak Chaap street children, a feature that was later turned down by the city. But for that reason, a flat concrete floor slab was necessary, rather than simpler sheet roofing. The toilet's roof was made of pre-fabricated beam and funicular shell elements – domed squares, cast manually, which the women call laadis, supported by reinforced beams. This is a structurally sophisticated spanning system that other Mahila Milan women had seen in Kerala and decided to try out for the loft slabs in their own house-building projects. They had trained themselves to make the laadis and were beginning to use them in large-scale housing projects in Mankurd and Dindoshi in Mumbai as well as in Bangalore. The roof slab of the P D'Mello toilet block required 14 of these precast beams and 60 laadis. All of them were made on the site, in the dusty, narrow space between the toilets and the roaring traffic. The process of making these laadis provided the occasion to train a lot of people in construction skills. Samina, one of the senior Mahila Milan members from Byculla, the pavement dwellers' neighbourhood, was in charge of the laadis, and got help from a team of children from Sadak Chaap. Visitors from federations in Bangalore, Kanpur, Madras and Pune came to watch and help out. Delegations of slum dwellers from South Africa

and Cambodia also made visits to P D'Mello Road, and everybody had a turn with the trowel and the shovel. Subsequently this beam and laadi innovation was used in many other cities in India as well as in Kenya, South Africa and Malawi.

Once the building was complete, there was just one thing left to do. The group ran into an unforeseen obstacle, as described in the excerpt from Toilet Talk, written back in 1997. The toilet block was only finally connected in 2005, by which time the pavement dwellers from near that toilet block had been relocated. But in the intervening years it remained a source of pride and confidence.

Bad news from underground at the bitter end

The only thing left was to lay the pipe connecting the toilets to the sewer main across the street. That proved to be a crossing even Moses himself couldn't have managed. Between the shining toilet block and that sewer ran a massive cable from Tata Electric, protected by a sophisticated computer-surveillance system. If you dig down and hit this thing, just bump it, or even talk about it over a cup of chai down the street, sirens go off somewhere in the Mantralaya, and half the Indian army comes out in riot gear to defend the national security.

Nobody knew this until the toilets were finished and that pipe was all that was left. Maybe if they'd known, the toilets could have been built on a higher plinth, so that the pipe would run just under the road surface. Maybe then it would have cleared the cable without a problem and could drop back down in the chamber at the other side. No solution has yet been found which doesn't involve starting from scratch.

Even so... after three years and still not being hooked up, the toilet at P D'Mello Road is a point of great pride within the community, and among all the NSDF/MM federations. While efforts to resolve the sewer connection problem continue, the toilet is kept locked and carefully maintained. There's an up-beat sense about it – people are proud of what they've built, and sure that eventually this glitch will be ironed out and their toilet will be back in commission. And it will!

Toilet Talk, 1997, p17

Taking the model to other communities and cities

As we already mentioned, in the years before and after the first toilet was built at P D'Mello Road, the ideas developed on the pavements of Mumbai were being explored by others in India through peer exchanges. Part of the Alliance's mode of operation has always involved exchanges between federation members – whether from one community to another, between cities or even between countries. When slum dwellers visit one another, the learning is intense.

Behind this process of exchange with other slum communities is the belief that communities of the poor can and must be centrally involved in improving their own lives and the general conditions of the city in which they live. And they need to learn from one another in this process. There are communities out there that have taken steps to change things, to transform their own lives and settlements in various ways. Exposing people to exchanges with other communities acknowledges that these community-based transformations are powerful examples that can be learnt from, and are the best catalysts for other, larger transformations. These initiatives have changed the attitudes of city administrators, changed the strategies of how services and amenities are delivered to the poor, and inevitably changed the lives of the communities that were involved. Exposure to work of this kind is the first step in breaking down the crippling belief that poor people are too deprived and marginalised to change things themselves.

The approach of the NSDF/MM federations around India has been to undertake many different processes, with different groups and in different cities, focusing on housing, sanitation, savings and credit, tenure, helping each group to carry its initiatives through to a conclusion. Once the solutions have some replicability, that group becomes a training resource for the federations and can begin to assist other groups. As part of this more general process of exchange and learning, sanitation quickly developed as a characteristic signature of the Alliance.

Initially we had believed that once we had demonstrated at P D'Mello Road what we could do with a community toilet, that would be enough to encourage other states and cities to explore this model. However, community leaders and city officials in other places needed local precedents to initiate exploring these possibilities. The location of each of the toilets subsequently constructed in various cities emerged from the exchange visits to Mumbai of people from these other city federations. They saw that their own capacity to tackle the task and their ability to articulate it to their local governments and community leaders would be strengthened with local evidence and mentoring within their own localities. The next toilets were built in other Mumbai settlements – Dharavi, Dindoshi, Janakalyan – and at Sangam Talkies railway settlement, at Burmah Shell in Kanpur and at Basha compound in Bangalore. Unlike the P D'Mello Road toilet, these were built drawing on grant funds rather than on allocations from their municipalities.

It soon became evident, in the federations' push for change, how many technical, financial and perception issues blocked the simple common sense of providing sanitation for all in cities. Most cities in India do not have a sewerage system. In those that do, the sewerage lines skirt the slum areas. Given slum densities, retrofitting is very expensive and in most cases actually impossible. The World Bank and other global agencies, as noted, had given up on the idea of community toilets because of the maintenance concerns, and the Alliance had to work against this facile way of denying sanitation to slum dwellers. The federations saw an advantage here: if cities had the resources to build community toilets, then there was clearly an incentive to have people maintain them. But in order to maintain their toilets reliably, communities had to be organised. These toilets provided a huge practical focus for the federating principles of the Alliance.

Sanitation plays a strange role in the relationship between elected representatives and slum dwellers. Many officials, as already noted, justify the absence of sanitation with the argument that migrants should not be encouraged to move to the city – as though migrants came only to defecate in toilets. At the same time, many elected officials promise people toilets from the development funds they are allocated each year. Yet, most of these representatives never actually use all their allocated funds, and most slums continue to lack toilets. When representatives do follow through on their promises to build toilets, most of those built collapse after a few years and need to be rebuilt. Despite the reluctance of elected representatives to support truly lasting solutions, NSDF and Mahila Milan faced – and continue to face – a dog-in-the-manger response[3] from these same officials when the Alliance gets contracts to construct toilets themselves.

So, every one made promises, no one kept them, and while others criticised, the Alliance sought to assist the city – and soon after a number of other cities – to make sanitation happen. Their approach challenged the technical professionals who preferred to use maintenance issues as an excuse for inaction, rather than examining why maintenance issues kept coming up. But the effort was also directed to all the slums and their leadership, encouraging them to take up this issue strongly, and to demonstrate that they had a solution.

It was always clear that the solutions would be less than perfect. Some slip-ups would happen, some contractors might do a sloppy job, some communities would promise to maintain their toilet blocks and then not follow through. But the leadership of the federation was clear. Everyone was learning, no matter how superior the city's technical people might feel, and that was the important thing. Taking the risk of exploring a less-than-perfect solution, while always keeping the ideal in front of them, was the real vision of the NSDF and Mahila Milan leadership. Fear of failure – fear of being criticised – never stopped them; it only showed what new skills needed to be adopted to improve the situation.

3 Ile stopping others using something you have no use for yourself.

These toilets are not theoretical ideas on paper, but *real buildings*, built in *real slum settlements*. They are all much visited, much-talked about, much analysed both in and outside the NSDF/MM network. Their mistakes and successes are widely ruminated on and provide start-up fuel for the projects that follow. The people who build them take their experiences to other settlements and other cities, and become trainers themselves. In this way, the evolution and refinement of ideas occur in practice in different situations. Each new toilet that is built is better than the last one. Each time it gets easier and smoother, the "circle of preparation" shrinks and the number of people with new impressions and new images grows considerably. It is the NSDF/MM federations' ability to link people together and to help them create control of these processes that makes this possible.

It would be stretching the truth to suggest that all these toilet constructions emerged entirely and spontaneously from the communities in which they were built. The lack of toilets is one of the most frequently and urgently articulated problems of slum-dwellers. But it is important to understand that all these projects involved a potent, external intervention – somebody coming in from outside these particular communities, shaking things up, asking questions, posing challenges, and intentionally pushing forward the steps required for communities to plan and carry out solutions to their own sanitation problems. In this case, the outside group was the NSDF-MM-SPARC Alliance.

It is clear here that this process, as it began to spread to other cities in India, was not just about building toilets. It was also about building organised communities. A community toilet-building programme provides a big push to communities to undertake projects. It creates an environment that makes room for experimentation and allows for mistakes to be made and learning to happen. When poor communities in cities around India undertook the process of designing, building and managing their own toilets, it brought a change in roles. They were no longer on their knees begging the city for services. They invited city officials to come and inspect what they'd done. They owned the process, and they were the ones telling the city how they would like it to move.

Mahila Milan women making laadis using wooden frames

Women's role in toilet building

The federations see women's participation, especially, as critical to this whole process. Toilet building is an entry point to more extended complex projects. If women in poor communities understand how toilets are constructed, and can participate in the construction, they are better equipped to manage and maintain the toilets. Eventually, these women can go out and train others, and gradually it becomes possible for all settlements to build their own low-cost toilets where they are needed, and to manage and maintain them. Community toilet building initiates women into a range of skills, not only in masonry and material production and toilet maintenance, but also the kinds of project management skills that they can later draw on in their communities' house-building projects.

Toilet Talk, 1997, page 4

So we shout...

When communities take over... When communities take charge of sanitation in their own settlements, lots of good things happen. For example the issue of how toilets are looked after: the best description we've heard of how community relationships and common sense can lead to strategies for keeping toilets really clean comes from Aisha Marchant, a Mahila Milan leader in Dindoshi Colony in Mumbai. "Suppose we have 15 people using one toilet. If that toilet is left dirty, all of us will notice. We know that the toilet was soiled by one of our 15 members, because we keep it locked, and nobody else from outside our group has the key. So we shout! Who has gone and spoiled the toilet? Why didn't you pour water inside? Then, next time, it doesn't happen again. When everybody from outside uses the toilets, who can we shout at? Nobody is responsible for spoiling or for cleaning the toilets. Nobody cares."

Toilet Talk, 1997, page 7

Figure 4: The NSDF/MM toilet resume

The NSDF/MM toilet resume :

Bombay		
Dharavi	7 seats	with children's latrine
P. D'Melo Road	4 seats	with caretaker room, night shelter
Jan Kalyan	32 seats	(in 4-seat blocks)
Dindoshi	25 seats	*(planned)*
Kanjurmarg	300 seats	*(planned)*
Kanpur		
Sangam Talkies	10 seats	
Burma Shell	10 seats	with 2 women's bathing rooms
Shiv Katra	10 seats	office, courtyard, caretaker room
Sarvodaya Nagar	10 seats	with 2 women's bathrooms
Saidullahpur	10 seats	*(planned)*
Gangaganj	10 seats	*(planned)*
Jajmao Tanneries	4 seats	*(planned)*
Mariampura	10 seats	*(planned)*
Bangalore		
Hanumanthapuram	3 seats	with 1 bathing room
Basha Compound	4 seats	
Doddigunte	10 seats	
Malasandra	20 seats	(in seven and six-seat blocks)
Basti Compound	6 seats	
Kaval Byrasandra	40 seats	*(planned, in 4 ten-seat blocks)*
Chandra Layout	50 seats	*(planned, in 5 ten-seat blocks)*
Vinobanagar	10 seats	*(planned)*
Jakkarana Kere	4 seats	*(planned)*
Shanbhogana Halli	8 seats	*(planned, in 4 two-seat blocks)*
Coimbatore		
Muthu Chetti Palayam	16 seats	(1 ten-seat and 1 six-seat block)
Lucknow		
Sabzi Mandi	20 seats	with women's bathing room
Moongphalli	20 seats	*(planned)*
Janata Bazaar	10 seats	*(planned)*
Rajendranagar	20 seats	*(planned)*
Hyderabad		
Ambedkar Nagar	4 seats	
Chintal Basti	18 seats	
Jagjivanram Nagar	12 seats	
Madras		
Arumbakam	8 seats	
Madurai		
Anna Nagar	10 seats	
Arun Dudhi Nagar	8 seats	

Source: Toilet Talk, 1997, page 32

Shack/Slum Dwellers International and the federations' sanitation agenda

The peer exchanges were not happening just in India. By 1990, well before the P D'Mello toilet was built, many Asian slum dwellers were visiting India and the Alliance through exchanges organised by the Asian Coalition for Housing Rights. In 1991, exchanges also began with South Africa, a rich experience for all concerned. Rose Molokwane, one of the first township leaders from South Africa to visit Mumbai, said, "Mahila Milan in Byculla is our university for slum dwellers. They not only teach new things, but open our minds to what is possible. Their generosity is unbelievable." As time went on, every visit to India included a day spent just discussing toilets, their design options, and why NSDF and Mahila Milan champion the community toilet solution.

Through these exchanges between NSDF and Mahila Milan members and slum dwellers from other countries, it became clear that the issue of sanitation was not unique to Indian slums. Each time there was an exchange, whether in India or internationally, visitors inspected where their fellow slum dwellers in the other city "went". And almost everywhere it was a makeshift solution developed by households and their cities seemed indifferent to it.

When Shack/Slum Dwellers International (SDI)[4], the umbrella organisation for the federations of the urban poor, was formed in 1996, there was a realisation that water and electricity, having monetised value, were somehow being subsidised or even universally provided, but sanitation remained widely unacknowledged as a problem. When sanitation issues are raised, almost every woman in every federation within SDI leans forward with interest. In all SDI exchange visits, a visit to the toilet blocks became an integral part of that exchange in Mumbai. This helped visitors understand how choices are made; how contracts are provided and how federations manage negotiations with the community and municipality and undertake construction contracts. Federation members and their technical support professionals who came on exchanges often came from countries where cities make a contribution for sanitation – such as the Philippines. The exchanges helped to trigger an exploration and encouraged members to make demands on their own cities. This is not easy to do, but then neither was it easy to get to this process off the ground in India. NSDF and Mahila Milan took almost two decades to crack this process and demonstrate the value of sanitation to cities.

When the Millennium Development Goals (MDGs) were set in 2000, sanitation was included just within a sub-section of one of the goals. These sanitation targets remain largely unmet and in terms of global achievement, sanitation is one of the least successful areas. In discussions about water, sanitation and hygiene (the WASH sector), water and hygiene have always received more importance. When timetables were prepared for MDG workshops, for instance, sanitation invariably got the least time.

4 www.sdinet.org

SDI acknowledges that with such huge backlogs and with a greater institutional commitment to water provision in cities and national governments and international development agencies, sanitation is a tough issue to campaign for. It becomes still harder in the context of SDI's rigorous objectives: SDI believes that solutions have to come from what works for the poor; that cities have to be involved in providing resources and technical back up; and that poor people should be involved in design and execution in order to come up with solutions that work for them. More and more development agencies are allowing the state to abdicate its responsibilities to the poor and assume that the market will solve these problems. SDI believes that the market has a role, but that the state must make its contribution as well.

Within SDI there is a tradition around the manner with which its ritual processes are explored. Some communities, having acknowledged and articulated their needs as a priority, began to use the federation to explore the process. The solution begins by imagining what people would want, and the concept begins to take shape. Many of the early toilets constructed were such 'models' and federations joined each other to celebrate such manifestations. As confidence increased, government officials and technical professionals were invited to view what the communities had developed.

Like making salt

Sagira, one of the senior members of the Byculla Mahila Milan and veteran trainer of dozens of community toilet and house-construction projects all over India, makes an analogy with the process of making salt from seawater. You stir and stir and stir and stir, she says, until you're so tired of stirring. Just when you think nothing will ever happen, and there's no use carrying on with this eternal stirring, the salt crystals begin to form. They won't form without all that stirring. In the same way, solutions to complex problems don't happen overnight, but need the same sustained, faithful nurturing and push.

Toilet Talk, 1997, page 5

Grant makers and community contributions led to many cities exploring possibilities, and these innovations also moved to other cities and countries. Yet scaling up a process and getting the state government and city to buy in through contributing to the process remained a vital goal. These toilets so far were being undertaken on a case-by-case basis, wherever communities were interested in taking the concept of community toilets forward. Having developed this model and demonstrated that it worked in a lot of different places, the next step was to start finding ways to integrate it into routine municipal processes.

Table 1: The smelly facts about public toilets in Bombay

Number of settlements survey	151
Population (from NSDF/MM survey)	1,022,016
Municipal target toilet situation	
Municipal target	50 persons per seat
Number of toilets required	20,440 seats
Actual situation	
Total number of toilets built by municipality	3,433 seats
Number of non-working toilets	2,746 seats (80%)
Number of working toilets	687 seats (20%)

3. Technical details and the process of toilet building

After discussing how the idea of the community toilets spread in India and elsewhere, we now look at what actually goes into building these toilets. We have already touched on a few of the technical and design approaches employed in the very first P D'Mello Road toilet block. This chapter discusses more of the technical and design solutions that evolved over time, and also the more general principles and processes that contributed to this evolution.

First of all, it should be acknowledged that no two toilet blocks are alike. These toilet projects are all in line with some of the federations' fundamental concepts, which were developed in the 1990s and are still applicable to whatever the Alliance does even today.

But at the same time, all of them are different, and represent tailor-made responses to complex local needs and realities. The different toilet projects reflect different political climates, negotiating strategies, degrees of official support, materials markets, skill levels, site realities, access to sewer and water mains, and community dynamics. The projects present a range of toilet options, not a single type.

None of these toilets is perfect. Seekers of perfect solutions need read no further! Most of them were built under circumstances that could be called impossible by anyone's yardstick, and against some pretty tough odds. But every one of these toilets represents a vital investment in learning and human capacity. These are the building blocks of large-scale change, much more than perfect designs or innovative engineering. One of the NSDF-MM-SPARC Alliance's long-standing notions is that you should never allow your work to be held up while you wait for something else to be ready, or some other condition to be in place. You might as well just dig in and get going, since things will never be perfect, no matter how long you wait. Never.

In describing the nuts and bolts of these varied, imperfect and ever-evolving projects, a good place to start is with the description, dating back to 1997, of the "fine points" of toilet design. This takes some of the significant design features of a toilet block in Kanpur and compares them with those of a conventional government-built toilet, to show what difference quite subtle features can make. It should be noted here that these early principles do not refer to such basic components as water on site, electricity or connections to sewerage networks. This is because those essential features were part of what the municipality provided in each case.

The fine points of community toilet design

Toilets at central locations

In the NSDF model, community-toilets are not isolated "dirty places", but intentionally built in central, "nodal" locations and combined with community gathering spaces, so 'use' is automatically monitored, and upkeep is tied to the usability of these spaces.

Separation of men's and women's toilets

In the government model, the toilets face each other across a central space, without any separation of men's and women's toilets. This leads to hassling of women, lack of privacy, arguments about cleanliness. The NSDF/MM model is organised with two separate, back-to-back lines, one clearly for women and one for men.

Increasing privacy

The standard-issue government "Aqua-Privy" model is about 4-feet above street level since it sits on top of its own septic tank, and is accessible from both ends.

When the doors to the stalls deteriorate, as they inevitably do, passers-by can look right up into the stalls from the bottom-up. In the NSDF model, even if the doors deteriorate, the 5-foot walls outside the stalls block the possibility of any peeking.

Organisation for heavy use

The 10 stalls in the government block are ranged around a large central space, accessible from both ends. In the morning hours, when competition for use of the toilets is heaviest, there is much acrimonious jostling and queue-breaking in the competition for toilets. The NSDF/MM block's layout, with its two lines and narrow passages, is an effective "crowd-organiser" and strife-avoider. Two lines form and lead right out of the enclosure, while at the toilets' end, one person waits outside of each stall. When that person goes in, the next person in the queue takes his place.

Door design

The stalls of both models are pretty small. To make it easier to move in and out of the stall, when you're carrying a bucket of water, the NSDF model has doors which swing both ways. The government model has inward-swinging doors which force you to press against the not-so-clean inside walls to open the door and get out.

Planning for children

When queues for toilets are long, children often get pushed aside, and end up being forced to squat outside, where they soil the drains and periphery. There are also real dangers of very small children falling into trap-less aqua-privy toilets and drowning. The federations take the needs of kids seriously and have designed special, shallow children's latrines, but so far, these have only been tested in the one toilet at Dharavi.

Plenty of ventilation

The stalls in the NSDF toilet block are ventilated on all four sides, with ventilation grilles placed high up on the wall between the back-to-back stalls, one-foot gaps at the top of the side walls, and gaps above the six-foot doors, so that the stalls are ventilated on all four sides and bad smells have four means of escape.

Clean outside walls

In the NSDF toilet block, the toilets are inside an enclosure. The exterior walls of the enclosure have no plumbing and are therefore "clean", so the toilet block has a clean public face. These clean outside walls work better in crowded conditions, where other buildings might directly abut the toilet block. This also allows toilets to be built up against existing compound walls without befouling them. This cuts the compound wall-building bill. Compare this with the government toilet blocks, whose exterior walls are the dirty backsides of toilet stalls with rusty, leaky plumbing.

Toilet Talk, 1997, page 9

Technical ideas and construction procedures: keeping it simple

In these first toilets the technical emphasis was not on snazzy new construction or sanitation technologies, but on known systems that ordinary people with basic skills could be a part of. All the toilets use simple plastered brick walls, sheet roofing and straightforward plumbing.

All the toilets were built by communities, with a little expertise and training help from the Mumbai team. In most, only one mason and one or two helpers were hired, and all the other labour, as well as construction supervision, was contributed by women, men and children from the communities.

It takes a small team about two weeks of actual construction time to build a 10-seat toilet block of the sort described in this report. But in most of the projects, this time was spread out for various reasons. The toilets were built at a "community pace", which means that room was made for dealing with money troubles, interference, squabbles, holidays, festivals, somebody's wedding, and lots of training.

Toilet Talk, 1997, page 8

These toilet blocks are not only practical in design; they are also cost-effective. Costs and exchange rates keep changing, so the real issue here is not to discuss what a community-built toilet costs, or how much more cheaply the communities can make it, but rather to indicate that, by taking control of design, construction and maintenance, the communities are able to use resources effectively. Community members developed the plans for these toilets: they estimated the materials needed, and by checking local prices they worked out the costs, including the labour costs of skilled and unskilled workers. The Alliance always kept some grant money aside to correct any mistakes while communities and their leaders were learning the process as they explored construction and negotiation. If we are willing to generalise based on our own experience, though, it is fair to say that community-built toilets cost only 20% or 30% as much as government-built toilets.

The cost-saving measures listed here were all developed in the mid-1990s, but they remain relevant today.

Toilet Block 10 was constructed in 2007 under the Mumbai Sewage Disposal Project

Some technical and cost-reducing measures in the toilets

Single pipe line

In most of the NSDF toilet models, back-to-back lines of toilets feed directly into a single central pipe line, with a single inspection chamber at the end. This arrangement cuts in half the expensive underground plumbing bills of the typical separate-line arrangement in the Government toilets, with pipes on both sides.

Reduced wall area of superstructure

Arranging the toilet stalls back to back, with outside compound walls that are only five feet high, reduces the wall area of the entire superstructure and cuts down construction costs by reducing the use of bricks, cement, sand and labour.

Community built

Because communities planned all the toilets, managed the construction and provided most of the unskilled labour, the bill for hired skilled help was dramatically reduced. Most costs included the wages of a single mason with two helpers, and a day or two of help from a special sanitation plumber, who can often be found within the communities. There were no middlemen, no contractor's profits, no cream for anybody to skim off. These are 100% fat-free toilets.

Direct sewer connections

Toilets with direct connections to sewers are much cheaper and simpler to build than toilets with their own on-site sewage treatment, because they don't require the costly labour, excavation, building materials and extra piping involved in building soak pits or elaborate septic tanks. Because of this, whenever municipal sewer lines were available near the building sites, the toilets were connected directly to sewers.

Keeping it simple

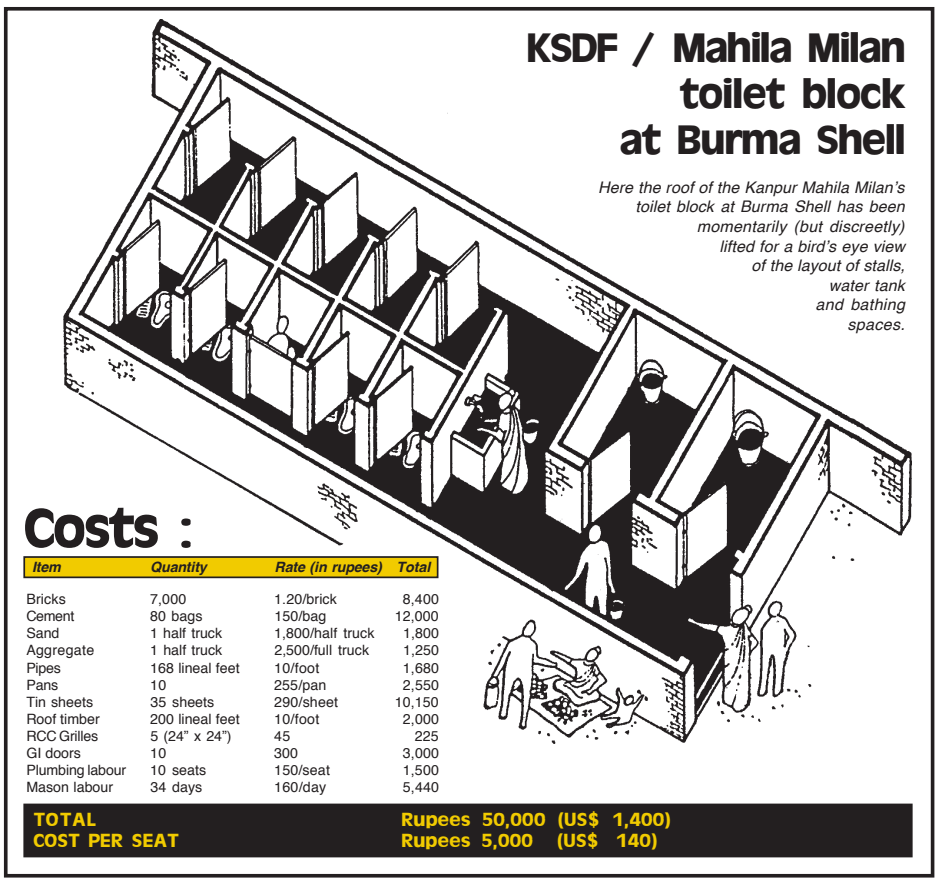
Most of these toilets stayed away from fancy construction tricks, and made use of simple materials, locally-understood systems of construction and straight-forward plumbing. Sometimes, the best "cost-reduction" innovation means passing up high-tech, "alternative" techniques for the simple, sensible, systems that can be handled locally that everybody else is already using.

Pour-flush latrines

All of the toilets use the simple pour-flush latrine system, where a half-bucket of water thrown in the pan provides enough water and force to clean out the pan. Pour-flush latrines have their own water seal, which keeps smells from coming into the stall, do not require costly venting or flushing hardware, use very small amounts of water, and can be flushed with second-hand or dirty water and still work fine.

Toilet Talk, 1997, page 10

Figure 5: KSDF/Mahila Milan toilet block at Burma Shell Kanpur Slum Dwellers Federation Mahila Milan Toilet Block Costs in 1987



KSDF / Mahila Milan toilet block at Burma Shell

Here the roof of the Kanpur Mahila Milan's toilet block at Burma Shell has been momentarily (but discreetly) lifted for a bird's eye view of the layout of stalls, water tank and bathing spaces.

Costs :

Item	Quantity	Rate (in rupees)	Total
Bricks	7,000	1.20/brick	8,400
Cement	80 bags	150/bag	12,000
Sand	1 half truck	1,800/half truck	1,800
Aggregate	1 half truck	2,500/full truck	1,250
Pipes	168 lineal feet	10/foot	1,680
Pans	10	255/pan	2,550
Tin sheets	35 sheets	290/sheet	10,150
Roof timber	200 lineal feet	10/foot	2,000
RCC Grilles	5 (24" x 24")	45	225
GI doors	10	300	3,000
Plumbing labour	10 seats	150/seat	1,500
Mason labour	34 days	160/day	5,440
TOTAL		**Rupees 50,000 (US$ 1,400)**	
COST PER SEAT		**Rupees 5,000 (US$ 140)**	

Source: Toilet Talk, 1997, page 11

The issue of women's sexual harassment

SPARC, NSDF and Mahila Milan recognise the potential risk of violence against women when using toilets. In SPARC's experience, these risks depend on the provision of toilets within the location in which people are living. Nallari (2015) did all her field work with the Indian Alliance in Bangalore, and her observations and those of many others report on the level of harassment that women face when they have no option but open defecation, and/or face poorly lit paths to a toilet without supervision. This is also reported in Bapat and Agarwal (2003), which shares the experience of federation members before and after toilet improvement.

The Alliance does not champion community toilets over individual toilets. There are households that are supported by the Alliance to complete individual toilets and the Nirman Annual Report (2015) reports on individual household loans for toilet construction. However, much of the work of the Indian Alliance has been in very dense slums where dwellings are less than 200 square feet (often considerably less than this) and lack access to water and sewerage networks. In this context, individual toilets are not a practical solution. Therefore the community toilet emerged as the alternative. Existing public toilet provision was very poor and was often not successful in protecting women from harassment. Hence the Alliance does champion community toilets over public toilets.

Initially when the Indian Alliance began to work with sanitation it suggested four toilet seats to be shared by 10–12 households. However, in practice this was not possible due to a lack of available space. After extensive work with local groups, the design for the community blocks was agreed. This was to build two floors, which would enable men and women (and children) to have separate spaces, and to construct a second storey with a community hall thereby earning extra money and enabling the hire of a caretaker. The caretaker is expected to be present night and day, thereby providing security and protection for the users of the block. In the experience of the Alliance this is necessary to provide a safe and secure space. As described on p 24, the particular design of the block developed to minimise harassment by using a different configuration of male and female toilets.

In practice the density of dwellings is also important. High density areas mean that women do not have to go so far to use the facilities and that the dwellings proximate to the pathways.

Toilet blocks are not without problems and insecurity is one of the concerns that users may have. If women and/or men are concerned about the facilities then this is discussed in the community and solutions are agreed. If federation networks are concerned that problems are being overlooked, then they can support community members to share their concerns and amplify their voices through community exchanges.

The children's toilets

The children's toilet facility is a good example of how the Alliance develops strategies, observes what works and what does not, and keeps improving the model as it continues to scale up what it does.

Back in 1987, when the pavement dwellers were coming up with designs for their relocated housing, they agreed on community toilets to both save space and reduce construction costs. When the Mahila Milan team visited slums with community toilets and noticed the poor maintenance due to lack of water and electricity, it also found that children, when they needed to go, just squatted outside the toilets. They were scared of falling in the toilets, and they were also pushed out of the way by adults. Mothers, too busy to supervise, encouraged them just to go outdoors instead. This was hardly a solution, since it left the area fouled with children's excrement. So when the women built their toilets, they decided to build a toilet block that would work for children.

Initially it was just a simple shallow open channel that children could squat over, and that could be flushed all at once. This provided a fine alternative and children no longer defecated in the open. The women were okay with this strategy and so the city and community demarcated space for separate children's toilets. One slum dweller in Bangalore developed a Mahila Milan children's toilet prototype with precast green and orange seats, which were also used by many slum contractors. Others who did not have access to these constructed smaller squat plates (see middle photo). There were numerous variations on the theme. Handlebars were added to help children balance when they squatted. Walls were often decorated with brightly coloured tiles. Some even had a plastic abacus on the handlebars.

Over time, however, these separate facilities, built to meet a very specific set of needs, were used less and less as caretakers did not like having to clean them constantly. But through discussions with city, community and technical professionals, smaller toilets for girls and boys started to be built within the main blocks.

Behind the practical and cost-effective features of the various versions of the community-built toilet blocks are a number of principles and concepts that are summed up in the 10 big ideas that follow.

A simple pre-fabricated shallow open channel that children could squat over.

Variation on the open channel style decorated with tiles.

Small Indian style pans that children can squat over and that are easy to clean.

10 BIG IDEAS for community sanitation

1 **Communities can make good decisions about sanitation systems that match their capabilities, budget and settlement realities.** Providing basic services to a big city works like a vast field of shared responsibility and involves a lot of people: officials setting priorities, engineers drafting plans, contractors doing civil work, water and sewage departments overseeing maintenance, and special interest groups running the process. At the edge of this field of decisions are all the people who need water, taps and toilets. It's generally assumed that these people, especially the poor, cannot be involved in infrastructure decisions, since these are technical matters over their heads. In fact, the poor can be involved, and technicalities of toilets, water supply and sewerage are not over their heads. Poor people can analyse their own sanitation needs, can plan,construct and maintain their own toilets.

2 **When communities manage their own sanitation, it's cheaper and more efficient, good for the poor and for the whole city.** When poor communities design, build and manage their own shared toilets, it brings much-needed basic services to a large portion of the city's population traditionally excluded from infrastructure planning. This is not only a matter of equity, but of fundamental urban equations: if soil from half the city's population goes into the river untreated, it's not only bad news for the poor, but for the whole city. It costs the city at least Rs 25,000 to build the same toilet that communities can build for Rs 5,000. Every community-built toilet saves the city Rs 20,000. That adds up to millions of rupees when you look at the staggering toilet deficits in Indian cities. And, because community toilets are maintained by communities, the city frees itself from long-term maintenance headaches.

3 **The poor are an enormous and untapped source for solving urban problems. They can be catalysts in changing Indian cities.** The poor are already the designers and implementers of India's most far-reaching systems of housing and service delivery. These systems are not ideal, they are largely "illegal" and often inequitable, but they reach down to India's economic bottom, and cover more ground and more lives than any government programme could ever do. Officials, with their rules and procedures, are apt to view this as a species of misbehaviour, and seek ways to control or punish what is actually a reasonable and ordered response to urgent necessity, where no "legal" alternatives exist. This human creativity in ragged clothes is one of the great, unchannelled sources of energy in India. It makes solar power look like wet matches by comparison. Imagine if this creative energy were legitimised and assisted, the way scientists are given laboratories and research grants, to refine their solutions!

4 **There are efficient ways to divide the tasks involved in bringing basic services to poor communities - or big pipes and little pipes.** The mind-boggling complications of city-wide infrastructure are made simpler if you think of it as involving big pipes and little pipes. The big pipes which carry and treat water and sewage are at the big end of the system. Only the city can handle these big pipe items, which involve politics and big budgets. Toilets and drainage lines, on the other hand, are genuine little pipe items and don't really require the city at all. They can be planned, installed and maintained locally, by communities. The federations propose a sort of deal to cities: stop wasting money and effort on the little pipe items that slum communities can handle themselves, and concentrate on the big-pipe items like expanding the sewerage and water-supply grids, that they can't. If the city can deliver sewers and water supply to the settlements, communities can take over from there.

10 BIG IDEAS for community sanitation (continued)

5 **People in poor settlements are experts and best qualified to make decisions about improvements in their own communities.** There is a myth going around that only experts with advanced degrees can plan improvements in slums. But the realities of life in India's slums are something slum dwellers themselves understand best. This sounds obvious, but those who make decisions about slum improvement programmes operate on the assumption that they know best, and leave it to their experts to do what people living in slum communities can do better. Plus, if experts are responsible for the deplorable state of infrastructure in Kanpur or Bangalore, there are some serious holes in this "expertise." Perpetrators of this myth forget that slums are home to those who actually build Indian cities: masons, pipe layers, cement mixers, brick carriers, shuttering designers, stone cutters, trench diggers and metal fabricators etc. If people with these skills aren't experts, then who is? People in slums are the best experts to plan and carry out improvements in their own settlements.

6 **Communities don't need handouts, they need space to develop their own commitment to improving the lives of all their members.** Toilets are one of the most communal improvements and can do a lot to bring communities together – everyone will use them, will have feelings about them. Toilets are central facts of people's daily lives, hard to ignore. A toilet building project is small enough to be planned and built within a small budget and time frame, but big enough to start many things happening: women get involved, people learn to understand their problems, to work together, to tap skills within the community, to manage money. If you squat along the nala (open drain) all your life, it's pretty hard to imagine toilets not being dirty places, but when they are clean and well-cared for they become points of congregation! The next step is realising that slums don't have to be dirty places either, but can be beautiful communities in which to live.

7 **It is important for people to feel a sense of ownership and identity as a community.** In terms of sanitation solutions, there's an obvious but important difference between public toilets (for the public), and community toilets (for slum communities). This distinction is important because building a toilet in an informal settlement, like any amenity, changes people's perceptions about their own settlement. Public toilets are built for whoever happens to be passing by, and assume transience, anonymity, strangers coming in for a piss. To build a community toilet is to acknowledge that a community does exist, and that inside that community live women, men and children who have needs that are legitimate. A community toilet is an asset that belongs to and is controlled by a community – not by the city, not by the government and certainly not by a passing stranger. Within the murky politics of land and tenure in Indian cities, the construction of a community toilet can be a powerful manoeuvre, especially if it is built by the community itself.

10 BIG IDEAS for community sanitation (continued)

8 **Golden Booboos: making room for communities to learn, as we all do, by experimenting and by making mistakes.** Solutions to complicated problems do not happen overnight, they come from trial and error. You have to do something more than once and make plenty of mistakes before you get it right – all of us learn that way. It's no different for poor communities, where solutions are a lot more complicated. To those mistrustful of community involvement in urban improvement, mistakes only confirm entrenched attitudes towards poor people, who are thought to be lazy, bungling and sneaky. Built into many community-participation programmes is an "only one chance" clause, which doesn't allow the training capital of mistakes to be reinvested in subsequent learning processes, but lops off participation at the first whiff of error. Poor communities are prevented from their own experimenting because they have no resource margin to absorb those mistakes. This is the crisis of poverty, and this is why these toilet projects make room for and even encourage mistakes.

9 **People on the move: When poor people train others, it breaks isolation and creates a richly complex field of ideas in motion.** People in communities that have built their own toilets are the best teachers for others interested in doing the same. Whether or not their project was successful, their experience can give a head start to other communities, which shouldn't have to start from scratch every time. In order for skills to be refined and spread around, it's important that as many people as possible visit the toilets, participate in their building, and return to their own settlements with heads full of impressions. This way, the learning potential of these experiences is maximised, and their successes and failures are discussed and digested with many other peer groups. Each time, the circle of preparation gets smaller and the process gets easier. Each time it's cause for a festival, and each festival draws a larger crowd.

10 **Developing standards that are realistic for poor communities, through experimentation and practice.** When cities build toilets in slums, they pull out the same old standard designs – expensive, difficult to maintain and mostly doomed to failure. Despite their uninspiring track record, these standard models are duplicated again and again, partly because nobody has a better idea of how to do it. Fresh, workable standards for community improvements are badly needed. But they can only emerge from the realities, which poor people understand better than bureaucrats and can only be developed through practice. These toilet projects are a working search for better standards – standards for financing, designing, constructing, and maintaining toilets which are replicable, and which work within the realities of poor communities. Some ideas they test catch on, others don't. It is from this fertile process of experimentation that new standards emerge.

Toilet Talk, 1997, pages 6 and 7

4. Exploring the vision of city-wide access to sanitation for slum dwellers

Whenever slum dwellers demonstrate any alternative solution, there is an immediate question: can this be taken to scale? The Alliance ultimately wants solutions to be "city-wide". However, just knowing something should be city-wide rarely produces a city-wide solution. Moving in this direction meant moving from grant-supported examples of what organised communities could do, case by case, to solve their own sanitation needs, to involving municipalities as active partners, with slum sanitation actually figuring in their budgets. While none of the current responses is yet "city-wide" in the sense of serving everyone in a city, the activities have established the kinds of partnerships and processes that make this a viable goal and bring it into the mainstream.

The trajectory towards city-wide sanitation is a slow and difficult one. It means maintaining community pressure to produce and sustain a multi-decade financial and organisational response from the city. Somehow "targets" and campaigns can imply quick, time-bound responses that are supposed to solve everything. But it is important to recognise that the delivery of sanitation has deep political implications. It is not about just building toilets in a few places, but ensuring support over decades from the municipality's side, even in the face of a changing political landscape. It also means changing the habits and practices of slum dwellers who have practiced open defecation for generations. This was the norm in rural areas, and it continued to be so in cities in the absence of more reasonable options. So both city administrations and communities have to make the transition to new practices.

As the exploration of sanitation for slum dwellers expanded from city to city, and as exchanges brought the leaders of these city federations to Mumbai, it became clear that these leaders were very much aware of multiple impacts of working on sanitation. Women wanted a safe and dignified space to defecate, and women were an important constituency for the federations. A focus on toilets also brought slum dwellers together to plan and execute a concrete, achievable objective. With evidence of what they had developed themselves, and their ability to demonstrate that their community toilet blocks worked better in more situations than did other possible sanitation solutions, the dialogue with municipalities in many places was initially focused on this objective.

Surveys and slum profiling were well-established tools for learning in the federation, processes that documented each slum community and its residents, and that could be used in negotiations with local governments. The data on sanitation from these surveys was very powerful: it demonstrated the needs of the poor in this regard, and helped communities to aggregate their demands for sanitation when they made representations to the city authorities.

The initial precedent-setting community toilets were constructed with grant funding (although in the case of the original P D'Mello Road toilet, the funding did in fact come from the municipality). Through all these grant-funded toilets, the Alliance demonstrated the kind of solution communities needed and what the poor could do by themselves to achieve it. Gradually, examples began to emerge of cases where, through negotiation, slum dwellers and city governments were together designing and financing toilets with city funds, with communities successfully managing these toilets. NSDF and Mahila Milan now had many champions in municipalities who saw this strategy as a means to address the slum sanitation deficit. The important thing was to demonstrate that the Alliance could best handle the dialogue with residents, creating their organisations and assisting them to maintain the toilets. The job of the city was to provide the funds for capital construction.

Despite the fact that these various elements were in place and becoming more routine, it was still a quantum leap even to start imagining the possibility of developing genuine city-wide slum sanitation strategies. Clearly this vision grew out of the experience of working in many cities, having dialogues with many city and state government officials, and constantly reviewing what was being explored. It was a collective vision, one that conceived of stages and phases through which change would take place. In hindsight it seems so natural for this kind of collective vision to have produced and organised learning, coming up with distinct processes and systems. But in practice it took time, and was extremely messy and full of problems and challenges. Some of the insights on the way to this vision seem clear in retrospect and may be useful for others.

Sanitation was both a means and an end. Access to safe sanitation is of course a clear and important end in and of itself. But it was also a means in the sense that it enhanced the value of joining the federations for slum dwellers, providing them with a path to move from fearing the city to entering into dialogue with it; and, through sanitation, exploring access to tenure and other basic amenities. It is often easier to discuss sanitation than it is to discuss land tenure, and through these interactions, representatives of cities and municipalities begin to change their views of slums and slum residents.

Collective risks were taken. When the federations start something new, mistakes get made, and challenges keep being flung at the leadership. However, these risks get better managed as more people explore the strategies in several locations. The distribution of risks is spread, and the learning becomes greater.

A bottom-up advocacy approach was demonstrated. People seldom think of slum dwellers as capable of creating change from below. These toilet blocks demonstrated what they could do and how. NSDF and Mahila Milan believe that there is a clear and effective path in exploring possibilities, testing them, getting buy-in from communities, sharing this strategy with the city through precedents, and then exploring an expanding scale in partnership with the city.

The deep opposition to community sanitation had to be challenged. Without even considering the production and demonstration of options, most professionals and administrators are against community toilets. They do not believe that community toilets can be maintained and or that solutions can be taken to scale. Of course the problems that they raise do exist, but they need to be resolved, since community toilet blocks are the only possible sanitation intervention in dense un-serviced slums.

It is necessary to build slum federations' collective ability to champion this particular process. Too many NGOs tell communities and cities what to do but never actually involve themselves or the communities in the process of exploring alternatives for a workable strategy. What our experience has taught us is that the perfect solution never comes with the first effort. It evolves through trial and error. Even more importantly, this set of capacities and skills has to become "owned" by community leaders. Ultimately, becoming a critical stakeholder in solving community problems requires patience, capacity, and confidence building. It calls for the federation leadership to give direction, and the assisting professionals or NGOs to assist and support, not lead and guide.

Most slum households have basic construction skills. NSDF and MM began to envisage creating a cadre of construction companies of the poor for constructing toilets. To obtain access to city funding, the federations would have to bid for projects with private contractors. What the federations might lack in construction experience, they more than made up for in their ability to organise communities. For this actually to happen, the terms of the procurement process would have to be changed to ensure an equal playing field. For the first time, the federations began to explore the basis on which construction is contracted and to consider how this might be improved.

The cycle of action, reflection and learning has to accompany the process. Few concepts are converted into perfect solutions. There are many failures, imperfections, mistakes, and mismanaged actions. Only experience and monitoring produce refinement and learning. There are no shortcuts. Each phase involves its own learning and ultimately the city and community have to develop joint learning processes. To date this has been best achieved through the monitoring process developed jointly by the Mumbai municipality and federation in 2012, a process which is still underway.

A whole community of leaders across the Alliance had to step up to make this happen. To achieve something on this scale, there has to be substantial mobilisation of communities, either while undertaking the programme or beforehand.

By 1998, the dialogue and negotiations for the large Mumbai and Pune projects, which are described in detail in their own sections later in this chapter, had sharpened and confirmed many of the emerging insights, articulating a vision that drew the attention of national and global debates on this issue. More and more people began to invite the Alliance to present its work on sanitation at workshops and meetings, both nationally and internationally.

More cities also began to invite us to discuss sanitation in the slums in their jurisdictions. When their city budget allocations were reviewed as part of these discussions, it became clear that there was usually unused funding for slums and sanitation. In other words, there were available resources, but no intention to actually put them to use.

In all cases, when the relationship was pursued, it was because someone in the administration was excited by the federation's proposal. This person would then deepen the dialogue and persevere to explore the possibilities. The pressing need for scale that emerged from these conversations would suddenly fuel the discussions, which began to be referred to at more and more events. Meanwhile, the Alliance continued to develop its institutional capability to help establish organisations of the poor, build their capacity to learn, and share their knowledge and dialogue with the state.

Facing the risks

At this early stage, the construction contracts drawn up with cities did not cover any of the financial burden of building community capacity and creating the organisations that would be able to manage toilets. This was all financed by grants to the Alliance. The Alliance also had no idea at this stage what the scale of its involvement in sanitation projects would become, and what risks were attached to this project delivery – financial, technical, and political risks, as well as risks to our reputation. This only became apparent in hindsight. The paradox is that if these risks had been known in advance, the projects would never have been undertaken and none of the subsequent breakthroughs would have occurred.

To start with, there were the risks to our reputation as an organisation. Initially, the Alliance and the federations were set up institutionally to build, mobilise and federate slum dwellers. We had shunned service delivery. Yet clearly sanitation was only going to be accessed by slum dwellers if the Alliance and its membership took the lead. No one in the Alliance had the necessary experience, and there was huge pressure around completing work on the toilets. Trustees, friends and peers were concerned about the potential for things to go awry, and the potential effect on the organisation's reputation. But after discussing these concerns, the leadership of SPARC, NSDF and MM embraced the risks because this seemed to be the only way to champion this process and demonstrate that it was possible to take it to scale.

The fact that we were doing this work with community contractors, but also with architects and engineers, who had never undertaken slum projects at this scale, meant that we were all learning to approach working at this scale together. There was a lot of animosity, first of all, from politicians and private contractors around the large contracts involved. There were also both real and alleged mistakes on many fronts, and the work of the Alliance was publicly mocked. Many challenges, crises and mistakes occurred when communities took on these projects (and they continue to occur). Over time we have resolved and sorted most of them. But they were easy for detractors to identify and publish in newspapers and journal articles. None of these detractors acknowledged the unprecedented scale of the approach, the fact that state resources for informal settlements were finally being used – or that the mistakes were never abandoned or left unattended. In hindsight it was as much a criticism of community-managed sanitation as it was of the organisations who championed it.

There were also the huge financial risks. Our main concern at this stage had been to ensure local communities and organisations were included in the design specifications and managing construction. Given the relevant city budgetary allocations, we assumed, incorrectly as it turned out, that the finances would then flow automatically. What we found, rather, was that the first exchange of funds went in the other direction: we had to guarantee project delivery and performance upfront by putting up 5% of the budgeted cost of the project. But beyond that, because the cities never paid early instalments on time, we generally had to cover as much as 35% to 40% of the construction

costs before any funds started to come back to us. Corruption in municipalities often complicated and delayed the financial transactions. The scale of the project also required transactions with banks, which were fearful of lending money to a non-profit with no securitised assets. The Alliance's capacities were stretched to the limit, leading to unimaginable stress levels. We were only able to manage the situation because we had stable grants subsidising the organisational support we provided. (This demonstrated at the same time how such grants could potentially leverage much larger resources from the state to communities.) We also had financial support in the form of guarantees and interest-free capital from CLIFF, SDI, and Urban Poor Fund International (UPFI), without which these large-scale projects would have been impossible.[5]

Then, there were the technical risks. The city and the federations had to devise appropriate technical norms, so initially there were huge challenges and negotiations. On top of all the evolving technical and design considerations we have already discussed, most slums did not have access to sewers, water, and electricity. These were the three things that the municipality was supposed to provide, and without this provision, the toilets could not operate as planned. But there was no internal coordination within the municipalities to provide water (which was in their direct control) or with the electricity companies to provide the necessary connections to the toilets. For most of the toilets a sewer connection was not feasible, and so they required septic tanks, which meant they took much longer to construct.

The political risks have already been touched on. Politicians resented the large contracts that the Alliance was receiving. They also believed that these projects were interfering in an area that was in their domain. At the same time, they wanted projects to be completed in a hurry during their terms in office, which contributed to the tremendous pressure to rush, and often led to mistakes. Many such challenges came up as the projects progressed, and the lack of capacity within municipalities to work with communities exacerbated all these issues.

Having outlined the extent of some the challenges involved in tackling city-wide sanitation, it makes sense to go back a bit in time and to explore the initial forays. We will primarily discuss the case of Mumbai, along with the Pune experience from around the same time.

5 CLIFF is the Community-Led Infrastructure Finance Facility, set up by SDI and Reall (or Real Equity for All), a UK-based charity formerly known as Homeless International. UPFI, the Urban Poor Fund International, was set up by SDI to provide bridge loans to the federations. Both of these facilities have assisted the Indian Alliance to access startup capital and guarantees to take on projects. Such facilities have not been generally available to Indian NGOs, which may be one more reason why so few organisations explore this aspect of sanitation-linked construction.

An opportunity in Mumbai

As the federation's toilet-building experience expanded into other cities, an extraordinary opportunity presented itself right in Mumbai. In 1994, the World Bank began negotiations with the Municipal Corporation of Greater Mumbai (MCGM), Mumbai's local government body, to loan money for a large sewage treatment project in the city. This mega-bucks, mega-infrastructure project involved a large-scale expansion of Mumbai's undersized and overtaxed sewer system. Thanks to pressure from local NGOs, the World Bank set one condition for the loan – that the project also address the needs of the poor and, to our delight, include the building of community toilets in a selected group of slums. The project set a target of providing 20,000 toilets, enough for at least a million people at the less-than-perfect ratio of one toilet for every 50 people. (Mahila Milan and NSDF felt the ideal ratio was one toilet for 25 people or for four to five households.) When the Alliance was invited to explore ways to get involved, it saw a chance to test some of its ideas about community-managed sanitation at a much larger scale, and to strengthen a constructive partnership between the urban poor and the city government.

Twenty crores of rupees (about US$ 5.5 million at 1995 exchange rates) was assigned to the community toilet section of this enormous World Bank-financed Mumbai Sewage Disposal Project. This was the same amount the municipal corporation allocated each year in its budget for building public toilets, and then for the most part never used. Most of the toilets the municipality did build were not maintained and became unusable within two years, representing a considerable loss for Mumbai every year. The federation set out to use its participation in this huge sanitation project to show that community-managed sanitation was a much better investment.

The project's first task was a survey of existing sanitary conditions in the selected slums. An engineering firm was hired by the city to manage this feasibility study. When the additional municipal commissioner invited the federation to help out, it was agreed that the federation would be subcontracted to undertake the survey jointly with the engineers. As it happened, the 70 surveyors from the NSDF/Mahila Milan knew those settlements like the backs of their hands. They made a good team with the engineers, many of whom knew plenty about hydrology and invert levels (that is, base interior levels of pipes), but almost nothing about how people live in Mumbai's slums.

What the team found in the settlements was gruesome, almost beyond imagining: broken doors, overflowing septic tanks, latrines clogged with excrement, acres of surrounding garbage, entire toilet blocks deemed so hazardous that they had been boarded up by those they were intended to benefit. Where there should have been 20,440 toilets (according to the city's target of one toilet for every 50 people) there were only 3,433. And of these, only 687, or 20%, were in usable condition.

Aside from its contribution to the big sanitation project, collecting this data served several purposes for the Alliance. It pushed the Alliance to develop a strategy for data collection on sanitation, which is now used

routinely in the federations. The data itself was a powerful advocacy tool, and became useful in general advocacy for toilets. Since the survey was done by fellow slum dwellers, networking links began to be formed, and communities not aligned with the federations began to explore the possible value of becoming members.

On the basis of these grim statistics from the joint survey, the federation proposed to jump in headfirst, and begin tackling this sanitary war zone with some community toilet demonstration projects. Both the municipal corporation and the engineering firm agreed

the obvious next step was for the city to invest some of those sanitation project construction funds. A few communities could simply start building toilets in a few locations, with federation support to get things going, train communities to take on toilet-building contracts themselves, and test the federation's cost-sharing model. Communities would be constructing and maintaining their own toilets and the city would be providing the construction materials.

However, this simple, direct plan set alarm bells ringing at the World Bank, where another version of community participation held sway. The sanitation project came with its own army of project development consultants, who swooped down from their air-conditioned suites, full of collective disapproval for this simple strategy. The World Bank had other things in mind. Its idea was to set up a competitive bidding process, NDSF leaders noted that this approach pitted one community against another to be chosen for demo projects, and subcontracted NGOs rather than communities to do the work.

By the mid-1990s, the Alliance had certainly developed both the capacity and confidence to advocate for community toilets, and our ability to deliver construction and manage its supervision and finances was well established. However, with the World Bank involvement, many new challenges came up.

First of all, the numbers were huge. The contract was for 600 toilet blocks, each with between 10 and 20 seats. The volume of work was so large that the World Bank was not about to just "give" the federations the contracts.

For the first time the term 'procurement' came into our vocabulary. In simple words, it means the process and criteria by which whoever is commissioning the work selects the agency to do the work. As part of this process, a list of capacities is drawn up and weighted for experience. These capacities are then awarded points, so that one standard transparent method is known to all as the basis for the selection. All government institutions use this strategy, and many non-governmental agencies do also. The competitive 'tender' is announced through advertisements, generally in newspapers, which invite those who want to seek the contract to "make a bid" based on the terms of the tender. The tender document is a booklet specifying the terms of the competition, along with the format through which applications can be submitted.

The organisations that bid may ask for different amounts, their style of functioning may be slightly different, and they may have had different experiences in the past or have different amounts of money to invest in the process. But by and large, the bidding organisations are fairly similar. Most municipalities ask contractors to go through pre-assessments certifying them to do some specific jobs. So in the case of sanitation, Class II and Class III contractors, registered with the municipality, would ordinarily be invited to bid on this tender. (In India's contracting system, cities have pre-contract evaluations of contractors as class I, II and III. Class I contractors can bid for the highest-value projects. And then those who bid lowest get the contract.) That is how most slum amenities, including sanitation, were contracted out in the past.

State may adopt BMC's slum sanitation scheme

Box 1: Procurement

- Procurement is not a complicated process. Even when a household gets its roof done, it undertakes a procurement process. In simple words it means being clear about what needs to be done, and creating a strategy to work out who can do it best through pre-developed criteria.
- What is significant is that procurement guidelines exclude some and welcome others, and the Alliance always has to ensure that it is not excluded.
- Procurement procedures can be changed if the outcome of the project does not get fulfilled by the guidelines, which means these procedures are never cast in stone, and can be challenged and modified.
- Negotiating for inclusive guidelines for slum dwellers should always be the focus in construction and other activities of community-linked projects affecting slums.
- Most importantly: when procurement precedents are set in one location, they can be used elsewhere. And when municipalities make these changes, the first time is toughest but other municipalities follow more easily.

What the Alliance learned in the end about procurement

This time, with the World Bank lending money for the project, its views and procedures also had to be considered. The Bank's procurement strategy divided the sanitation project into three components, each to be awarded as part of a competitive bidding process:

- **Part one** was to be the publicity for the project, informing all informal settlements about the project, and creating a bidding war among slums to get the municipality to build toilet blocks in which they, the slum dwellers, would contribute towards construction.
- **Part two** was to be the design of the sanitation block – developing community involvement in the design, and determining the basis on which the contract for construction would be awarded.
- **Part three** was the construction itself; the community would be encouraged to supervise this and to participate in it.

This ran counter to the Alliance's accustomed mode of operation. The federations did not like the implications of slums bidding against one another. And they had even greater reservations around the three-part procurement strategy, separating out mobilisation, design and construction, with different NGOs submitting bids to take on just one part of the process. Separating out activities this way might be useful for large engineering projects, ensuring technical and financial transparency and oversight, but the Alliance found it a cumbersome approach for individual community toilet blocks, regardless of the large number to be constructed. It would mean that each slum community had to have separate transactions with three different organisations. Instead, Alliance members felt it would be far better to carve out specific areas and have all three aspects of the process in each of these locations taken up by the same organisation. That way, as many NGOS as were willing to participate could take part, helping to facilitate community participation and optimising local involvement and ownership. Also, there were very few NGOs at that point working on slum infrastructure issues, and they needed to collaborate rather than be competitive in such a huge project. Creating competition when none of the organisations had ever worked at this scale was unproductive. When the World Bank was not willing to make these changes, the Alliance withdrew from these discussions.

Pune: the new theatre of action

It was at this frustrating point, after discussions between the Alliance and the Mumbai municipality had collapsed over procurement and tendering, that an opportunity opened in Pune in 1998. Ratnakar Gaikwad, a very committed additional commissioner from the Municipal Corporation of Greater Mumbai, had moved on to Pune as commissioner. Frustrated by the constantly stalled negotiations in Mumbai, he devised a sanitation programme for the city of Pune in several stages. He would have liked to give the whole contract to SPARC, NSDF and Mahila Milan, but on the Alliance's request he invited other NGOs as well. The municipality was to cover capital costs, land, water and electricity, while the NGOs and communities would design, construct and maintain the toilets. The strategy was to first demolish the dilapidated and unusable toilets that already existed in the city's slums, and to construct bigger, multi-storied toilet blocks, with rooms for caretakers as part of the design. The contracts for these toilets would then be distributed to all the NGOs involved.

Every locality in Pune was visited, with Mahila Milan holding meetings, especially with women. Designs were drawn up and toilets were first demolished, then de-sludged and reconstructed. Masons and carpenters from the slums with experience were supported to take on jobs, along with regular contractors. Everything was done in terrific haste, and the communities, Mahila Milan/NSDF and city administration worked hard together to make sure that the first phase was finished as quickly as possible. The commissioner's concern on this front was real. He was due to be succeeded as commissioner by a man who was not interested in sanitation – while he was in office, nothing would happen. This clearly showed the importance of leadership and motivation in addressing the needs of the poor in cities.

Because of the time pressure, there was no time to engage in capacity building first, then test the strategy and learn from it. Everyone was learning as they raced around getting things done. The downside of this was that many mistakes were made, and repairing them cost the Alliance resources that the city would not provide. The reality, however, was that if we had hesitated, we would have lost the chance to do this project and to learn from it. It's a difficult choice, but often when working on issues concerning the poor, plunging into untested waters is the only way to produce precedents. And a precedent was established in Pune, as the first location for community toilet building at this city-wide scale. The programme took off in a big way and virtually all slums were provided with toilet blocks.

Box 2: The powerful concept of the toilet festival

It was here in Pune that NSDF and Mahila Milan invented the extraordinary and powerful concept of the Sandas Mela, or toilet festival. Every toilet, after it was constructed, was inaugurated by whomever the local residents wanted to honour for their contribution. Some chose the community elders, some invited the commissioner; others chose the engineer or a Mahila Milan person who had facilitated the process. The festivities were like those at a religious event. The toilet facility was lit up; oil lamps, garlands and flowers were strewn all around; ribbons were cut; and coconuts (a symbolic object in a puja, or religious ceremony) were broken at the entrance to the toilet. People who clean toilets are among the lowest in India's caste system, and toilets themselves are stigmatised as sites of pollution, to be avoided when possible – hence the preference of many for open defecation. Transforming these toilet blocks by using symbols of festivity and honouring those who worked on them turned that cultural tradition upside down and removed the stigma. Renowned anthropologist Arjun Appadurai has pointed out that these ceremonies in effect treat the toilet as a temple, elevating it from the lowest to the highest.

"Consider the idea of a toilet festival", he says. "These two words are rarely used in India or for that matter anywhere in the world in the same breath. In bringing these two words together in a technological, political and social programme, the Alliance is in the midst of making a revolutionary cultural experiment with many important ramifications. To understand why this is a cultural revolution and why toilet festivals are turning the lives of the poor onto their heads in the best possible way, it's important for us to understand that toilets, human defecation and the products of that defecation are at the very heart of the problems of the poor and of how they are perceived. In many ways in India as in many other societies where there are many poor people, the poor have been treated somewhat like toilets. In the course of these toilet festivals, something quite extraordinary happened. These toilets, built recently by empowered communities of the poor, become converted into respectable parts of the public sphere. In having the toilets recognised as important technological initiatives, the poor are drawn into the space of politics themselves. Public officials are drawn into a terrain of politics in which the poor are their hosts and in some sense the poor shape the terms of engagement between formal authorities and informal structures, technologies and processes."

Box 3: Ratnakar Gaikwad and the importance of champions

Ratnakar Gaikwad, the Pune commissioner, comes up again and again in our story, and he is an excellent example of the critical importance of institutional champions and of sustained relationships in the uphill climb towards sanitation for slum dwellers. As a student he himself had lined up to use a toilet in the slums and was well aware of the implications of a lack of sanitation, especially for women. He first met with the Alliance in 1992, as an official in the Maharashtra Housing and Area Development Authority, to discuss land allotment and basic amenities for self-built housing by slum dwellers in Mumbai. (Maharashtra is the Indian state containing Mumbai.) Later, as the additional commissioner in Mumbai, he tried to facilitate the Alliance's engagement in the World Bank-funded sanitation project, although without great success. When he moved to Pune as commissioner, he was in a better position to make things happen, and he invited the Alliance to undertake slum sanitation there, leading to this important precedent of successful partnership between a municipality and the Alliance around a city-wide sanitation process. After continuing in different positions to advocate for slum sanitation, he next connected with the Alliance as the director general of the Yashwantrao Chavan Academy of Development Administration (YASHADA), a Pune-based training institute for government officials. This led to the incorporation of slum sanitation as a fixed component of the training of thousands of officials. Later still, as the commissioner for the metropolitan region of Mumbai, Gaikwad involved the Alliance in developing slum sanitation in nine of the municipalities in the metro region, as part of the Nirmal Mumbai Metropolitan Region Abhiyan campaign. As chief secretary of Maharashtra he continues to champion slum sanitation.

Back in Mumbai again: the Chikhalwadi precedent

It was only after they had started working in Pune in 1998 that the Alliance re-entered the fray in Mumbai, where the World Bank was still committed to a competitive bidding process and where the slum sanitation part of the huge sanitation project continued to face challenges from all sides. Not a single toilet block had been constructed since the Alliance had left the project a few years earlier, even though other agencies had applied and won bids, which were later cancelled. A Toilet Talk extract describes the mood.

Sanitation project stand-offs: mastering the art of constructive waiting

Project is right back where it started. It's been three years now since the city asked the NSDF/MM federations to find sites in Dharavi where communities could design and build toilets, using building materials and infrastructure mains provided by the city (with the World Bank project's help). The federations did all their homework – sanitary conditions were surveyed and analysed, sites were identified, lists were drawn up, the communities were ready to build toilets. But nothing happened. One of the project's original goals was to make room for local communities to devise their own toilet-building strategies. Instead, what has emerged is a complicated tendering process, which sub-contracts NGOs, and not communities, to do all the work, without any means for transferring ownership of sanitation processes to the communities. Instead of allowing many groups, with many different approaches, to develop a range of solutions to Mumbai's staggering sanitation problems, the project's bidding process pits different organisations and different approaches competitively against each other, and reduces community participation to a spectator sport. The NSDF-MM-SPARC team eventually decided to withdraw. This is a story about constructive waiting. When the city is ready to allow communities to construct the toilets, the federations are ready to play their part. The problem is, the city will have to change its procedures and learn to plan differently. So while the Titans continue to clash over procedures in the Sanitation Project, millions continue to squat on the road and railway tracks, as they always have done.

Huge amounts of money and energy are swallowed up, enthusiasm is extinguished - all without the creation of a single toilet!

Another tragedy of this process is that the people whom the sanitation project targets, who are in most desperate need of toilets, are being cut off from benefitting, because they occupy land whose owners will not give permissions to build toilets. The politics of location and permissions are the bad guy here, not community initiative. We can't limit toilets only to communities which the city designates as legal or authorised. There is a need to provide sanitation for all. The minute you start quibbling about who's eligible for basic services and who's not, you're back to where you started.

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NSDF suggested that, rather than have NGOs bidding against one another, it might work better to invite three NGOs working in slums and on sanitation to undertake a demonstration, so that both the communities and the city could actually see what was being proposed. So three organisations, including the Alliance, were given one site each and a budget to undertake the demonstration project. The Alliance's site was Chikhalwadi, which in Marathi means a space full of sludge.

A survey of the community was undertaken, a committee of residents was formed, design and construction were discussed with them, charges for maintenance were tentatively worked out, and construction began. The structure rose amid the slum homes. It had seats for men, women, and children, and included a room for the caretaker and a community space for activities like day care for children or night classes.

The Chikhalwadi construction faced many of the challenges faced by slum toilet construction in general. Space was tight, which made carrying material to the site very difficult. The slum was located on what had been a dump site, so the toilet block needed a pile foundation (a deep foundation, typically involving concrete columns); this raised the costs substantially. Water pipes had to be brought in from long distances and a septic tank was essential as there were no sewers nearby.

Nonetheless, the facility was completed and was opened with great fanfare by the commissioner. It became a space for daily visits by many communities, locally, nationally and internationally. Soon the community hall began to be hired out for events and even marriages since it was only decent space in the community. Visitors were always amazed that people wanted to get married above a toilet. Yet for most residents it was not just a toilet, but a building in their midst that housed many of their needs.

It was as a result of the Chikhalwadi demonstration that the idea of children's toilets was first accepted by MCGM and after that, space was routinely set aside for this. With a target ratio of 50 persons to a toilet seat, which the city would not change, there was always going to be heavy pressure on seats, so children tended to be pushed out. Creating separate seats for children allowed that ratio to come down.

When the World Bank and the municipality returned in late 1998 to inviting the Alliance to be involved in the larger programme, things were different. This time the design specifications and the procurements were reformulated according to suggestions from the Alliance and based on the Chikhalwadi precedent.

Delivering slum sanitation in Mumbai

Even though the Alliance was invited back under a new understanding, the World Bank and the municipality continued to go back and forth on how to proceed with contracts. Finally the procurement policy was finalised; the Alliance agreed to take part when our experience of working with slums was made a critical factor in the tender point system. The Alliance got the contract to construct toilet blocks along with two others (another NGO and a commercial contractor) because most of the other NGOs had decided they did not want to attempt this scale of work, and also lacked the financial resources to get the necessary bank guarantees. Clearly this was a huge setback for many conventional contractors, who strongly opposed the entry of the Alliance.

Having been awarded the contract, the project staff, who were quite unprepared themselves, demanded that everything be done as soon as possible. The municipality hurriedly put together a Slum Sanitation Program (SSP) unit within its administration. (Later we found out this was a "punishment posting" for middle-level engineers and administrators, who were transferred to this unit while some wrongdoing of theirs was pending inquiries.) The Alliance was also unprepared for this process and struggled on many fronts to manage the requirements heaped on it.

To start the project, the Alliance had to provide a bank guarantee for project completion and another to get project advances. This was clearly non-negotiable. But neither the Alliance nor the municipality, nor the banks for that matter, knew how to enact the bank guarantees. AXIS Bank, then called UTI Bank, and its amazing chairman and CEO, Dr. Naik, actually found ways to get the World Bank, the municipality, and his bank board to agree to devise the documentation that provided this guarantee. A "letter of comfort" from the UK organisation Homeless International (now Reall) was of vital importance in this guarantee drama. Homeless International, along with SPARC, was already exploring a guarantee for another housing project.

If it had not been so serious it could have been a script for a comedy TV show. Because each demand came out of the blue, it had to be processed and acted on. In most instances it had to be challenged, then negotiated for modifications and then acted on.

There were clear expectations that as many toilets as possible should be started. But there were preliminaries that were not taken into account in the contract provided, such as the need to come up with advances to contractors and additional finance for building the capacity of newly developed contractors and organising communities. Every contractor needed to open a bank account to get money; they needed the Alliance to introduce each one of them to the banks; and they needed a PAN card (the identification card for Indian income tax payers). All this had to be facilitated by a company newly established by the Alliance, called SPARC Samudaya Nirman Sahayak,[6] which was formed to support over 126 sets of contractors. Several of these were women leaders from Mahila Milan who in the past had learned construction and trained many others.

6 SPARC Samudaya Nirman Sahayak is a not for profit community construction company set up by SPARC ,NSDF and Mahila Milan www.sparcnirman.org

In the earlier sanitation work in Pune, the commissioner had personally held weekly meetings and listened to his officials and NSDF/Mahila Milan. In Mumbai, by contrast, the process faced many challenges when senior officials who were committed to the project were transferred. Of great value, however, was the fact that the process in Mumbai was ongoing and toilets in slums continued to be constructed. Each subsequent tender built on the experience of previous ones, the children's toilets continued to be improved, costs were better estimated, and gradually the funding for community capacity building was also included. While the Alliance developed and tested the concept, other commercial contractors and NGOs were also involved in construction. In all, the Alliance, as of March 2015, has been involved in the construction of 366 toilet blocks in Mumbai, with 6,952 seats, out of the total of 72,000 seats constructed in the city since 1999. Some of these are still being completed.

The challenge that remains is the coverage of all locations. What has to date been constructed in Mumbai meets approximately half of the actual need. The process is 'city-wide' in the sense that it is institutionalised within the city's systems, but not yet in the sense that everyone is reached. In many Mumbai slums there is no space for community toilets. If toilets were to be built in those areas, some huts would have to be removed to create space. The challenge in these situations is developing a policy to relocate households that agree to move into tenements located nearby in the ward. The Alliance is involved in developing formats for these negotiations and exploring possibilities, but to date this process has not begun. Bringing all the pieces of the process together and executing this strategy will be a crucial precedent in the last phase of creating city-wide slum sanitation provision.

Table 2: Toilets tendered and constructed in Lots 6-9, 1999-2011

Lot	Date of contract	Number of toilet blocks originally tendered by MCGM	Number of toilet seats originally tendered by MCGM	Number of toilet blocks actually allotted for construction to SPARC	Number of toilet seats actually allotted for construction to SPARC
Lots 6 & 7	November 1999	320	4,047	208	4,160
Lot 8	December 2006	150	3,000	68	992
Lot 9	December 2011	90	1800	90	1800

Note: When a municipality undertakes work over a period of time, it develops tenders for a certain number of toilet blocks or any construction activity, with each group known as a lot. Construction under Lots 6, 7 and 8 has been completed, while work on Lot 9 is ongoing as of 2015.

Steps that every toilet project went through

1. Locating areas that were suitable for exploring.
2. Discussing with these communities whether they wanted a toilet, had space to construct one, or had an old dilapidated toilet they wanted to reconstruct.
3. Checking with the SSP (the unit in the municipality) whether the location was acceptable to it.
4. Surveying the slum and estimating how many seats were needed; and checking how many people were willing to participate in the scheme, which would involve paying in Rs 100 per adult and forming their own startup capital for maintaining the toilet.
5. Clearing the location and drawing up the plan for a general layout as the basis for the work order.
6. Submitting the detailed architectural and structural drawings, leading to the work order being confirmed, and drawing up estimates.
7. Appointing a contractor for the project. When this was a Mahila Milan or NSDF member, they got 10% of the budgeted cost to start the project; others who were contractors had to put in their own 15% before they began.
8. Preparing bills after joint assessments of the construction were undertaken.
9. Forming a community based-organisation (CBO) with the people in each community who wanted to participate in the scheme and registering this society; then creating a committee to look after the general maintenance of the toilet block.
10. Providing a family pass to all households; arranging for them to make monthly payments of between Rs 30 and 60 for use of the facility.
11. The committee appointing caretakers and arranging their payment from the maintenance budget.
12. Inaugurating completed toilets by a local elected representative of the community's choice.
13. Paying contract funds to the contractor, after retaining 5% of the funds in case of defects.

A counter in a toilet block to check family passes

Interior of a community toilet block

Reflections on the World Bank's role

In this project, the World Bank interventions had both positive and negative implications, with questions and challenges coming from many quarters. For instance, the Bank's demands for a contribution from families for maintenance and for registration of CBOs were opposed very strongly by political parties. This was an element that the federations actually welcomed, since it fit the model they had already developed.

There were other concerns about the practicality of the World Bank's demands. During its review visits, huge pressure was applied to work faster, to produce more "professional" outputs and demonstrate managerial capacity in a more formal sense. But the Bank staff never actually reviewed the reality of the city's inability to supervise construction, or to undertake joint assessments in a timely way. This meant that cash flows and the financial aspects were in such a terrible state, that, had we not had the support of CLIFF to refinance the project, it would never have been completed.[7]

Another problem was that elected representatives treated the project as something that interfered with their jurisdictions. Having communities make an initial contribution of Rs 100 per household, forming a formal CBO, and registering it were all vehemently opposed by these politicians. They demanded that the city take all the responsibility, and were very hostile to the Alliance, which insisted that management be the responsibility of the organised communities.

While these discussions went on, the paradox was that everyone wanted toilets to be built quickly, without acknowledging that the city simply did not have the capacity to undertake reviews of site plans, assess land ownership, deal with a tug of war with local political representatives that often divided the communities, and tackle the challenge of actually locating open space to construct toilets in very dense slums. All delays were treated as the fault of the contractor rather than the inability of the institutional arrangements to scale up production at the speed of the money transfers between the World Bank and the city. The huge negative impact of this was never dealt with or even recognised by the Bank, so that where the city and the government were concerned, the major concern remained that of timely transfer of funds.

At the same time, on a more positive note, it is very clear that when the city or state government seeks World Bank loans to finance a project, there is the potential for innovation if a reasonable strategy is advocated. In this instance, had the World Bank not been involved, the initial sewerage treatment plan would never have included providing sanitation for slums. And during the project itself, although the World Bank tried hard to get the Alliance to agree to its terms, when other options were not working, it changed procurement and tendering contracts to make it easier for the Alliance and other NGOs to undertake the work.

7 CLIFF is the finance facility set up by SDI and Homeless International to provide bridge loans to the federations.

Box 4: Trial and error

Despite the large scale of this Mumbai project, and the time pressures that were being imposed, the Alliance decided to take it on anyway. The risks, as far as we understood them, were acknowledged. In fact, most of us who are professionals in the Alliance, the SPARC members, would have preferred not to get involved in these huge projects. We lost some very committed trustees, staff, and advisors, who felt that the risks to our shared reputations were unacceptable.

In these initial stages, the rush to start work and the scale of the work meant that something went wrong. There were design challenges, construction challenges, and management challenges. The city faced its own supervision challenges. This was inevitable – neither the Alliance nor the city had the experience or capacity needed at first. The resulting problems exposed us to a lot of criticism. But the Alliance stayed the course, took responsibility for the problems, repaired what went wrong, and chalked it up to experience. This was the case in all the construction projects linked to sanitation, as will be seen in other cities as well.

There is no question that in each and every instance, it was the champions in each city we worked in who gave us the support and confidence to undertake this work and finally see projects through to the end.

A meeting with slum dwellers to explain the sanitation programme.

A toilet block in Mumbai with a caretaker room at the top

Slum sanitation was now a visible presence in Pune and Mumbai, two large cities that are very prominent in India's urban landscape. Both cities had a wide range of visitors: community members, mayors, government officials from the city and other states in the country, federations from Asia and Africa, and representatives from the UN and the World Bank. The more the visitors came, the prouder the cities felt about their achievements. Both projects gave considerable prominence to the work of NSDF and Mahila Milan.

Table 3: Similarities and differences in sanitation projects between Mumbai and Pune

Mumbai	Pune
Mumbai was clearly an opportunity to explore scale that was initially inconceivable. But the very defined and demanding nature of World Bank specifications led to the Alliance walking away initially.	Pune invited the Alliance to design and develop the delivery of sanitation at municipality cost, accepting all the elements that the Alliance presented as necessary for community sanitation.
The offers came due to long-standing relationships with persons in charge of the programme. The offer was not made as a favour, but reflects the strategy of the Alliance to stay in touch with all likely champions within the state machinery who know and understand what the federations can do. In both cities it was the leadership in the administration requesting the Alliance to help take on more than an advocacy role and going out of its way to engage the federation to take on projects.	
In Mumbai a long negotiation forced the city and government administrations to make many changes in procurement. However, the systems in place did not move with these changes and the mismatch caused huge challenges.	In Pune, the design and delivery system was developed with the administration and the process developed by the Alliance was accepted by the city. The city officials, urged by their leadership, worked closely with the federations and Mahila Milan.
In both Mumbai and Pune, the major champions pushed for the project to be rushed for completion. In Mumbai, the World Bank wanted to seek completion on a predetermined schedule. In Pune, the rush occurred because the administrator knew that his successors might not sustain the level of scale and partnership. In both cities, this created distortions in processes. Because wrong choices were made, the Alliance paid highly in both financial and reputational terms.	
The lack of capacity, in Mumbai more than in Pune, of the administration, as well as the lack of interest and commitment of lower-level staff to measure, supervise and facilitate timely payments, led to huge financial challenges. Subsequent delays in accurate measurements also meant loss of revenue for the Alliance.	
Both cities had financial and technical resources to continue this project, and Mumbai did continue while Pune did not.	
Mumbai started to explore institutionalising monitoring toilets as part of maintenance.	Pune did not reflect on the challenges of maintenance.
Obtaining water for sanitation was a challenge in Mumbai.	Pune had already provided slums with water, so obtaining water for sanitation was not a challenge.
In Mumbai, the system set for community maintenance by the Alliance continues albeit with many problems and glitches.	In Pune, the association of sanitation cleaners employed by the municipality actively opposed community maintenance and created alternative options to "take over" toilets from locally managed committees.

5. Imagining universal sanitation in urban India

By 2000, with community toilets constructed at a large scale in both Mumbai and Pune in partnership with their municipalities, a process for exploring the provision of slum sanitation at scale had been demonstrated. Although most slum dwellers in Mumbai remained unserved, even here a city-wide solution existed, in the sense that the potential for a process was in place. A choice now had to be made on what to do next. One option was to go city by city and explore more city-based projects. The other was to push for policies and financial allocations and to work on creating the political will for yet wider impact. The federations decided to do both, and in fact the two options fed one another: the advocacy aspect led to the opportunity for more city explorations, which in turn continued to strengthen the wider processes.

Working towards a wider impact

While we were thinking about the next steps, the successes in Pune and Mumbai led to an opportunity to make a presentation to the prime minister's office in 2000 on the potential for universal sanitation. This was well received, and led to the announcement of Nirmal Bharat Abhiyan (the Campaign for a Clean India), to increased allocations for sanitation, and to a recommendation to the Ministry of Urban Development that it put sanitation on its agenda. This in turn led to an interest in national government on how to scale up the experiences in Mumbai and Pune.

In the meantime, Ratnakar Gaikwad, the enormously supportive commissioner from Pune, and an advocate for universal sanitation, had become director of YASHADA, a Pune-based national training institute for government officials. Discussions between Gaikwad

and the Alliance led to a seminar that included NGOs, government agencies, training institutions and other institutions that wanted to work on urban sanitation and to create a collective boost to their various efforts to address open defecation. A memorandum of understanding was developed among the Alliance, YASHADA and two other institutions: the Administrative Staff College of India (ASCI)[8] and the World Bank's Water and Sanitation Program (WSP). ASCI, in Hyderabad, is a training institute like YASHADA; both train administrators, mayors and government officials from across India, assisting governments at all levels on urban challenges. Through the involvement of WSP, the World Bank acknowledged the Alliance's work

8 This was set up by the government of India for management training of people working in various fields. www.asci.org.in

on community sanitation as a critical urban breakthrough and wanted to champion it. The unique partnership with these three organisations meant that the potential for advocacy expanded exponentially.

The Alliance leadership subsequently participated in many of the ASCI and YASHADA training programmes, all of which now included a module on slum sanitation led by Alliance members. There were thousands of these training programmes, and many mayors and commissioners began to explore the possibility of slum sanitation more seriously. Some of them asked the Alliance to construct toilets in their cities, and some of these cases are described below.

In these cities, where the level of support and supervision from the city engineers was good, it helped assure quality and timely completion. However, when the commissioner changed, the next commissioner tended not to get involved in the process, then the staff stopped being involved and payments were delayed. Although these contracts were not as large as those in Mumbai or Pune, or the subsequent project in the wider Mumbai Metropolitan Region, they were the continuation of the exploration of the city-wide sanitation process.

The other major outcome of these high-level partnerships was that the Ministry of Urban Development set up a task force that included the Alliance, YASHADA, ASCI and others, with WSP serving as secretariat. Its recommendations led to the formation of the National Urban Sanitation Policy, with financial allocations for constructing toilets in slums. In India, urban policy is a state government responsibility. Central government ministries can design policies, but state governments have to adopt them. So in this case, the Ministry of Urban Development hosted many workshops all over the country to get state governments to buy into the national sanitation policy.

A toilet block constructed in 2003 by SPARC under the Slum Sanitation Program of the Mumbai Sewerage Disposal Project funded by the World Bank

Drawing from some of the practices developed by the Alliance, a survey of 400 towns and cities was undertaken, on the basis of which sanitation plans were prepared for these cities. Where NGOs and local groups were already active on the ground working on issues of sanitation, these plans were taken forward. Unfortunately, in most cases the plans did not go on to produce a city-wide sanitation programme. This again is an indication that design and planning in the absence of institutional champions and those who are most immediately involved, at least in the initial stages, means that delivery is never assured. India and its cities are still a long way from developing standardised municipal procedures to produce city-wide sanitation access across India.

Box 5: The trajectory of the universal sanitation policy in India, 2000–09

1990–95: City-wide projects and exchanges begin to produce a buzz: the activities in Pune and Mumbai have many visitors and a number of them begin to explore policy frameworks.

2000: Nirmal Bharat Abhiyan (Campaign for a Clean India): The Pune municipal commissioner and the Alliance are invited to present to the prime minister's office. Nirmal Bharat Abhiyan is announced, and the Planning Commission dedicates funds to cities that want to take up these sanitation projects.

2000–08: Links to YASHADA, ACSI and WSP: A partnership of the Indian Alliance, YASHADA (training institute of the government of Maharashtra), ASCI (Administrative Staff Collage, Hyderabad, Andhra Pradesh), and the World Bank WSP leads to the inclusion of slum sanitation in the training of many city officials.

2007: Initiating the policy dialogue in state workshops to get buy-in: The Ministry of Urban Development takes on the task of channelling the policy for universal sanitation through its ministry.

2009: The cabinet passes the national policy for urban sanitation: After national and state-level consultations, development of city-based indicators and state government agreements, the national policy is adopted by the cabinet.

2010–14: 400 cities undertake sanitation assessments in slums: Some of these result in city-wide programmes; but in the absence of institutional champions and involved local groups on the ground, most do not take off.

Meeting between CBOs and ward officials in Mumbai, 2014

A toilet constructed in Pune by SPARC, 2003

Workshop on urban sanitation policy, Hyderabad, 2007

Taking municipally-supported city-wide sanitation to more Indian cities

The work undertaken by the partnership of the Alliance, YASHADA and ASCI opened the possibility of working in some new cities. But it went both ways: these city processes were fed back as examples in the training and capacity-building sessions that were being held in the two training institutes. In all of these cities, as in every other experience, the Alliance had to struggle for several years to be fully paid for its work.

Women at a community toilet in Mumbai

Tirupur, 2004

The city of Tirupur in the state of Tamil Nadu is the knitted cotton textile capital of India. It is also the first city that contracted a private sector company to undertake its infrastructure projects. Around 2004, a representative from SPARC was invited to a USAID event in the Philippines, where a representative of this private sector company heard of the sanitation work of NSDF and Mahila Milan and invited them to work with the city of Tirupur.

Initially, the project was ambitious and planned to cover 80 informal settlements. In the end, only 14 toilet blocks with 254 seats for 12,700 users were constructed. Unfortunately, many slums were on private land and owners would not allow toilets to be constructed. The federations had no membership in Tirupur, but there were many federations near that town in Tamil Nadu, from which contractors and supervisors came to assist in the project.

Vishakhapatnam, 2004-05

Vishakhapatnam is a port city of Andhra Pradesh where the Alliance has worked for many years. The federation was invited in 2004 by the city to build 19 toilet blocks with 323 seats for a population of 16,150 people, as well as for the floating population that assembles in the city each year for a special festival.

The city commissioner and engineers supervised the construction well. However, when a new commissioner took office, the payments for dues lapsed, and it took almost a decade for the money owed for the construction to be paid.

Events around one of the toilet blocks here illustrate the kinds of challenges that NSDF and Mahila Milan often face while dealing with municipalities. After this toilet block was constructed and after people began to use it, the landowner went to court to say the toilet should not have been built, as it was on his land. Payment for construction had not yet been made, and the city argued that, since it might have to demolish the toilet if the landowner won the case, the city should not have to pay for it. After a long negotiation and an informal acceptance that it was the city's fault for not checking the land ownership, the money for construction was paid, but only after a bank guarantee for one year was provided by SPARC. The guarantee period is over and we have the money, but the case is still in the courts while people are using the toilet.

Vijaywada, 2004-05

Vijaywada is a medium-sized town in Andhra Pradesh. The sanitation project here started in 2004, when, at a national sanitation meeting, the commissioner of Vijaywada heard about the Mumbai sanitation project and invited NSDF to work in the city. Seventeen toilet blocks with 128 seats were constructed for a population of 6,400.

Pimpri Chinchwad, 2006

Pimpri Chinchwad is a municipality in Maharashtra next to Pune with a high per capita income due to the presence of local industries. In 2006 it contracted Pune's Mahila Milan to construct seven toilet blocks with 90 seats to initiate its sanitation project. Women from Pune Mahila Milan assisted the municipality in the construction, and after the initial contract, the municipality chose to complete the rest of the construction through its regular contractors. Mahila Milan members from Pune and Pimpri Chinchwad had not been able to cope with the additional demands and pace, since they were also working at full capacity in Pune at the time. This project reflects the importance of just doing demonstration pilots in some towns, where others can then pick them up and expand them, while in other cities where the federations have the capacity to operate at scale, they can handle the expansion phase.

The cards represent payments made for use of toilets

Work in the wider Mumbai metropolitan area, 2007–11

The Mumbai Metropolitan Region (MMR) consists of Mumbai and 13 other municipalities. Each is a municipal corporation or a council depending on its size, and they all come under the Mumbai Metropolitan Regional Development Authority (MMRDA). The region also has many rural areas and the MMRDA invests in projects such as transport and infrastructure that serve more than one municipality or location in the region.

In 2007, the Nirmal MMR Abhiyan (Campaign for a Clean MMR) project designed a strategy to finance community toilets in slums in each municipality. This initiative was spearheaded by the then commissioner of the metropolitan region, the very same man who had earlier championed the process in Pune (see Box 3). This was a very unusual commitment – it was not routine for a metropolitan region to cover this kind of infrastructure for its member municipalities. It demonstrated an additional and unique dimension of responsibility for this level of government.

As Mumbai grew and densified, with new people moving in every year, space became increasingly tight, prices rose, and the population of this confined island city began an inexorable move northwards. The formal city expanded into the suburbs and municipalities beyond, and along with it went the inevitable slum population with its informal enterprises, replicating the lack of amenities and services experienced by poor urban populations across the country.

The commissioner invited the Alliance to design the Nirmal MMR Abhiyan intervention, which accordingly shared many of the characteristics of the earlier slum sanitation projects the Alliance had undertaken.

First NSDF and Mahila Milan undertook a survey, initially of nine of the 13 cities and towns, to establish the number of seats and toilet blocks needed for complete coverage. The deficit was enormous, as the table indicates. More than 64,000 toilet seats were needed to achieve full coverage for the slum population in these nine municipalities.

Table 4: Toilets and toilet deficit in 9 of 13 Mumbai municipalities

Serial number	Municipality	Settlements	Total number of huts	Total population	Total existing toilet blocks	Total existing toilet seats	Required number of toilet seats
1	Bhayandar	14	21,113	105,150	44	357	1,746
2	Bhiwandi	57	213,510	1,068,700	206	2,821	18,553
3	Nalasopara	22	21,177	109,395	64	296	1,892
4	Kalyan-Old	20	36,984	199,120	99	1,555	2,427
5	Thane	59	198,130	974,230	287	3,166	16,319
6	Kalyan/ Dombivli (KDMC)	40	76,180	389,200	167	1,086	6,698
7	Ulhas Nagar	72	154,168	777,450	344	2,657	12,892
8	Badlapur (KBNP)	12	6,404	33,035	51	240	421
9	Ambarnath (AMC)	19	40,460	201,800	43	427	3,609
	TOTAL	315	768,126	3,858,080	1,305	12,605	64,557

Notes: AMC: Assistant Municipal Commissioner; KBNP: Kulgaon Badlapur Municipal Corporation
KDMC: Kalyan Dombivili Municipal Corporation

The Alliance then helped design a fixed-price tender to call for the involvement of NGOs experienced in building community toilets, with the engagement of communities in their maintenance. Each municipality would provide the work orders for the construction within its boundaries and make the payments, which would then be refinanced by MMRDA.

Unlike the other earlier projects, where the strategy was developed with the municipality, this project, devised together with the metropolitan level, was handed to the municipalities to take up. The municipal-level commissioners welcomed the refinancing elements and saw the project as a valuable provision for slums. However, the staff of these municipalities were not prepared to take on the wide spectrum of duties and procedures that were involved. Many challenges surfaced:

- Constructing toilets against a very tight schedule was a challenge. The metropolitan commissioner knew that unless the top leadership championed the process upfront, it would not manage the enormous administrative load presented by the project.
- In most instances the slums were very dense and the only space available was on sites where a toilet with very few seats had been built by a local politician or the Maharashtra Housing and Area Development Authority. For the most part these toilets were not functional. The project had to plan blocks with 20–30 seats in a new two-story building to ensure adequate seats for the settlement.

- There were no federated or organised communities in those municipalities. Most of the local politicians, who had built the earlier toilets, were against this scheme, being especially opposed to the plan that people would have to pay for maintenance. This created a conflict for communities, which had to agree to form a committee to manage the proposed new toilets.

- The design of the toilets and hiring of contractors presented many new challenges as well. Contractors needed to be local, and many of the contractors who had earlier been involved in the Mumbai and Pune projects were invited to undertake the work. Many of them found these new locations very difficult to manage as there was no time to establish the necessary systems and purchases, or to hire sufficient local masons and workers. In some instances the quality of the work suffered. In the case of about 20 of the toilet blocks, the quality of construction was so bad that toilet blocks had to be structurally retrofitted and reinforced at the Alliance's expense in order to get certification from a specialist structural engineering firm. In many other situations the contractors just abandoned the work.

- Much of the work that was ordered ended up being cancelled before the process was well underway. In the end, the burden of completion fell on the old and trusted Mahila Milan and NSDF leaders who had become contractors. There were a number of reasons for these cancellations. Land ownership in most of the slums was unclear in city records. When the work orders were given, many private landowners, or even public landowners, challenged the right of the municipality to proceed, and many cases went to court. If clearances were not obtained, the project would have to be cancelled. In other locations, the state government authority responsible for environmental clearances intervened and stopped construction because the toilet was too near a water body or forest area. It was ironic and paradoxical that environmental regulations meant the acceptance of open defecation but not of toilet construction, but those were the rules, and here too construction had to be abandoned. But by the time many of these projects were cancelled, the construction was already underway. Local politicians and residents were angry, and the target of their anger was the person in front of them – the contractor. This cancellation meant a lot of extra paperwork for both the organisation and the municipality.

- The financing of this project was more complicated than the earlier direct interaction with Mumbai or Pune. In this instance, the resources were from MMRDA, but were routed through the individual municipalities. In almost every municipality, there was hostility to the idea of the federations undertaking this project, as there were no benefits to the municipal departments.

- The billing and finance aspects of the project were a nightmare. Municipal procedures require that the billing be preceded by a joint assessment of the completed work. This was never done in a routine way and even bills that were issued were not paid on time. This created cash flow problems, which slowed down the work considerably.

- The money owed for completed construction was not paid for years, and the Alliance had to set up a separate team to dig out and compile documentation from each of the municipalities to produce evidence that the payments had not been made. This documentation also showed that arbitrary changes had been made to some of the contracts after they were signed, in order to get out of payment obligations. On many occasions, MMRDA senior staff had to help negotiate with the municipality. Now, several years later, these dues have finally begun to come in.
- In some cases, the recalcitrance of the municipalities amounted to outright scams. During negotiations with the very large Thane municipality for payment in 2012–14, for instance, the municipality insisted that the toilets constructed were in bad shape and needed rebuilding. Municipal officials were on the point of issuing a call for tenders to redo the construction. NSDF challenged this, and suggested it carry out a joint survey with MMRDA. The survey demonstrated conclusively that all the toilets were actually functioning well. There were some challenges with maintenance – almost all blocks needed a fresh coat of paint, and some minor repairs were required. But these were the kinds of maintenance issues that would be expected in any toilet block that had been used for a few years by large numbers of people.

The project began in 2007 and went on for over four years. In all, 312 toilets were built in these cities and towns, while a total of 373 were in the pipeline but could not be completed for the kinds of reasons outlined above. Altogether the project managed to build 8,473 seats, serving 423,650 users. This amounted to 13% of the requisite number of seats, serving 11% of the population that needed to be reached. Had the additional 373 blocks been completed, another 17% of the need would have been met.

Table 5: Assessment of requirements for toilets in slums in Mumbai

	Population	Seats
Total needed	3,858,080	64,557
Total provided provided	423,650	8,473
Percentage requirements met	11%	13%

Despite the accomplishment of providing over 400,000 people with sanitation, this was a small percentage of what was needed. Most of those in need of sanitation remain unserved. But scale and scalability are relative terms. In the context of a community process or an NGO process, what is being aspired to in terms of scale is the assurance that it will be possible to undertake the innovation at a larger and larger scale, across localities and cities, and with different sets of actors exploring and taking on the work.

Box 6: Examination of a city-wide sanitation process: some issues to consider

- No single organisation should assume that it can construct all the toilets needed in a city. Instead, it is important to explore the conditions that are necessary to create a practical strategy.
- A city-wide slum profiling process undertaken by community groups can help form a network of communities that collect data. The process can also create champions who want sanitation.
- Enough time has to be given to explore possible design, strategy, technology costs and construction approaches. Without building choices and consensus, a city-wide strategy will exist in name only.
- The senior leaders in the city and government have to be involved, as new policies generally need a signal from them.
- Often champions in government are transferred. It is important to stay in touch with them and make sure they continue to champion the process wherever they go.
- Many mistakes occur while initiating the process – quality management, finances – and many things can go wrong. Everyone expects perfection, but this should never be assumed. The process will improve by monitoring what is being done and learning from mistakes.
- Celebrating every milestone is important. It keeps morale high and makes it easier to deal with situations when things go wrong.
- The process – from considering sanitation for slums to making it a city strategy everywhere – will continue to take time until the scaling and advocacy make it an ongoing national process and cities routinely provide basic services to informal settlements. However, practical experience shows that the precedent can work in large, medium, and small urban centres.

Very often when people refer to the work of NSDF and Mahila Milan and observe how organised communities can produce state-linked partnerships, it is assumed that the services are only for the members of the organisations. In reality, organised federated communities design strategies, get the city to accept them, and ensure that they are available to all, even those who do not want to be part of their federations.

6. Monitoring and capacity building for slum sanitation with the Mumbai municipality

Exploring new solutions and designing and constructing toilets has been an ongoing process in the Alliance since the 1990s, with more cities over time financing the capital costs of construction. In Mumbai we have now for the first time entered a new phase – the ongoing review and assessment of the toilet blocks that have been built. Meanwhile construction activities continue to go on alongside this most recent phase.

This process of reviewing what has been done, and what can be learned from it, which has happened so far only in Mumbai, could have been undertaken through a grant from a donor, but that would have limited its institutionalisation within the municipality as a learning instrument to support and strengthen the process, as discussed below.

It has generally not been within the purview of most municipalities to undertake formal, institutionalised monitoring of these "assets" that they have created. It takes real institutional commitment and a regular monitoring system to determine what aspect of the toilet blocks' functioning needs maintenance. There has always been a presumption that the Alliance would "do the needful". And in fact, NSDF and Mahila Milan have always maintained informal oversight on what happens in these facilities. Their ongoing organisational review and monitoring of what happens once toilets are constructed and communities are managing them has produced a range of refinements and changes in design and the management of construction. For instance, the separate facility for children was an innovation that had to be demonstrated and constructed before the city could accept it in the design. These separate facilities, built to meet a very specific set of needs, were used less and less over time, as caretakers did not like having to clean them constantly. Then, through discussions with the city, communities and technical professionals, smaller toilets for girls and boys were built within the main blocks.

Yet no matter how many good outcomes there were, the toilets were also the location of a range of contestations that needed resolving. Since the scale of the projects has expanded, however, the Alliance has been overstretched in sustaining this monitoring. Besides, the feedback it provides to the municipality about what needs to be done has never been taken seriously – the city's officials tend to feel that they have already done their share by paying for the toilets to be built.

Not until 2012 did an enlightened senior administrator in Mumbai, Rajeev Jalota, the Additional Municipal Commissioner for Projects, see the need to create a database of existing sanitation facilities. It was clear to him that, apart from funding and supervising the construction of the slum toilet blocks, the city needed a system to monitor toilets once built, and to liaise with the community cooperatives. This official argued that the monitoring effort needed to be financed by the municipality. The Alliance and other NGOs were invited to bid for the contract to study about 500 existing toilet blocks and to work with the city's Slum Sanitation Program (SSP) to systematise this new element of their work. The contract was for two years, and the toilet blocks to be surveyed were in 19 of the

26 wards of the city; 10 of these wards were contracted to SPARC and 9 to another organisation: Pratha. The plan was for SSP to work with SPARC and Pratha to assist the effort, monitor all constructed toilets, and develop a protocol on how to build and strengthen both city and community capacity to manage these assets. Together these organisations composed the Project Management Unit. The process, just recently begun, is still being crafted through discussions, reviews and explorations jointly by the city, the federations and SPARC. But some systematic data collection, along with greater clarity around roles, responsibilities and data management, has already indicated the value of this process.

The number of toilet blocks that were to be surveyed varied considerably by ward. In the central part of the city, there might be two or three in a ward, but in other areas, like the R wards in the suburbs, there could be as many as 28 or 30. In addition, toilets were being constructed not only through partnerships with the municipality, but also by state agencies and politicians. There was no aggregated registry of all the toilet blocks in the city, and as a result a separate study was commissioned to undertake a ward-by-ward identification of all community toilet blocks with GPS. During the first phase of the monitoring project early in 2013, however, the SPARC team looked at 104 toilet blocks.

Shreeram Seva Society, Azad Compound, Kandivili (W), Mumbai

An NSDF leader made a cynical observation: *"Politicians find it easy to promise people toilets to get votes in slums. Since there are no clear specifications or accountability requirements, a politician can construct a toilet block and when it collapses or becomes unusable, whether because the septic tank has overflowed or there is no water or electricity, it gets demolished and a new one is built."*

The contract

The contract required all the settlements to be visited for a review of concerns linked to communities' level of organisation, their knowledge of the programme, the status of the toilets, and their management. This was not only for completed toilet blocks. For any toilets still in the process of construction, the provisions of the contract would start to be applied at that stage. Among other things, it addressed the following specific issues:

- **Creating awareness about the SSP programme.** Interested slum communities were to apply to the Charity Commissioner or Registrar of Co-operative Societies for registration of their CBO, where this was not currently in place.
- **Disseminating information on various policies around urban sanitation** to the slum dwellers, CBOs and NGOs engaged in actual implementation of the programme.
- **Confirming various facts in case of disputes arising between two or more CBOs** of proposed toilet users, and identifying bona fide users of the community toilet block with the help of the NGO and Community Development Council.
- **Monitoring the contractor** to ensure completion of all the necessary activities before handing over the toilet to the CBO.
- **Ensuring that the following are done by CBOs:** opening a joint bank account, making water and electricity connections in the name of the CBOs, and getting signatures of CBO representatives on the proposed plan for the toilet block and on the final plan.
- **Collecting information of CBOs:**
    - The present legitimate office bearers of CBOs, their accounts, audit reports, and user charges fixed by the CBOs and monthly passes or fees charged for use.
    - Details of the caretaker and use of various services provided within the toilet block and in the vicinity of the toilet block by the CBO.
    - Information on legal disputes and community conflicts between one or more CBOs.
    - Feedback on user satisfaction, with a complaint redressal mechanism that includes disqualifying the CBOs in case of misuse of the public utility.
    - Other necessary information based on the needs and requirements of specific facilities.
- **Coordinating with various authorities/ departments,** including concerned ward offices, involved utility companies, central and state governments and railways, to obtain a No Objection Certificate related to construction of community toilet blocks.

- **Monitoring the operation and maintenance of the toilet block;** reporting if the toilet block has been sub-let by the concerned CBO to some other agency.
- **Creating a computerised database** of SSP activities and on the overall sanitation status of Mumbai.

Over time, many more activities have been added to this list and others are still being explored. In a sense, the important issue to flag here is that this is not only a contract but also an exploration to design the process together, as it is new to both the municipality and the Alliance. Having signed a formal contract does not stop either party from exploring additional issues or eliminating what does not work.

The monitoring project was to take place in two stages

1. Developing a questionnaire to document what was actually happening in each community toilet block, its physical status, its structural integrity, and its management.

2. Exploring the issues and challenges that require the city and communities to interact so as to address the challenges that emerge.

The Alliance also had in mind a very important third stage – looking beyond sanitation maintenance to see how the engagement between the city and community could be applied to other issues such as solid waste, education, health and locality management. Although this objective is not stated in the contract and has yet to be formally accepted by the municipality, the municipal leadership expects that the process would involve various other municipal departments, and that sanitation is just the start of working with slums.

Government officials tend often to be quite officious when they award contracts to NGOs; they want to make sure they behave like subcontractors, and they push to have everything done quickly. However, in a departure from the frenzy with which it undertook the earlier construction contracts in Mumbai, the Alliance chose to undertake this monitoring project at a pace that ensured high-quality results that could be confidently acted on. As the Alliance sought to establish the value of its strategy both with the municipality and with Pratha, it found that if it demonstrated value and logic, and helped train others to explore what it had developed, there would be buy-in.

Initially SSP officials expected that staff "hired" for the programme would be based in its office. By and large, when that actually occurs in any government office, the contracted staff become appendages of the unit and end up doing its clerical work. Instead, the Alliance decided to work from the SPARC office and hold weekly meetings with Pratha and the SSP. These meetings have helped develop a positive alliance among all parties so that when they meet the additional commissioner together, they go with clear documentation of what has been done collectively, a strategy, and plans that require agreement on policy issues; they also raise issues that require the additional commissioner's input. These discussions are very stimulating and have a real impact for SSP staff, who see the signals given by their senior official through the value he places on this process. Increasingly, these partners have begun to link to other projects that the city has commissioned.

At the heart of the monitoring process was the creation and testing of a survey format that would form the basis of monitoring. The initial questionnaire was designed by the SPARC team in discussion with the federation. Rather than seek consensus immediately with its monitoring partners, the Alliance wanted to test a survey based on its own extensive experience. Many of the questions, in fact, were part of the slum profile survey routinely used by the Alliance and more broadly by SDI. In this instance, other details specifically related to sanitation were added. All parameters that related to and affected

the quality of maintenance were considered. The Alliance tested this survey, made changes, tested it again, tabulated the results, and shared them with the municipality and the NGO staff from Pratha (the other half of the Project Management Unit) in brainstorming sessions. Once the additional commissioner and other officials saw its value, it became the standard format. Although the contract did not specify it, SPARC decided to digitally map the toilet blocks and also to digitise the data. Subsequently, it helped Pratha to also learn to do this.

Teams from the Project Management Unit visited each community block, administered the survey, saw the issues, identified the problems, and made commitments to return with solutions or at least strategies for exploring possibilities for solutions. All toilet blocks were located on a Google Earth image and sanitation data was made available on a drop-down note for each, which included the details of local committee members. The database that emerged created the architecture for the interventions. Converting the data into simple Excel tables allowed for easy creation of lists by ward and by problem, so they could be prioritised. Next, the team devised indicators for various issues, and ward- and issue- specific lists were produced very quickly. The real 'aha moment' was simply realising they could make these lists. It was a very powerful experience to be able to link these with the wide range of departments in the municipality that needed to be engaged to address the issues raised.

The information about each toilet was also summarised on one page, and both a digital and a hard copy were given to the SSP as well as to each ward office. Though all ward and municipal officials have computers, they all use hard copies of the report.

The survey was intended to be an instrument that could and would be administered by the community leadership for review among communities. But when the collected data was available, it was also important to contrast and compare the factors not just between toilet blocks, but also between wards and across the city as a whole. By undertaking this process with the municipality, the survey data becomes legitimised as information that the city and community use jointly to manage slum sanitation. When results of each segment of the survey were discussed, the issues raised led either to more inquiry or to action that explored ways to address the challenges. Observations made during the survey also raised issues that were then reflected in additional indicators. The most significant outcome has been that the data has produced discussion and reflection on the relationship between slums and the city, and about expanding this interaction.

Initially it was assumed that most of the problems lay in the internal relationships and modes of functioning of the committees, and that the NGOs involved in each case would solve the problems they were facing. It became clear, however, that this was a problematic assumption. There were, in fact, many issues that individual organisations could not handle. For instance, when septic tanks overflow or burst, communities cannot afford to remedy the situation on their own.

Dealing with many issues involved clear roles and responsibilities for the municipality, the contractors, and the NGOs. These aspects were gradually discussed, and finally there emerged a list of activities and obligations that the municipality had to agree to, which were to be monitored as well. It was also important to acknowledge the capacity of municipal politics to complicate situations. There were two politicians, for example, who constantly pitted one set of community leaders against the other in order to promote their own agendas, making the CBOs dysfunctional. This list of the responsibilities of the city in monitoring and maintenance keeps gradually growing.

The municipality and the local ward officials were invited to explore their own duties and obligations although these were not original parts of the contract. The rationale was clearly based on the fact that the asset of the community sanitation block belonged to the municipality, which had obligations to:

- Provide water to the toilets
- Provide documentation for the toilet to get electricity
- Take action if the septic tank was overflowing by
- ensuring the tank was cleaned
- Address issues of structural damage that may have occurred to the toilet block

The roles and responsibilities of the NGOs associated with the Project Management Unit were to:

- Gather information about of the status of the toilet block through visits
- Assess the functioning of the committee managing the toilet block, its registration, its functioning, and its supervision of the toilet's functioning
- Facilitate dialogue between the committees managing toilets and the ward officials for issues that the city needed to be addressed
- Develop capacity-building events to improve hygiene, knowledge of good health, and linked practices

Central to the success of this whole process was creating a relationship between ward administrations and the community organisations. Slum dwellers rarely meet their ward officials, so the first step was to invite all the committees managing toilets to meetings in the ward offices. This helped committee members to understand how the ward functioned and to meet the people in charge of water, waste management and so on. The first real surprise was when ward officers claimed that they had nothing to do with the toilets constructed under the SSP, since these were to be managed and maintained by the communities themselves. It was clear that communication flows had to improve; senior leadership in the municipality needed to intervene both to clarify roles and responsibilities and to explore policy matters on issues that the survey had revealed. The most urgent issues initially discussed were the water and electricity charges. Individual

community committees or ward officials could not have handled these on their own. Clearly, this was an issue calling for intervention from senior officials, with documentation sent to the regulators of electricity and water to change the tariff.

For the engineers and staff in the sanitation division, these processes are often alien. Often the reaction is, "Oh God. One more additional responsibility!" However, when lists emerge, solutions are devised, and the community's response and reaction makes things work, the cycle of negativity transforms into positive relationships. The issues to be raised and things to be studied and explored will continue. But even in the early stages of this collaboration, much has been learned.

The survey-based indicators

In this section we include some sample pages of the form that was used to draw useful indicators from the data collected by the surveys. These indicators and the calculations from which they are derived (in the yellow columns) are directly related to questions in the original survey, which are referred to by number in this form. The indicators fall broadly into following categories:

- Settlement indicators, including land status, basic civic amenities, sanitation facility deficits, and extent of open defecation
- CBO indicators, measuring CBO involvement in
- maintenance and finances for maintenance
- Physical status indicators, measuring the physical condition of toilets and their service connection status
- Sanitation habits, looking at such variables as hand washing, disposal of garbage and sanitary napkins, and the need for behavioural change
- Individual ward indicators, indicating the maintenance requirements and priorities in each ward, to be taken up by the respective ward offices that are created to deal with the ward's maintenance needs

Next to the sample indicators on each page (in the green columns) we have included some of the findings that have emerged from the survey, along with some observations about these findings. These findings, like the indicators, are not meant to be comprehensive, but simply illustrate a process that is in use and still evolving. A complete version of this form can be found in the Annex.

The location of each toilet that was surveyed was marked on a Google map

Meeting held at the K (East) Ward Office between the CBO toilet committee members, SPARC representatives, ward officers and the officers in charge of the sanitation survey process

Indicators developed from the survey and evaluation

Examples of settlement indicators

Indicator description	Calculation method/formula	Unit
Land ownership	Number of settlements on each particular land ownership type, divided by total number of settlements surveyed	%
Facilities in the settlement	Number of settlements with each particular facility, divided by total number of settlements surveyed	%

Land ownership	
Settlements on government land	31%
Settlements on private land	42%
Settlements on MHADA land	5%
Settlements on railway land	1%
Settlements on BPT land	6%
Settlements on collector land	20%
Settlements on forest land	0%
Settlements on other land	1%
Facilities in the settlement	
Settlements with water	95%
Settlements with electricity	100%
Settlements with drainage	80%
Settlements with sewerage	23%

Observation

- 56% of the settlements where toilets were built were situated on state government and municipal land.
- 42% were on private land.
- 7% were on central government land (Mumbai Port Trust Railway).

By and large, central government and private land owners do not give permission to build toilets. The Alliance is advocating that sanitation should be provided regardless of tenure.

However, the challenge continues in gaining access to sewerage systems.

For households in slums, availability of water and electricity is a new phenomenon. That doesn't mean all the houses are reached but almost all the toilets are.

The list of indicators is directly related to the questions in the survey. They were broadly categorised into:

1. Settlement indicators

Measuring status of the settlement land, status of basic civic amenities, sanitation facility deficits and open defecation.

2. CBO indicators

Measuring CBO commitment towards maintenance, finances involved in its maintenance.

3. Physical status indicators

Assessing physical condition of the toilet, its service connection status.

4. Sanitation habits

Measuring the most pronounced sanitation habits, including disposal of garbage, washing hands, disposal of sanitary napkins and other areas where behavioural changes are to be sought via visual aids, so functions such as garbage disposal which, though the city's responsibility, can be community-led producing processes that will improve the relevant function of the city.

5. Individual ward indicators

Discussions regarding the maintenance responsibility of the city pointed to the respective ward offices. These offices are specifically created within the municipal machinery to cater mainly to the maintenance needs of the respective wards. They also represent the people living in the ward. Therefore, the WARD indicators are expected to help decide the priorities on various issues highlighted in each ward.

CBO indicators

Indicator description	Calculation method/formula	Unit
CBOs non-existent or non-functional	Number of toilets where No CBO is currently taking care of the toilet. CBO exists but is not interested in taking care of the toilet, in each case, divided by the total number of toilets surveyed.	%
Toilets whose maintenance is sub-contracted	Number of toilets marked under the YES column of survey question 22, divided by total number of toilets surveyed.	%
Toilets where caretaker room is not present	Number of toilets marked in the NONE column of survey question 38, divided by the total number of toilets surveyed	%
Toilets where caretaker room is inhabited by the caretaker or the cleaner	Number of toilets marked in the YES column of survey question 22, divided by the total number of toilets where a caretaker room was constructed	%
Toilets where caretaker's room is used for purposes other than for caretaker's living	Number of toilets where the caretaker room is used for other purposes than housing the caretaker, divided by the total number of toilets where a caretaker room was constructed.	%
Income	Evaluate the pass system (family membership system) of toilets from questions 74 and 77	%
Toilets that run only on the pass system (family membership)	Number of toilets marked as "family pass issued" in question 77, with no pay per use users in question 77, divided by total number of toilets	%
Toilets that have a quasi-pass system: pay/use structure	Number of toilets marked as "family pass issued" in question 77 that also have pay-per-use users, divided by total number of toilets	%
Toilets that have no passes and are only pay/use	Number of toilets marked as "family pass not is- sued" in question 77 that have pay per use users, divided by the total number of toilets	%

CBO working	
CBOs non-existent or non-functional also includes toilets that are closed	23%
Toilets whose maintenance is sub-contracted	24%
Toilets where caretaker room is inhabited by caretaker/cleaner	71%
Toilets that run only on the pass system	31%

Observations

Despite the challenges and limited support from the city, more than 75% of the toilets were still functional and managed by the communities.

Physical status indicators

Indicator description	Calculation method/formula	Unit
Structural soundness of toilet blocks	Evaluate questions 58,59 and 60 from the survey questionnaire to get the toilets where structural fallacies are seen	%
Toilet blocks with leaks	Number of toilets with leaks, divided by the total number of toilets.	%
Toilet blocks with cracks	Number of toilet blocks with cracks, divided by the total number of toilets	%
Toilet blocks with exposed reinforcement bars	Number of toilet blocks with exposed reinforcement bars, divided by the total number of toilets	%
Toilet blocks that have undergone design changes	Number of toilet blocks that have undergone design changes (question 92) divided by the total number of toilets	%
Toilet blocks with all seats functional	Number of toilet blocks rated 0 or blank in the "non-functional" column of question 34, divided by the total number of toilets	%
Toilet blocks with more seats for men than women	Evaluate question 34 of the survey. Number of toilet blocks that have more functional seats for men than for women, divided by the total number of seats	%
Toilet blocks with children's squatting area present and functional	Number of toilet blocks with a functional children's squatting area, divided by the total number of toilets with a children's squatting area, whether functional or non-functional	%

Condition of toilet seats
Toilet blocks that have undergone design changes
Toilet blocks with all seats functional
Toilet blocks with more seats for men than women
Toilet blocks with children's squatting area absent

Observations

In India, 50 users to one seat is considered an acceptable ratio. Even in where there are toilets, 34% of people continue to defecate in the open simply because the number of seats is not sufficient or because seats are not functional.

User-to-seat ratio
Settlements where the ratio of users to seats is greater than 50:1
Settlements with open defecation

Physical status indicators – infrastructure services

Indicator description	Calculation method/formula	Unit
Water supply	Evaluate the water supply facilities from question 63 of the survey.	%
Toilet blocks with municipal water connection	Number of toilet blocks with municipal water connection divided by the total number of toilet blocks	%
Toilet blocks with other sources of water	Number of toilet blocks with water facilities other than municipal connection divided by the total number of toilets blocks	%
Toilet blocks that use tankers	Number of toilet blocks that use tankers divided by the total number of toilet blocks	%
Waste removal	Evaluate the sewage disposal method from the survey questions 67 and 68	%
Toilet blocks with septic tanks	Number of toilet blocks with septic tanks divided by the total number of toilet blocks	%
Toilet blocks with sewerage connection	Number of toilet blocks with sewerage connection divided by the total number of toilet blocks	%
Toilet blocks where waste is discarded into open drains	Number of toilet blocks where waste is discarded in open drains divided by the total number of toilet blocks	%
Electricity supply	Evaluate the electricity source question 71 in the survey	%
Toilet blocks with legal electricity connection	Number of toilet blocks with legal electricity connections divided by the total number of toilet blocks	%
Toilet blocks using electricity illegally	Number of toilet blocks with illegal electricity connections divided with the total number of toilet blocks	%
Toilet blocks that have no electricity	Number of toilet blocks with no electricity connection divided by the total number of toilet blocks	%

Services	
Toilet blocks with municipal water connection	58%
Toilet blocks with tapped water supply for each seat	42%
Toilet blocks with septic tanks	39%
Toilet blocks with sewerage connection	61%
Toilet blocks with legal electricity connection	93%

Observations

It was observed that tapped water was provided mostly to the men's section in toilet blocks. Post survey we found that only 13% of the toilet blocks were providing tapped water to the women's section.

Sanitation habit indicators

Indicator description	Calculation method/formula	Unit
Solid waste management	Evaluate question 93 and 94 for solid waste management	%
Settlements discarding garbage safely	Number of settlements that discard garbage through Dattak Vasti Yojana or into designated dustbins, divided by total number of toilet blocks (Do not include settlements with collection facilities that dispose randomly.)	%
Settlements discarding garbage randomly	Number of settlements discarding garbage randomly divided by the total number of toilet blocks	%
Toilets where women discard menstrual waste randomly	Number of toilet blocks where menstrual waste is discarded randomly (question 98 in the survey form) divided by the total number of toilet blocks	%
Toilets that are negatively influenced by political pressures	Number of toilet blocks with political interference (question 102 in the survey form) divided by the total number of toilet blocks	%
Cleanliness		
Toilets that are clean and usable	Number of toilet blocks clean and usable divided by the total number of toilet blocks	%
Toilets that are not very clean but usable	Number of unclean but usable toilet blocks divided by the total number of toilet blocks	%
Toilets that are not clean but are used due to the need	Number of unacceptably dirty toilet blocks divided by the total number of toilet blocks	%

Settlements safely disposing garbage	75%
Toilet blocks with no dustbin facility in women's section	51%
Toilet blocks where women discard menstrual waste in bins provided	29%

Observations

The data show us that most communities are committed to safe disposal of garbage and hence interventions that link up the city's process to community initiatives could prove useful to solve the garbage problems for the city.

Almost a quarter of the toilet blocks were without community committees managing the toilet or else the toilets were closed. This is often the case when rival groups in the communities supported by political parties fight over the toilet blocks.

Individual ward indicators

Indicator description	Calculation method/formula	Unit
User-to-seat ratio	Total population divided by the total number of functional seats	%
	Settlements where the ratio is <25:1	%
	Settlements where the ratio is >25:1 but <50:1	%
	Settlements where the ratio is >50:1	%
Settlements with open defecation	Number of settlements with open defecation divided by the total number of settlements	%
Waste removal	Evaluate the sewage disposal method from survey questions 67 and 68	%
Toilet blocks with septic tanks	Number of toilet blocks with septic tanks divided by the total number of toilet blocks	%
Toilet blocks with sewerage connection	Number of toilet blocks with sewerage connection divided by the total number of toilet blocks	%
Toilet blocks where waste is discarded into open drains	Number of toilet blocks where waste is discarded into open drains divided by the total number of toilet blocks	%

Interestingly, when the city first considered the survey it had little interest in its potential. It was only after being walked through it by the SPARC team that the other NGO, Pratha and the SSP conceded that it was a useful database.

NSDF and Mahila Milan use surveys both for the data and for the relationships they help produce. Communities discuss their issues in groups and once they begin to accept the presence of the survey team not simply as data collectors but as people who are there to assist them, to help them make connections to the city, 'yes/no answers' become discussions and reflections.

The city has hired several consultants to introduce a paperless administration. Yet, at present the officials are comfortable only with hard copies. And after they were given hard copies, their ability to monitor first 100, then 500 and finally several thousand toilet blocks on a database is acceptable as long as SPARC does the actual leg work.

Observations

The survey methodology allows for comparisons between wards as well as an overall picture of the city. This makes it possible for the ward to assess the priority that should be given to different issues.

For example, the overall city picture shows that 63% toilets have more than 50 users per seat, but in A, F-North and H-East Wards, all toilets have more users per seat than they should. Open defecation around toilet blocks at a city level is 34%, but A and F-North wards have open defecation rates of around 90–100%. However, H-West ward has no instances of open defecation around community toilets.

While an average of 25% of the settlements in wards city wide failed to dispose properly of garbage, in the settlements in G-North ward, the average was 71%. Therefore, solid waste management interventions in this ward take priority over other wards.

Example of documentation provided to a Ward office

WARD A at a glance

Assessment dashboard	
Toilets for assessment	2
Toilets assessed	2
Settlements covered	2
Settlements with open defecation	2
Major interventions - CBO reformation.	
Settlements with over 50 users sharing a seat	2

Settlements and toilet highlights

Both assessed toilets cater to a large dense slum colony on collector's land at Colaba.

Both toilets have active women's participation in equitable water distribution, organised garbage collection and toilet maintenance.

Incidents of open defecation were observed in children as well as adults in both toilets.

User facts - sanitation habits

At both toilets menstrual wastes are carelessly disposed of. There are signs of random spitting in both toilets.

Although the settlements have door-to-door garbage collection, inside the toilets garbage is not properly disposed of.

Toilet facts - soft services

ESSENTIAL SERVICES
Both toilet blocks have functional urinals.

Both toilet blocks have an unaltered children's squatting area, but only one uses it.

Only one of the two toilet blocks has a seat accessible during night time emergencies.

Only one of the toilet blocks has a piped water supply inside.

SERVICES FOR HYGIENE PRACTICE
Neither toilet has a wash basin.

Only one toilet has a container in the women's section for disposing of menstrual waste.

Toilet facts - infra services

WATER
One toilet gets municipal water. The other toilet uses water from a private connection and supplements with water tankers.

ELECTRICITY
Both the toilets have legal electricity connections provided by BEST and are available all the time.

SEWAGE DISPOSAL
Both toilets are connected to sewer lines and their waste is directed into them.

PHYSICAL STRUCTURE
Other than leaks in one of the toilets, both are in good physical condition.

Neither toilet has made design changes; however, both toilets have been renovated by their CBOs.

Toilet facts - CBO & finances

CBO MANAGEMENT
One of the two toilets has an inactive CBO and another CBO has recently come forward to take up its management.

All members of active CBOs reside in the same settlement.

One of the toilets has an active CBO managed by women that is also involved in water distribution and garbage collection in the settlement. The members have outsourced the toilet maintenance because it is more than they can manage.

CBO FINANCES
Both toilets receive income from family passes as well as from users who pay per use.

The toilet that outsources its maintenance has a high income, which funds the caretaker's salary. The other toilet shows a deficit, but according to the CBO, income and expenditure mostly break even.

Individual toilet documentation

Toilets at a glance in photographs and in words

EKVIRA MITRA MANDAL

SONIYA MAHILA VIKAS MANDAL	
Soniya Mahila Vikas Mandal is a fully women-managed CBO that is active in various activities for the settlement development such as equitable distribution of water, garbage collection. The CBO has outsourced the toilet maintenance to an informal agent who looks after the overall maintenance with some oversight of the CBO. The toilet faces acute water shortage and is closed when there is very little water.	Cleanliness – not very clean but usable Physical condition – looks good

JIJAMATA MAHILA VIKAS MANDAL	
Jijamata Mahila Vikas Mandal is a CBO that is inactive in maintaining the toilet and a new CBO by the name 'Jan Jagran Sevan Sangh' has come forward to take over the maintenance. The toilet does have municipal connection but takes water from a connection at a nearby political party office.	Cleanliness – clean and usable Physical condition – looks good

Individual CBO documentation

NAME OF CBO	AREAS OF INTERVENTION			
	SURVEY STATUS	CBO RELATED	STRUCTURAL	PHYSICAL
Suyog Nagar Rahivasi Seva Sangh, Gharton Pada 2, Sant Mirabai Road, Dahisar (E)	Survey completed	Change report not submitted	No intervention needed	Plaster and dado tiles damaged
		Other documentation clear		Termite problem treated
		Only pass-holders allowed		Leakage observed (possibly from water tank)

Ward divisions of Mumbai

Toilet status summary R WARD (North)	
Surveyed toilets	13
Toilet demolished under SRA Scheme (Shantinagar Jan Kalyan Samiti)	1
Toilet with non-existent CBO (Eksar Koliwada)	1
Toilet not surveyed because CBO not available (Shivbhavani Seva Samiti)	1
Toilets needing structural assessment (Navtarun Mitra Mandal, Dahisar)	1
Toilets with septic tanks connected	8
Toilets with sewage lines connected	5
Toilets with adequate municipal water	5
Toilets with inadequate municipal water	8
Toilets with electricity Issues	0

Reflections on the monitoring process in Mumbai

1. In many cities there has been city-wide scaling up of sanitation in slums through community sanitation facilities, yet the process of reviewing what has been done and what can be learned from it has been followed only in Mumbai.

2. This review could have been done through a grant from a donor, but that would have limited its institutionalisation within the municipality as a learning instrument to support and strengthen the process.

3. We know that the creation of a city-wide slum sanitation process will take a very long time to become universal; however, having demonstrated that it can be done in so many cities, we know that the precedent can work in large, medium, and small urban centres.

4. For all projects that have worked, there has clearly been an administrator who champions the process, and word of mouth from one committed administrator to another. This indicates that we still have to go a long way to universalise the process.

5. However, enthused community leaders, undertaking modest precedents and demonstrating the possibilities for community toilet blocks, have started the process in many cities.

6. The post-construction monitoring and capacity- building process in Mumbai demonstrates our most recently added phase. This encourages all stakeholders to learn from what works and what does not, and to go beyond finger pointing and accusatory interactions around what does not work.

7. Finally, when a large metropolis like Mumbai begins this work and the city and Alliance champion it, we use the new possibilities to seek other cities and towns that can move in the same direction.

Office bearers of the CBO and caretaker at the Dhuaneshwar Nagar, Mumbai toilet

Toilet maintained by Shivbhavani Seva Samiti, Mumbai

7. Reflections on advocacy and the Alliance: Partnerships for universal sanitation

For NSDF, Mahila Milan and SPARC, the process of advocacy is not a separate endeavour. It is deeply wrapped within their ongoing pursuit of making cities inclusive and functional for all, and it is central to this pursuit. Sanitation is clearly a very important yardstick, and an especially good indicator of how this process works.

The NSDF and Mahila Milan leadership believe that designing solutions and alternatives is vital for social movements in the present millennium. These solutions and strategies are the physical manifestations of the demands that social movements of the poor make of themselves. Unless the poor become transformed themselves, they cannot change what others perceive them to be. So if sanitation is a crisis of the urban poor, then the urban poor have to find a strategy that highlights its value to them, to seek a wide consensus around this within their own organisations, and to develop the confidence to involve the state and other actors in addressing this challenge.

It has always been a deeply held belief of NSDF and Mahila Milan, and something that SPARC has maintained as the centrepiece of its advocacy process, that the advocacy that works best for the poor, even if it takes more time, involves focusing first on poor people's priorities. This means examining the issues that people raise, looking at what are considered to be the critical elements of a solution after discussions among these people, trying to assemble that solution. Then showcasing it through an actual demonstration, tweaking it and refining it while sharing it with others, and allowing the leadership of the informal communities, men and women, to articulate it through dialogue and conversations with the outside world.

Advocacy, in other words, is the process of making their work visible to themselves and to others.

This section explores the parallel aspect of advocacy that unfolded while NSDF and Mahila Milan were constructing toilets.

In all activities, in its processes and practices, NSDF and Mahila Milan are multi-tasking all the time

Although these activities and processes may be presented as taking place in consecutive phases, what actually happens is shaped and directed by opportunity, occasions and optimism, and in reality these phases are mixed up and always in motion.

Opportunity to explore, expand and extend what they do, and seizing that opportunity when it arises, is central to the survival strategy of NSDF and Mahila Milan. SPARC and its professionals would confess that many times, without the push and pressure from NSDF, we would not seize the opportunities that come along. Many a time it works, at other times it does not, but the motto of NSDF and Mahila Milan is "the more attempts, the more hits!"

Occasions are created to seize these opportunities. They serve to build confidence and capacity within the federations to make representations, and the event itself provides the content. These occasions stimulate the federations' capacity to act as hosts. Hosting the occasions provides them the chance to become "actors" or "stakeholders" in a particular city and draws the attention of all other actors to that process – the formal city, its administration, politicians, and other citizens. Such occasions indicate that the organisations of the poor exist, that they have opinions, and that what is good for them as the poor is also good for the city. The melas or gatherings that accompany toilet openings or house exhibitions are all part of the show-and-tell of these occasions.

Optimism is crucial to the federation building and advocacy for the cause of poor people in cities. Federations invoke the 'can do' spirit that has helped the poor and vulnerable to create a life for themselves in the city despite all odds. A positive self-image and the optimism that they can be the change makers is crucial to social movements of the poor to transform their lives. NSDF has another motto in Hindi, "sabh sambhav hai", which means "everything is possible".

The three phases of advocacy

These three phases are unpacked below in much more detail, but briefly put, the first phase involves naming the challenge, imagining a solution, demonstrating what it looks like, and sharing it with others. The second phase includes building capacity within the leadership to support the wider network to work on these issues, seeking financial and technical support, and looking at what might be impeding the process. The third phase entails continuing learning, sharpening articulation, and widening outreach, and expanding the exploration to more locations, institutions and countries.

For the purpose of clarifying the strategy, we present here the various steps in each of the three phases. In reality, however, they are not necessarily consecutive – they can jump order and occur in difference sequences.

The first phase: Naming the challenge – imagining the solution and building a concept around it.

Especially in the past century, the city's view of the poor – that the "city does not owe you anything" and "you should be grateful for whatever you get" – has embedded itself in the self-images of the poor.

Demonstrating what change looks like. The real initial purpose of most social movements is changing the values and self-perceptions of communities and their networks. These age-old value frameworks get embedded in individual and collective belief systems of the poor. Changing them is a huge part of any organisational process that wants to expedite development through participation and the transformation of "beneficiaries" into central actors for a change.

Sharing change with others in the organisation and network. Change takes time, and experience suggests that the poor need evidence to change their practices and belief systems. Their survival strategy is fragile and change means risks, so collective transformation reduces risks as well as building the confidence to embrace change. Who is within the movement and who is outside is an important consideration here: often the members of any "organisation" face the challenge of whether what they fight for will produce goods and services that work for other people beyond the members, who struggle with the same issues. The Alliance of NSDF, Mahila Milan, and SPARC is clear that a process that works for the poor must be available to all who are poor. The organisational leaders are the stewards seeking change for all.

Presenting it to others: city officials as well as state and national governments. Believing in change yourself is very important but not enough. Nation-states and their representatives, the administration and politicians, have a duty and obligation to address the needs of the most vulnerable. No change can survive if its content is not widely accepted. So while the poor champion the change, they have to convince others beyond their own constituency. The two are

interconnected. Conviction on each side forces the other to step up to the challenge and embeds the conviction deeper within each constituency.

Setting precedents and expanding demands and expectations. "Precedent" is a word and a concept commonly used within the Alliance. It connotes a strategy or process that communities of the poor develop to demonstrate what works for them, for which they can then seek acceptance within the neighbourhood, city, and national and international institutions, and from all the actors involved. It can be something as simple as the width of a hallway or as multi-faceted as community-built and managed toilet blocks, with all the components and processes that accompany them. This concept of the precedent emerged from the experience of NSDF and Mahila Milan – they recognised that writing policies and advocating for them in the Indian context, as NGOs and civil society organisations do, may lead the state to adopt these policies, but that then they lie on the shelves along with hundreds of other progressive policies, never acted on and often forgotten in the day-to-day lives of citizens. A precedent, by contrast, is the practical manifestation of an idea or a policy – on however small or large a scale. When a precedent is set and then acted on, the chance that it will be replicated and scaled up by the poor is far greater. As the activity or the pattern keeps occurring, it becomes part of the natural order. Subsequently, turning it into a policy is a natural consequence, formalising an existing and emerging process.

The second phase: Championing change and moving it to scale; otherwise change will not develop.

Building cadres in the leadership who can support and assist networks to work on these issues. When we started working together as the Alliance of NSDF, Mahila Milan, and SPARC, we discussed who would be the champions to teach others, the flag bearers for change. Whatever the rhetoric in development circles, it is usually the professionals, the elite, the educated developmental practitioners who are the champions. Instead, in our practice we decided that the NSDF and Mahila Milan leadership would take the lead. This was logical for several reasons. First, whatever their level of commitment, most professionals move on to new jobs and then the knowledge of the institutional process that they have built up is lost with them. Since most of these processes are still new and not yet part of the education system, they are not easily replaced or reconstituted. When community leaders own and refine that knowledge, it stays within their organisations. Professionals develop the skills to assist, document and partner in refining solutions and to take other equally important roles. Second, funding the numbers of leaders and trainers who are needed in an enterprise like this is not financially or organisationally possible in most NGOs, whose meagre budgets and inability to retain staff are well known. Developing volunteer leadership from within the federations means that members have the chance to see people like themselves taking up such roles; having these role models produces confidence and pushes more community

members to explore such roles. Third, and most important, making such a change happen is at its heart a deeply political process. Often, the necessary degree of commitment is most reasonable for those inside the social movements and their leadership, for whom the stakes are highest.

Seeking financial and technical support to expand skills and demonstrate what the poor can do on issues that are important to them. The fact that community leaders champion the process does not mean that these leaders already know everything, or that all the resources for this process should come from the poor alone. The Alliance clearly believes in the poor taking ownership of the processes, but it does not believe that solutions should be restricted to self-help only. In almost all initial explorations, poor people make a definitive contribution to the concept of development and its advocacy, but seek assistance from others for things they cannot do or do not know about, or for accounts and finance.

Many grant makers have assisted the Alliance with grants; others have partnered with us to promote sanitation (and other objectives). Other affiliates of SDI have now also taken on the mantle to be the champions of sanitation in their own cities and countries and internationally. These resources help deepen processes in organisations, making it possible to explore precedents, engage cities, and explore projects at scale.

Exploring what is impeding this process. The push to engage others and seek universal acceptance of the process is never simple or straightforward. Change makers would not be needed if that were the case. Understanding the impediments to processing and addressing those challenges is crucial. Some of the impediments are internal and others are external. Champions dealing with these advocacy issues have to map the impediments and to integrate ways of coping with them as part of the process of universalising the concepts. This advocacy is not for the fainthearted. Most strategies that end up demonstrating their value also face huge opposition, whether overt or covert.

The third phase: Expanding the circles of exploration to more than one location.

When something new is explored, new possibilities become clearly evident to those who create the innovation as well as to those who see it and read about it. But sharing the idea with others first calls for evidence that can be transplanted. And while the innovation is "experienced" by new actors, those who developed it also become more aware of the conditions under which it survives in different locations. Within India, it became clear that, given the densities and long denial of sanitation facilities, the toilet blocks were a useful intervention. But they always ruffled the local politicians for a wide range of reasons, the most obvious being that these efforts were breaching their power base. Toilet blocks produced local organisations, yet until the local communities were organised, these toilets did not get maintained. For that, cities also needed to provide water and permissions. Most cities were happy to make some financial

contribution but lacked the mechanisms for a timely delivery of the money they had available.

Demonstrations of the toilet block design process, together with the negotiations and construction, were a powerful education and an important milestone in both addressing capacity building and introducing a new perspective on sanitation as something that should be apolitical, evolving out of the desperate need for "a place to go". In each new location, both in India and in other countries, understanding how the national and local governments operated administratively and carried out other functions – and presenting them with data about the sanitation deficit – was important and opened possibilities for dialogue.

Expanding practice to demonstrate a city-wide approach. The jump from "we need a toilet in our neighbourhood" to examining this at a city-wide level seems logical conceptually, but as is evident in the experiences of the Alliance, there are several stages that federations and urban centres have to go through before they can even consider a city-wide approach. The process has to start with demonstration units and many debates and discussions among community organisations, technical professionals, and city administrations. Capacity building that creates demand and the exploration of scalable solutions takes time. Yet the most important issue is to demonstrate the deficit and experiment with alternatives that can scale up.

Many who come to see city-wide sanitation in India feel that it all works thanks to sanitation subsidies. Yet even in India, where such subsides exist, cities most often fail to use the money allocated within budgets to build toilets. There can be great variation in the needs from place to place. In many countries in Africa, where some informal settlements are dense while others are sparsely settled, the toilet block design will have to change to fit the situation, and it may in fact not always be the right solution. And whatever modifications are made, they have to be assessed to check if they actually suit that community. But despite the different needs, there has to be an examination of the ways in which the city can be engaged in the solution. The list of impediments will continue and they need to be acknowledged and addressed.

Continuing learning, sharpening articulation, and widening outreach. SDI and its community leadership have taken up sanitation issues in informal settlements as a commitment to explore. In India, for the Alliance this means always having time to discuss sanitation with whoever comes to meet us; to share where and how we undertake sanitation access; and to explore ways to engage officials and politicians from different countries to explore this process and get them excited at the possibility of sanitation provision. But going on to do something with this process after getting excited is important. Unless that happens, the excitement fades and the strategy falls by the wayside.

Sanitation provision at scale: a federation-driven process

In India there is a popular saying about development – *"India is a graveyard of successful pilots"*. Many NGOs and even the government make huge investments in exploring possible solutions; however, they never seem able to scale up, grow and evolve. Without a doubt, all innovation and all precedents have value in and of themselves. However, they need to be tested for their scalability, the robustness of their base concepts, and the extent of buy-in that they are able to achieve on the part of the state, city and community. This is a critical transition for moving to city-wide sanitation. But it also applies beyond that scale in all the federation efforts to move towards universal sanitation.

While communities and NGOs are often challenged for failing to scale up their precedents or leverage state resources, no one challenges state and city institutions for abandoning a logically presented strategy. The reality is that both of these concerns need to be addressed. In scaling up their promising precedents, the poor need to tap into state resources, policy finance, infrastructure and legal frameworks. These are essential to make a process scalable, sustainable, and capable of leveraging other resources. Many evaluators and other observers tend to take just a snapshot view – this was financed by a grant, so now, how can it be multiplied?

The Alliance has taken over two decades to design, experiment with, and develop ways to get communities and government to accept their strategies, and while doing so, has produced valuable processes that it has shared with others. As a result of this many of its peer networks have also begun to explore sanitation for informal settlements, engaging with their cities to scale up the process.

Based on the experience of NSDF and Mahila Milan and their pursuit of solutions that work for them, there are a number of often concurrent activities and strategies for keeping the process alive and moving it to new levels, despite challenges and impediments:

1. Develop a concept and an idea and demonstrate how it is possible.
2. Create a network of champions from across sectors.
3. Never seek to produce perfection but only what is realistically possible.
4. Have the courage to face challenges and detractorswho dismiss or even attack the process.
5. When scaling up begins, accept that there will be some disasters and plan to correct mistakes and accept the faults.
6. Document, communicate and constantly share the power of the process.

7. Accept that there will be 'lulls' in the momentum due to both internal and external factors. The faint- hearted will walk away, but the champions will stay on and deal with whatever impedes the process.

8. Those who do the championing need boosts, and the exchanges and people coming to learn from them often provide that boost.

9. Recognise that dismissive administrators who impede the process often change their minds when outsiders come and extol the virtues of what their city has done.

10. Operate at the city, multi-city, province, multi- province, and multi-country levels so that something is always happening. That keeps the energies up.

The value of local and international exchange

Starting from within cities, and extending to other cities in India and later to exchanges with federations from other countries, the community sanitation process has sparked dialogue and exploration of possibilities at all these levels. Strangely, sanitation is rarely viewed as a strategy that makes it possible to address a wide spectrum of issues; yet this becomes the first aspect of its work that the Alliance demonstrates when people come to visit. Often the focus is on technical and financial issues and for most visitors the conversation would reasonably stop there, as slums are hardly the location for production of perfection and the process is clearly a messy one, practically and managerially. But the community leaders, especially the women, having sharpened their analysis through reflection and debates, like to show how work on sanitation serves several ends. Aside from fulfilling the needs of women and girls especially, they see sanitation as a clear indicator of good governance in cities. In a situation where the city cannot fulfil all of its obligations towards its informal settlements, sanitation is viewed by communities as the first and foundational step for an engagement that then moves on to address other issues. Exchanges end up being useful for the hosts as well as those who come to see. Nothing expands self-confidence and the capacity to articulate accomplishments as well as telling the stories, along with recounting the challenges and how they were dealt with. And nothing is more powerful than seeing for yourself what others have done in an area or on a subject that you also seek to explore.

Initially in India and in SDI, the exchanges were just between community leaders and the NGOs that accompanied them. Gradually city officials, mayors, and sometimes even national ministers joined the exchanges. This meant that the officials and politicians also connected with their counterparts and the local relationships that produced solutions were as evident as the strategy and outcomes.

Some international exchanges that we recall as significant and why

With the Asian Coalition of Housing Rights, 1988

In 1988, representatives from six countries came to Mumbai for an event that for the first time focused on the role of women in community organisations, and Mahila Milan was the host. At that meeting, three areas of discussion were presented.

Participants talked about how savings and credit, designed and managed to be controlled by women, can help women come together as collectives, develop financial literacy, and begin to demonstrate leadership in community activities.

NSDF in Mumbai was assisting slum dwellers along the railway tracks to design a model house, and women from all the visiting countries (Nepal, Thailand, Indonesia, Korea, Japan and Sri Lanka) inaugurated it.

Mahila Milan shared its plans for community toilets when the group visited Kanpur and inaugurated the toilets there.

Many Asian countries affiliated to the Asian Coalition of Housing Rights began to assist women to set up savings collectives; Mahila Milan and NSDF, through exchanges, helped develop local skills and capacities. What is less well known is the growth in the number of communities working on sanitation issues after that, as the challenge of open defecation now began to be discussed as a vital issue affecting women most of all.

With South Africa, 1992

In the early 1990s there were many exchanges with the South African federation around the concept of federation building. In 1992, the South Africans took the visiting Indians to see the "standing graves": miles and miles of freestanding toilets constructed as part of intended sites and services projects, where the poor were expected to go and build their own houses. Instead these sites lay vacant for years, and the settlements where people actually chose to live remained unserved. This triggered the dialogue on sanitation between the South African and Indian federations. Later the South Africans also brought delegations of community leaders and government officials to India to explore incremental upgrading, and sanitation-linked discussions were a part of that.

Uganda, 2005

The housing minister and his administrators came to Mumbai and spent a great deal of time visiting and discussing sanitation projects. As a result, this toilet block was built. Many sanitation partnerships between cities and communities have now been initiated.

Zimbabwe, 2009

Zimbabwe had such strict specifications for toilets that none could be built in areas where they could not be linked to a sewerage system. The Zimbabwe federation brought its senior officials from Harare to look at the toilets in Mumbai, and this resulted in a change in regulations, making it possible to explore other practical options for toilets where sewerage system links were not feasible.

Bill Gates came to see toilets in Pune, 2008

Gates was focused on technology, viewing sanitation as a technical and not a political process, so he did not value what the communities had done. Although the Bill & Melinda Gates Foundation has a programme on sanitation, as do many others, they do not view the need to get the state involved as critical. Rather, sanitation is seen as a private good for the poor that, with good and cheap technology sometime in the future, people will buy. We don't think so!

Exchanges organised by CLIFF, 2000-14

CLIFF, the financing facility supported by the UK Department for International Development[9] and the Swedish International Development Cooperation Agency, was designed in response to research examining the financial gaps that stop the poor from participating in construction. It is managed by Reall, an organisation with a long relationship with the federations. CLIFF now has many affiliated organisations in Asia and Africa that visit different countries, and when in India, they have always visited the sanitation projects. Many of the large city-wide sanitation projects have been financed by CLIFF funds as well as UPFI funds.

UN General Assembly, 2000

While the MDGs were being discussed at the UN General Assembly, SDI put together an exhibition of a house model and a sanitation block as designed by the federations in Mumbai. Kofi Annan and the country representatives attending the meetings viewed the model, and the advocacy of SDI for the right to sanitation went global.

9 The Department for International Development is a ministerial department of the government of UK working towards International Aid and Development with international organizations and the governments of poorer countries to help end poverty. www.gov.uk/government/organisations/department-for-international-development

Some final reflections

Out of the long history of our engagement with sanitation, and all the related complexities, whether political, technical, logistical, or financial, some basic themes emerge.

City-wide slum sanitation is not just about the one-shot construction of toilet blocks.

City-wide coverage of slum sanitation has somehow been predicated on completing the construction of a certain number of toilet blocks or getting everyone access to a toilet. It is assumed that this can be done in an urgent "mission" mode and that "completion" is an imminent possibility. In fact, there are many non-construction issues that make this an ongoing process. The city has to stay involved to ensure that the toilet blocks function and the communities get support to address challenges that emerge. Inevitably this includes not only toilet block construction and then maintenance, but also better access to water, energy, and waste removal, and through these an engagement with improved health and hygiene. In reality, this commitment in almost all cases is necessarily a multi-decadal activity focused on sustaining and improving sanitation conditions in slums.

The ongoing engagement with informal settlements can produce other important outcomes.

This relationship, which may have started to keep the toilets functioning, ultimately determines whether the sanitation facility is just an end in itself, or the means to a much larger end. City-wide coverage of all slums for universal sanitation is an important milestone in itself, but it needs to reflect the active engagement of the city with its informal citizens. This is important for the residents of the slum but also essential to the city.

The challenge in this process it how to push that engagement to explore other aspects of this relationship, ensuring that every child receives an education and that everyone has access to the practices and services that keep them healthy.

Cities need an ongoing and deepening engagement with their more vulnerable populations. The most valuable outcome of a good sanitation project is the relationship that links communities and their leadership to the city. No administration can reach every household, so organised settlements with their leadership structure, familiar and comfortable with rituals of engagement and action, are invaluable to the city. These values develop during the process of dealing with sanitation, and then become critical in addressing housing rights, disasters, and a range of other development challenges.

Converting a precedent into a national or even a state policy is tough, but converting it into practical action is even tougher.

Sanitation is an increasingly important subject in development. India's prime minister, elected in 2014, champions the cause. But the reality is that, although many cities may have started this process, it has not moved to the next level. Strong leadership, ongoing and sustained, is critical to maintain the process. In most instances, the Alliance has been able to initiate an interest within cities, but cities tend not to retain their commitment to the process once their leaders and administrations move on. When a cause has no champions, it dies. Most initiatives start with many challenges; achieving perfection is a misguided goal that will result only in frustration. This is by its nature a political process, which means it will always be messy.

Facilitation is a challenge.

There are very few off-the-shelf solutions to slum sanitation, and even fewer catalysts or facilitators. In the case of the Alliance, an unusual history pushed the process and communities championed it. But beyond the first phase, this could not be sustained without a partnership with the city. Our challenge remains embedding this process within institutional systems. It is not that difficult to demonstrate deficits and explore solutions. Turning them into a real programme for action is the challenge.

Construction businesses can build toilets (although most do not like to build toilets in slums) and can fulfil a contract. The real challenge here is to organise communities that will partner with the city to manage and maintain what has been built. We have a long way to go in India, as well as internationally.

Sanitation must remain a critical focus – for organisations and networks of cities, social movements and development interventionists at national and international levels.

Increasingly cities are seeking to be "smart": technologically connected as a way to attract national and global investments. But somehow the smart city criteria does not address such fundamentals such as universal sanitation, education and livelihood training for all, health and peace in the city. These are the rudiments of a good, safe, liveable city. This calls for ongoing commitment from such bodies as Shack/Slum Dwellers International and United Cities and Local Governments, the international association of mayors.

8. Acronyms

ASCI	Administrative Staff College of India
CBO	Community based-organisation
CLIFF	Community-Led Infrastructure Finance Facility
MCGM	Municipal Corporation of Greater Mumbai
MDG	Millennium Development Goal
MM	Mahila Milan
MMR	Mumbai Metropolitan Region
MMRDA	Mumbai Metropolitan Regional Development Authority
NGO	Non-governmental organisation
NSDF	National Slum Dwellers Federation
SDI	Shack/Slum Dwellers International
SPARC	Society for the Promotion of Area Resource Centers
SRA	Slum Rehabilitation Authority
SSP	Slum Sanitation Program of the Municipal Corporation of Greater Mumbai
UPFI	Urban Poor Fund International
WSP	Water and Sanitation Program, World Bank
YASHADA	Yashwantrao Chavan Academy of Development Administration

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Nallari A (2015) *All we want are toilets inside our homes!": The critical role of sanitation in the lives of urban poor adolescent girls in Bengaluru, India,* Environment and Urbanization, Vol 27, No 2 April 2015 pp. 73-88

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Videos on sanitation by SPARC on YouTube

Pune toilets – partnerships through sanitation:
http://youtu.be/F109bG4REgA

Inauguration at Shivaji Nagar of Mumbai Toilets 2001:
http://youtu.be/rl_4Lpp7Bis

Zero Open Defecation:
http://youtu.be/IPAPPp9tGGs

10. Annex: Municipal Corporation of Greater Mumbai SSP survey

MUNICIPAL CORPORATION OF GREATER MUMBAI (MCGM)
SLUM SANITATION PROGRAMME (SSP)
SURVEY UNDER PROJECT MANAGEMENT SERVICE (PMS) UNIT OF SPARC

Survey of toilet blocks constructed under MSDP-SSP		Surveyed by:_____ Survey Date:_____			
SETTLEMENT INFORMATION					
1.	Name of Settlement				
2.	Age of settlement in years				
3.	Address of settlement with landmarks				
4.	Ward/Constituency Number				
5.	Land Ownership	Govt. ☐ Private ☐ MHADA ☐ Railway ☐ BPT ☐ Collector ☐ Forest ☐ Other,_____ Specify			
6.	Facilities in the settlement	Water ☐ Electricity ☐ Drainage ☐ Sewerage ☐			
7.	Settlement Population	Total Households:		Total Population:	
8.	Toilet facilities in the settlement	**Toilet constructed by**	**No. of blocks**	**Functional/ Nonfunctional**	**No. of seats**
		BMC			
		MHADA			
		OTHERS			
9.	Is open defecation observed?	YES ☐ NO ☐	If yes, Specify? Men ☐	Women ☐	Children ☐
TOILET & CBO INFORMATION					
CBO & Caretaker details					
10.	Name of CBO				
11.	Address of CBO				
12.	CBO Registration Number				

3.	CBO Registered Under	Soc Reg. Act 1860 ☐ Soc Reg. Act 1950 ☐ Co-operative Act Housing ☐ Co-operative Act Labor ☐ Co-operative Act Small Scale ☐ Neighbourhood group ☐ Others (Specify):_____
14.	CBO activities other than toilet maintenance	

15.	CBO Member details			
Post	Name &Ph. No.	Gender M/F	Education & Occupation	Living in the settlement? Y/N
President				
Secretary				
Treasurer				
Member				
Member				
Member				
Member				
Member				
Member				
Member				
Member				

16.	Describe changes in committee since formation	
17.	Is the CBO change report submitted to MCGM?	YES ☐ NO ☐ NOT APPLICABLE ☐ If NO, explain why_____
18.	CBO Account Auditing done?	YES ☐ If YES, last audited year: _____ NO ☐ If NO, explain why:_____

19.	Does CBO have back Account	YES ☐ NO ☐ If YES, which bank:_____
20.	Toilet block is inspected by MCGM?	YES ☐ NO ☐ If YES, how frequently_____
21.	Caretaker is appointed?	YES ☐ NO ☐ If NO, who caretakes:_____
22.	Caretaking sub-contracted?	YES ☐ NO ☐ If YES, explain why:_____

23.	Appointed caretaker & cleaner details				
Role	Name		Age	Caste & Education	Working since

24.	Does the caretaker live in the caretaker room?	YES ☐ If NO, explain why& what is the room used for:_____ NO ☐
25.	Purposes the toilet premises are used for	Note usage of empty spaces, terrace, sections of toilet:
26.	Does CBO need any help for toilet Operations and maintenance?	YES ☐ If yes, explain requirements:_____ NO ☐

Toilet physical details

27.	Name of toilet block		
28.	Landmark near toilet block		
29.	Toilet GPS coordinates		
30.	Year of toilet	Construction:	Commission:
31.	Toilet constructed by	Write name of construction Agency & contractor	
32.	Type of toilet block	RCC ☐ Pre-Fabricated/Shiftable ☐	
33.	Height of structure (tick)	G only ☐ G+1 ☐ G+2 ☐	

34.	Total number of seats & number of functional /nonfunctional seats	Total toilet seats:	Toilet seats separate for gents & ladies YES ☐ NO ☐		
		Toilet seat facility	**Number of seats**		**Reason for non-functionality/absence**
			Func	**Non-Func**	
		Gents on GF			

		Gents on FF			
		Ladies on GF			
		Ladies on FF			
		Western toilets			
35.	Number of functional and non functional additional facilities	**Additional Facility**	**Number of facilities**		**Reason for non-functionality/absence**
			Func	**Non - Func**	
		Children's Squatting area			
		Urinals			
		Gent's bathroom			
		Ladies Bathroom			
36.	Toilet Timings	Open timing:_____ Close timing:_____			
37.	Are there any seats for accessing 24X7 or night?	YES ☐ NO ☐	If YES, no. of 24X7 seats for gents:_____, no. of 24X7 seats for ladies:_____ If NO, what people do when closed:_____		
38.	Caretaker room location	GF ☐ FF ☐ SF ☐ None ☐			
39.	Caretaker room access	Via men's toilet ☐ Via women's toilet ☐ Independent access ☐			
40.	Facilities for physically challenged?	Ramp ☐ None ☐			
41.	Is there adequate open space for tree plantation?	YES ☐ NO ☐	If yes, explain plantation:_____		
42.	Current toilet is constructed	By demolition of old toilet ☐ On a new site ☐ R&R of PAP ☐			
Physical Assessment					
Condition of Fittings, Fixtures and Finishing Material					
43.	No. of doors & door frames	In usable condition :		Need repair:	
44.	No. of Windows	In good Condition:		Need repair:	
45.	No. of W/C Pans	In usable condition :		Need repair:	
46.	Condition of Wash Basins	Gents section Present & used ☐ Absent ☐ Present but not used ☐ If not used :_____ explain why		Ladies section Present & used ☐ Absent ☐ Present but not used ☐ If not used :_____ explain why	
47.	No. of water Taps	In usable condition :		Broken/Stolen/ Absent:	
48.	Condition of water pipes	In Good working condition ☐ Rusted ☐ Show Leakage ☐			
49.	Lights are available inside?	YES ☐ NO ☐	If NO, explain why:_____		

50.	Condition of Exhaust Fans	Present and working ☐ Present but not working ☐ Absent ☐
51.	Condition of Plaster	Good and no damage ☐ Some damage seen ☐ Severely damaged ☐
52.	Condition of Dado	Good ☐ Slightly damaged ☐ Severely damaged ☐ Absent ☐
53.	Condition of paint	Good ☐ OK ☐ Need Repair ☐
54.	Condition of Flooring	Good ☐ Slightly damaged ☐ Severely damaged ☐
55.	Adequate Flooring slope	YES ☐ NO ☐
56.	Condition of Gas vent pipes	In Good working condition ☐ Broken & need repair ☐
57.	Note any other non-functional facilities	
	Structural Assessment	
58.	Leakages seen? If yes, Where?	YES ☐ NO ☐ If yes, where?: Roof Slab ☐ Underground Water tank ☐ Overhead water tank ☐
59.	Cracks seen? If yes, Where?	YES ☐ NO ☐ If yes, where?:GF: Slab ☐ Wall ☐ Column ☐ Beam ☐ FF: Slab ☐ Wall ☐ Column ☐ Beam ☐
60.	Exposed reinforcement bars seen?	YES ☐ NO ☐ If yes, where?:GF: Slab ☐ Column ☐ Beam ☐ FF: Slab ☐ Column ☐ Beam ☐
61.	Termite problem?	YES ☐ NO ☐
62.	Note any other major structural issues	
	Infrastructure Assessment	
63.	Water supply source	Municipal ☐ Borewell ☐ Ring Well ☐ Get water from homes ☐ Water on rent ☐ Tanker ☐ Tanker frequency_____
64.	Adequacy of water supply (tick)	GOOD (adequate municipal water) ☐ BAD (toilet closed when water is unavailable or water brought from homes) ☐ OK (not enough municipal water& use alternative sources) ☐
65.	Quality of water	Good ☐ Hard ☐ Dirty ☐
66.	Note water supply problems (municipal connection, tanker costs)	
67.	Sewerage disposal method	Sewerage ☐ Septic tank ☐ Aqua Privy tank ☐
68.	Sewage disposed into	Tank cleared by municipality ☐ Sewage into open drains ☐ Sewage into municipal sewerage Connection ☐
69.	Is there a separate line for drainage & sewage?	YES ☐ NO ☐

70.	Note sewage problems (choking, septic tank clearing problems)						
71.	Electricity source	Legal ☐		Illegal ☐		No Connection ☐	
72.	Electricity supply	24X7 supply ☐		Interrupted but available at night and for pumping ☐		No supply ☐	
73.	Note electricity supply problems (meter issues, disconnection & illegal conn.)						
	Toilet Usage Statistics						
74.	Family passes issued?	YES ☐ NO ☐	If NO, explain why:_____				
75.	Pass Information	Number of pass holders:		Charge per family per month:			
76.	Do families pay pass money regularly?	YES ☐	If NO, explain how expenses are managed by CBO				
		NO ☐	What action is taken to recover pass money				
77.	Number of pay/use users per day - Toilet	Number of pay/use users:		Charges per use: For Gents: _____ For ladies:_____			
78.	Number of pay/use users per day – Bathroom	Number of Bathroom users:		Charges per use: For Gents: _____ For ladies:_____			
79.	Total users per day	Num of pass holders X Avg size of family + Num of pay/use users per day:					
	Toilet Cleaning Routine						
80.	When is it cleaned?	Once a day ☐	Twice a day ☐	More than twice a day ☐	Not daily ☐		
81.	Mention reasons for non-cleaning						
82.	Cleaning supplies used	Acid ☐	Bleach ☐	Phenyl ☐	Others:_____		
	Assessment of Utilities/Supplies						
83.	Dustbin (tick)	Gents section Present and used ☐ Absent ☐ Present and unused ☐ Why not used?:_____			Ladies Section Present and used ☐ Absent ☐ Present and unused ☐ Why not used?:_____		
84.	Soap for washing hands	Gents section Present ☐ Absent ☐ Explain why soap:_____ is absent			Ladies section Present ☐ Absent ☐ Explain why soap:_____ is absent		
85.	Bucket inside toilets	Gents section Present ☐ Absent ☐			Ladies section Present ☐ Absent ☐		

86.	Notes on utilities/supplies	

Income/Expenditure

87.	Income (write average monthly figures)	From pass Holders **(A)**		From pay/use Users **(B)**	
		Any other**(C)**		Total **(A+B+C)**=	
88.	Expenses: write average monthly figures.	Water bill**(D)**	Water Tanker **(E)**	Electricity **(F)**	Cleaner Salary **(G)**
		Avg. Repair Expenses **(H)**	Cleaning Materials **(I)**	Sewage Disposal **(J)**	Caretaker Salary **(K)**
		Any Other **(L)**	Total **(D+E+F+G+H+I+J+K+L)** =		
89.	Are expenses more than income?	YES ☐ If YES, explain how maintenance Is managed _____			
		NO ☐ If NO, explain what is the surplus Income used for _____			

Repairs and Renovations

90. Reparis done since construction

Repair Element	Nature of repair & Reason for repair	Frequency of repairs
Doors		
W/C Pans		
Tiles		
Plastering		
Gas vent pipes		
Water motor		
Sewage pipes		
Water tank		
Septic tank		
Other -1		
Other -2		

91.	Source of funds for repairs	MP/MLA funds ☐ CBO funds ☐ Other:_____

92.	Explain if toilet has undergone any design changes:	Examples include: squatting area, urinal,bathroom conversions
	Solid Waste Management(SWM)	
93.	Where is the household garbage dumped?	In Toilet block premises ☐ On Open lands ☐ Randomly ☐ In Designated dustbins ☐
94.	Garbage collection mechanism in settlement	Dattak Vasti Yojana / Swacha Mumbai Prabodhan Abhiyan ☐ Cleared by municipality everyday ☐ Dumping never cleared ☐
95	Name of the CBO implementing DVY/ SMPA	Timings of the Service: _____
96.	CBO entrusted with SWM	YES ☐ NO ☐ If NO, is it interested to take up? YES ☐ NO ☐
97.	NOTE SWM issues and observations	
	Community Behavioral Notes	
98.	Menstrual Wastes discarded by ladies	Into dustbins in ladies section ☐ Into toilet pans ☐ Randomly discarded ☐
99.	Spitting observed inside & outside the block	YES ☐ NO ☐ Are spitoons provided? YES ☐ NO ☐
100.	Behavioral problems among toilet users.	Stealing/destruction of internal fixtures ☐ Violence ☐
101.	Health improvement seen after the toilet facility?	YES ☐ NO ☐ Explain changes in health situation: _____
102.	Political influence on toilet maintenance?	YES ☐ If yes, explain: _____ NO ☐ _____
103.	NOTE requirements as mentioned by CBO for maintaining the current toilet	
104.	Document checklist- tick available CBO documents and obtain a copy	Registration certificate ☐ Committee list ☐ Change Report ☐ Audit Report ☐ Bank Account statement ☐ Water Bill ☐ Electricity Bill ☐

Overall Status						
105.	Cleanliness of toilet	Clean and usable	☐	Not very clean but usable	☐	Not clean but used due to the need ☐
106.	Physical condition	Looks good	☐	Partially broken but usable	☐	Bad condition but used due to the need ☐

Signatures of CBO	
Name:_____ Signature with date:_____	CBO seal if available

Signature of SPARC Team Member who conducted the survey	
Name:_____ Signature with date:_____	

Signature of Community Development Officer (CDO) of CDC Cell of MCGM
Name:_____ Signature with date:_____

Signature of Architect/ Structural Engineer from SPARC
Name:_____ Signature with date:_____

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@SHAREresearch
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SPARC
Society for the Promotion of Area Resource Centers
808/A, Boman Lodge
Dr BR Ambedkar Road
Dadar East
Mumbai 400014

Phone: +91 (022) 65555061, 24173394, 24129144
Email: sparc@sparcindia.org, sparcnsdfmm@gmail.com

SHARE Consortium
London School of Hygiene & Tropical Medicine
Keppel Street
London
WC1E 7HT, UK

Tel: +44 (0)20 7927 2301
Email: contactshare@lshtm.ac.uk

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