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LOCAL ACTION WITH INTERNATIONAL COOPERATION TO IMPROVE AND  
SUSTAIN WATER, SANITATION AND HYGIENE SERVICES

**Connecting the disconnected: a unique public-private-  
people partnership (PPPP) sanitation model in Delhi, India**

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*Delhi is a home to around 2 million people living in 675 unauthorised settlements. These settlements have no or inadequate access to sustainable water & sanitation services due to lack of tenure rights and space crunch. For sanitation needs people have to depend on poorly managed & unsafe community toilet complexes or resorting to open defecation. The Safeda Basti pilot project attempts to demonstrate that synergy in the approach and work of the government, community, non-profit and private financial institutions can lead to a sustainable sanitation solution even for the poor living in unauthorised urban slums. This project demonstrates a unique Public-Private-People Partnership (PPPP) model in sanitation, wherein community participation was intrinsic throughout the project life cycle, resulting into a complete and sustainable sanitation to the targeted marginalized community.*

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## **Introduction**

Delhi, the National Capital Territory of India, has over **675** slum settlements with an estimated population of around 2 million. Most of these settlements have none or inadequate access to sanitation services i.e toilets and sewerage, drainage and solid waste disposal. This has resulted in highly unsanitary conditions in these areas affecting the quality of people's lives and health and city's economic growth.

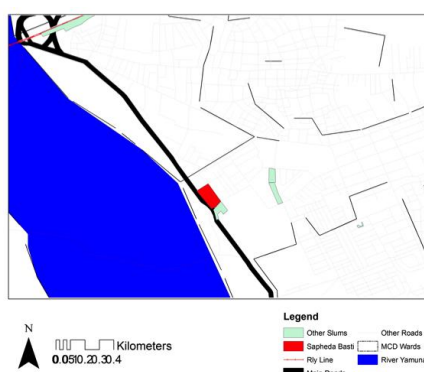
WaterAid India with its partner organisation "Centre for Urban & Regional Excellence" (CURE) under the program 'Swachh Dilli, Swasth Dilli' (Clean Delhi, Healthy Delhi) prepared Ward Sanitation Plans (WSP) to localize the City Sanitation Plan and promoted Community Management of Community Toilets (CMCTs) in slum areas. During this time, WaterAid India began to strengthen its intervention in two slum settlements namely 'Nursery Basti and Safeda Basti' – as the two demonstrated coherence and willingness to invest in improving their quality of lives.

The project '**Networking slum with city system - Connecting the Disconnected**' is an innovative and sustainable sanitation solution, setting an example where people in partnership with the local service provider & funding from private source successfully implement a community project. Most Public-Private Partnership (PPP) based projects fail as they miss out engaging community in project life cycle. Contrary to this, the *Safeda Basti* project is a unique demonstration, wherein local community people were engaged right from the project incubation and planning stage to project implementation, monitoring and post implementation of the project. The onus of the project is with community that ensures the sustainability of the project. It can be deduced that for the success of any community project "People" play integral role and thus a new partnership model termed as "**Public-Private-People Partnership model**" emerges. The project ensured the safe sanitation with safe conveyance of faecal matter and treatment at Sewerage Treatment Plant (STP). The elected representative declared the lane of the slum in which the pilot was done as ODF.

## **Brief community profile**

*Safeda Basti*, located in East Delhi, lies on north of the main road connecting Samshan Ghat, Geeta Colony and Krishna Nagar. The slum has existed here for more than two decades now. It has a geographical spread of around 150 metres in length and 75 metres in width. The settlement has a total number of 574 households. Most of the people have migrated from neighbouring States like Uttar Pradesh and Bihar. Majority of the

working population within the community is engaged as labourers and semi-skilled workers in the nearby cloth market. Some works as rickshaw pullers while some runs small shops. Around 30% of the houses are either *Kutch*a Houses or semi *Pucca* houses that have thatched or tin sheets. However, there are houses that are built for two floors as well. Around 31% households are living on the rent.



**Photograph 1. Safeda Basti location**

Source: CURE



**Photograph 2. Safeda Basti morning view**

Source: WaterAid India

## The situation – key issues to ponder

### Community toilet complex (CTC)

The slum has only one CTC, owned by Delhi Urban Shelter Improvement Board (DUSIB), which is based on on-site system. DUSIB is a Delhi government slum development department, which provides toilet facility in slums through CTC. The community was largely unhappy with the management of the CTC as the CTC is closed at 10:00 P.M and reopened at 6:00 AM. This causes huge inconvenience to the people, especially females, as they cannot use the CTC after 10:00 PM. This compels them go in the open to defecate, while women even do not have that option due to their safety and security. Moreover, there is an issue of availability of water, which is irregular due to the regular breakdown of water pumps in CTC. The CTC's septic tank also sometimes overflowed that made the entire premises highly filthy and unhygienic. This at times even leads to the temporary closure of the CTC. Women in slum do not use CTC in the morning in order to allow school going children and working males to use the toilets in the morning peak. Women also hesitate using CTC after sunset due to personal security.

### Drains

There were only unpaved drains present on the main access street within the settlement. The rest of the slum did not have a drainage network. The general slope of the area had not been considered while laying of drains and its outfall. There were sections where water logging took place. A very significant observation from the slum is that people usually cover the drains with a large stone in order to have the access to their homes. This obstructs the flow of the water and the drain cannot be cleaned regularly.

### Sewer

There has been no sewer line present in the slum. Few houses have household toilets with outfall into open drains. However, Delhi Jal Board (DJB) sewer line is passing parallel by the settlement within the 30 meters. Delhi Jal Board (Delhi Water Board) is the government authority mandated to providing portable water and sewer in the city. In unauthorised areas, DJB supplies water through water tanks and stand posts but it is not mandated to provide sewers in slums.

### Water

Water supply network is present in the slum. The DJB water supply is irregular as the pressure in the water pipe becomes weak from time to time. Due to which, many people have installed hand pumps.

People expressed willingness to build home toilets but held back due to three reasons:

- The settlement was illegal and lacked tenure security;
- They lacked technical know-how to fit a toilet in small home spaces with weak infrastructure;
- They did not have sufficient resources.

### **Project blueprint**

As DJB's sewage network passed by the settlement, WaterAid India & partner explored the possibility of networking households to the city's sewage system. Partner organisation's civil engineer made a technical assessment to determine if the household have any space to build toilet and if the slum could be connected to sewer network. *Safeda Basti* could be networked due to the presence of flat streets and presence of *pucca* and *semi pucca* houses. Two main streets, wide and flat, were identified as most suitable for the networking pilot. One street was taken up for pilot, where more people are willing to invest.

### **Project arrangements and method**

The project involved two government department, i.e, DJB and DUSIB. DJB provided written permission to connect the simplified sewer line with city sewer network. While DUSIB issued NOC for laying of sewer network. WaterAid India and financial institution, named Shubham Finance signed two separate MoUs with CURE, and provided grant for sewer line and toilet construction. Under the project, a formal O&M committee, comprising community people, was constituted and registered with district court. The bank account was also opened for the committee. All the beneficiaries were first enlisted in the register of 'Resident Welfare Association' (RWA) of *Safeda Basti*. The steps are

- Demand generation for Individual Household Toilets and connecting the same with simplified sewer line
- Seeking government approvals and permissions in writing
- Determine scope of work and prepare implementation plan with community people, contractor and partner NGO in a group meeting
- Ensure people representation for construction work supervision, set up community led O&M committee and formation of Toilet Credit Fund (TCF). Select treasurer from community and open a bank account for TCF & O&M committee.

### **Engineering plans**

A Total Station Survey was undertaken and engineering plans were drawn up. The plan included household toilets connected to a simplified sewer network in the selected streets with outfall into the DJB's sewer system passing by the slum. The cost estimate for laying the sewer line was estimated to be US Dollar 20874. Cost for fixing the toilet platform with connection to sewer line was estimated to be US Dollar 75 to 135 per toilet, depending upon the amount of stabilization needed.

### **Land issues**

Since the settlement is an unauthorized slum on Delhi Development Authority (DDA) land, WaterAid India & partner approached the agency for clarification with regard to relocation. DDA is Delhi government land owning authority. While no formal letter was provided by DDA, WaterAid India had been given to understand that for the moment there are no plans for resettlement, which means *Safeda Basti* is unlikely to be relocated for at least 3 years. This was sufficient to incentivize people for investing in home improvements.

### **Community processes**

Since the proposal came from the community itself, almost 40 households agreed right away to be part of the initiative. They also expressed willingness to contribute to the project despite the lack of tenure and uncertainty involved.

### **Government approval**

WaterAid India & partner approached DJB for permission to connect these households to the main sewer line. Series of meetings were held with DJB, CEO (a bureaucrat) and member Sanitation DJB to share plan/design and seek permission. Finally, DJB provided permission in writing.

### **Cost sharing plan**

The cost estimate for the simplified sewer systems and connection was estimated at US Dollar 20874. In addition, each household toilet had to invest US Dollar 75 to 135 per toilet. People were willing to contribute for toilet and sanitation infrastructure, including for toilets superstructure. Every household needed to contribute US Dollar 67 against community contribution for sewerage connection.

### **Gap funding**

Partner needed gap funding from WaterAid India for implementation of the project. This included a part fund against community contributions to escrow into a Toilet Credit Fund (TCF). The TCF is a kind of revolving fund that serves two purpose, that is, to collect resident contributions and pay out upfront capital costs on behalf of the households who gets this money as credit and shall pay back over time. Money revolving back to the credit fund is utilised for extending the network to other streets. The support of US Dollar 2980 from Shubham finance was utilised through TCF.

### **Project implementation**

The project included laying the shallow sewer line in one street of *Safeda Basti* along with its narrow tributaries, fixing the toilet seats, connecting it with the sewerage outflow and restoration of side drains.

The simplified sewer line of 110 metre was laid in one lane, drains were fixed, and toilets were constructed and connected with simplified sewer. Total 62 households showed willingness to contribute for sanitation infrastructure and connection with sewer system, out of these 60 have already built toilet and connected to the sewer network. More and more people are coming forward with a desire to have household toilet to ensure human dignity and women security. The outfall of the CTC's septic tank has also been connected with simplified sewer line, which has resulted into ensuring clean and hygienic CTC.

### **Challenges**

- The government/ Local bodies refrain themselves from any such activities, which do not have any precedents. This lack of will to adopt innovative measures. Convincing the government for simplified sewer line was a tough task.
- Experiment makes hard for any new idea, to penetrate itself in the system. The major challenge was to get permissions.
- The multiplicities of authority only increase up on the above challenge. The responsibilities are often tossed from one department to the other. This makes harder to proceed in the process.
- Convincing people and building consensus on anything that involves money is tough and often creates unrest among people. Making people invest in toilets and sewer connection was hard nut to crack.
- Slum is an important area for political players and agents. There are many free riders in the community. It was difficult to bring the feeling of the ownership of the project in them.
- Undertaking construction in a slums settlement becomes difficult due to increased risk factor (illegal settlement, temporary structures/housing, narrow roads, unsafe work environment, and anti-social elements).
- As most of the working people, who also are the key decision makers, works as daily wagers, it became very difficult at times to demand their time and presence for meeting. This delays the process and speed of making important decisions for the slum.

### **Operation and maintenance arrangements**

The overarching objective of this project has been to create end-to-end solutions for sanitation. In the process, an Operation and Maintenance Committee for the sewerage system, which comprised of seven female members and three male members to regularly monitor the construction work was formed. Now the committee manages and take care of the O&M of the project. The committee also resolves community disputes through calling meetings to come to a consensus. This creates a self-managed and regulated system.



**Photograph 3. Simplified sewer line being laid at Safeda Basti**

Source: WaterAid India



**Photograph 4: Household toilet being constructed & connected with simplified sewer line**

Source: WaterAid India

## Replicability

The project is replicable for several reasons:

- Large number of slums in the city are located along the sewerage system of DJB but not connected yet as there are no sewer network inside the slum.
- DJB gives permission to connect slum to the sewer line subject to availability of water and gradient to enable poor to get household toilets.
- Swachh Bharat Mission (Clean India Mission), a central government initiative, aims to provide safe sanitation to everyone and declare India as Open Defecation Free Country by 2nd October 2019. This makes all government departments to provide all support to citizens who want to build toilet at household.

## Lessons learnt

- Stakeholders consultation and alignment with the project is very important for successful project
- Most PPP model based projects fail, as they do not ensure community involvement. Thus, the community participation is utmost important in community projects. Community mobilisation processes must start early in the project. Sell sanitation project to community by indicating health and women security aspects

- Collaborate with all key stakeholders, seek government buy-in and gather all permissions in writing from all relevant government authorities. Also, submit a copy of permission letter/NOC at local police station so that construction work is done smoothly
- Make beforehand all necessary arrangements for O&M in infrastructure development projects. Community is a best stakeholder to take this charge. Formation of community institutions, i.e, women collectives, exclusive O&M committee etc. is required for this purpose
- Public institution, private sector operators and community people can work together to bring desired sustainable changes
- For the success of such projects, a conducive political environment is must. If the government is pro-poor seeking permissions is easy and faster
- Toilet Credit Fund (TCF), managed by local people, is essential to provide credit to poorest among the poor to build toilet
- Access to sanitation leads to improved quality of life, safe time and ensures human dignity and women security.

## Conclusion

The project is a successful pilot demonstration showcasing a unique public, private, people, partnership (PPPP) model wherein, government, non-profit, private bank, and community people worked in synergy to bring desired sustainable changes in sanitation value chain and upgrading the standard of living of the poor. The government, despite of policy in place, allowed to construct sewer network in unauthorised slum and to connect the same with city sewer system. Under this project, WaterAid India provided funds for sewer line construction, whereas Shubham Finance provided support to poorest among poor with finance to construct individual household toilets and connect to the sewer network. Community people also came forward with a strong support and spent money to build their own household toilets. The project started in April 2014 and completed in November 2015, although the government has not legalised the slum yet but it also has no plan to relocate the slum in near future. The current government is in the process of developing the city slums into *Aadarsh Bastis* (Model Slums) in phase manner. There are high possibilities that the *Safeda Basti* will be enlisted in *Aadarsh Basti* list in phase two as it already has achieved certain parameters necessary to declare slum as *Aadarsh Basti*. The government might also legalize *Safeda Basti* if the slum comes under *in situ* slum development programme of Delhi government.

This pilot was done in one lane of *Safeda Basti* with the objective of providing technical support to the government through demonstration of laying a sewer lines in the narrow lanes of unauthorised slums of Delhi. It also aimed to advocate with the government to provide similar sewer network in other lanes of *Safeda Basti* with government funding. Seeing success of this project, community people from other lanes of *Safeda Basti* as well as other slums in Delhi have initiated dialogue with elected government representatives and demanding to provide similar solution in their area.

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