

A Prototype Case Study by MHT - Ahmedabad's Garudiya no Tekro Settlement

Garudiya no Tekro, a small and easily overlooked informal settlement in the vast industrial area of Ramol, Ahmedabad, is not connected to the city's infrastructure. As a result of this, it does not have any water connections or sewage lines. However, this settlement is a home to several families with hopes and aspirations equal to those of any other city-dwellers.

One such resident is Rekhaben Dantani, who lives in a small brick house with her husband, three sons and one daughter. She does sewing work from home and her husband is a mobile traditional garments vendor. Apart from looking after her family and work, she is also involved with Mahila Housing Trust (MHT) as a Community Action Group (CAG) member in her slum community. She helps her community voice their needs and also raises awareness about safe sanitation practices.



Garudiya no tekro is a small settlement on the fringes of GIDC Ramol, Ahmedabad.

Source: Google satellite image.

Installation of SATO

In the given situation, MHT thought to explore the feasibility of the SATO Toilet System prototype, a technology that claims to require only $\frac{1}{2}$ a litre of water for every flush. In comparison to this, a traditional flush tank requires 8-10 litres and the ubiquitous 'bucket flush' uses up to 15 litres.

This toilet prototype has been installed at Rekhaben's house. The toilet block consists of one SATO Orissa pan with a tap inside the toilet. The tap is serviced by a small water tank placed outside the toilet which also connects to a spout for hand washing. The SATO technology switches between twin sewage pits connected to the toilet pan. The construction of this entire system took around 30 days to complete and the costs were borne by MHT.



Rekhaben, a resident of Garudiya no Tekro, talks about her woes before gaining access to a toilet.

The lack of water and sewage connections in her settlement has been a great strain on her socially and economically. Also, the water tanker comes only three times a week. So she has to fill up enough water to last her family until the tanker's next trip. Not having any sewage connections also meant that she and her community needed to go out into the open to defecate. This put her family at risk of catching a disease or getting an infection. It also put her and her 9-year old daughter at risk of assault or molestation. Not having an independent toilet always made her fear for her children's futures.



The SATO conventional toilet pan mechanism.

Source: SATO, LIXIL.

Rekhaben and her family were briefed about the peculiar characteristic of this toilet which is – the reduced per-flush water requirement. Earlier, she was a bit apprehensive about it as she thought that this technology won't work well with simply half a litre of water. But now they all benefit from having a toilet at their house. It saves their time as they can now avoid trips to the mobile toilets. It is safe and convenient as it caters to their daily toilet needs in private.

This toilet has brought great satisfaction for her family, she says. Her neighbours, upon seeing the newest addition to her house, can't wait to get a toilet of their own.



Inside the toilet is a ventilator, tap, and the SATO pan. The SATO pan looks similar to the normal pan.

“We do not have the infrastructure to build a traditional toilet here. We would continue to go out in the open if not for this venture by MHT.”



The toilet block constructed at Rekhaben's house.

	Date	Visit Log	Water Usage
1	15/06/2018	More water than necessary was being used for waste disposal. It was explained that the toilet requires less water.	8 litres
2	14/07/2018	The family still had not committed to using less water and claimed that waste could not be disposed of with less than 5 litres.	5 litres
3	11/08/2018	It was explained again that less water can and should be used.	4 litres
4	12/09/2018	After trying it, they realized that waste disposal can occur with a reduced amount of water. They have also changed the pit successfully.	2 litres
5	28/09/2018	Understanding regarding the SATO toilet has been reached and disposal is taking place with less than a litre.	< 1 litre
6	23/10/2018 onwards	No complaints and water use has remained under one litre.	< 1 litre