

## Innovating Waste Management

How Six Towns in Maharashtra Did the Trick

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Six towns in Maharashtra—Lonavla, Shirur, Deolali Pravara, Umred, Vengurla and Sangola, made remarkable achievements over the last one year in waste disposal and management. A combination of proactive and punitive measures ensured that waste management is seen as part of a larger set of social problems and community initiatives.

What does it take for a town to clean up its filth? One answer—getting rid of public dustbins. An unusual and counterintuitive move is among the reasons why six small towns in Maharashtra have been able to effectively collect, segregate and manage waste.

Earlier this year, Lonavala and Shirur in Pune district, Sangola in Solapur, Deolali Pravara in Ahmednagar, Umred in Nagpur and Vengurla in Sindhudurg were felicitated by the state government for their remarkable achievements over the past year in cleaning up their towns.

Their success has stemmed from a combination of factors.

### Initial Steps

First, it began with a pilot. A year and a half ago, on the back of the Swachh Bharat Abhiyan (SBA) announcement, consultations were held with officials from 338 councils in Maharashtra. Of these, 24 councils that had been performing well in terms of waste management were picked for a pilot project. “We said, ‘let us begin with the slum areas’,” said Meeta Rajivlochan, principal secretary and director of municipal administration, whose role in the crusade was crucial. “But people thought they would be the most difficult to clean.”

In January 2015, a bunch of councils pulled up their socks and plunged into the slums. By March 2015, there had been a visible improvement. “People realised there was progress,” said Rajivlochan. “The task was to build confidence. Once they believed in it, residents started pitching in.”

Since then each of these six towns has effected some astonishing achievements. The sizes of these towns vary—from populations of about 15,000 to 60,000, but they have followed a

broad set of similar practices. Karmcharis are being paid on time, toll free helplines have been set up, education programmes are afoot in schools, and that central totem of cleaning up—the dustbin— has been consigned to the dustbin of ineffective practices.

## **Unlearning Old Ways**

It works like this, each of the chief officers of the six benchmark councils explained—if there is a community bin in a residential area, people are likely to dump their household rubbish there any time of the day. As a result, such bins are invariably full, causing a stench and ensuring the area remains dirty.

So the councils decided they need to think out of the straitjacket of the bin. Residents were instead told there would be specific collection times when the vehicles would come around. They would then have to hand over their separated wet and dry waste to the vehicle doing the rounds. (In Sangola for instance, the council went one step ahead and handed out separate bins for wet and dry garbage in hundreds of homes.)

Into this new paradigm, the officials built in a self-correcting mechanism. Residents were enjoined to inform the council in case the vehicle did not show up on a particular day. Offending contractors would then not receive their wages. Toll free lines and complaint numbers were set up, including the possibility as in Lonavla of complaining via Whatsapp.

In some cases the councils increased the number of collection vehicles if they could, but staff numbers remained broadly the same.

Each of the garbage collection vehicles was also fitted with a global positioning system (GPS), to ensure they went to the spot on time. If there was a complaint, payments would not be made. These micro measures have gone a long way in impacting the cleanliness and culture of these towns by ensuring accountability and resident-centric vigilance.

## **Dealing with Open Defecation**

Each of these councils followed some core principles in their quest for cleaning up their towns. But each also added its own ingenious twist to the proceedings. Public shaming was one device used to try and root out the practice of open defecation. This was done by putting up names of the offenders in the local square, or printing their name in the local newspapers. Ramakant Dake, chief officer of Sangola, found these measures while somewhat effective were not good enough.

First they got the toilets cleaned every four hours in the morning. That did not work. Then they brought regular water supply and extra bulbs into the public toilets. It still did not work. “It was about the mindset,” he said. “People would take their iPhones and get into their cars to go to openly defecate.”

Passive aggressive measures like distributing roses were tried but it seemed to be

ineffective. Then the officials innovated with a band. Every offender would be chased back home with karmcharis playing and singing behind him, to inform the village of the shame. That too, was not enough. Then Dake moved to file first information reports (FIRs)—200 of them—detaining people at the police station for a few hours. This largely did the trick. The cultural change trickled in.

This is the specific story of Sangola, but other officers narrated varying versions of similar stories. In all councils, staff moved to build more public toilets and/or individual toilets in every home.

Lonavla for instance put in place 120 new public toilet seats whilst ensuring regular water supply to the public toilets. Vengurla set up “mobile toilets” in public spaces. In Shirur, existing public toilets were cleaned up and renovated following complaints that proper doors or regular water supply was not there.

Councils were also quick to introduce elements of shaming—either by putting names of offenders on posters, banners or in the local newspaper. Fining also helped, as did detaining people at the police station.

## **Banning Plastic**

One of the old villains that come in the way of clean up schemes is the seemingly innocuous but totally potent plastic carry bag. Each of these councils banned plastic bags thinner than 50 microns.

At Umred for instance, in over a series of raids officers seized 79 kg of plastic from retailers and sellers. Such people could, and were, fined. “If we can control them, we realised we can control the problem,” said Vinod Jalak, chief officer of Deolali Pravara, where 41 people were made to pay a Rs 50 fine for the offence.

Those defecating, those using plastic carry bags, those failing to separate their garbage—each of these acts could invite a fine. Using sections of their local municipal bye laws or the Bombay Police Act, the councils found that legal action helped where awareness drives and public shaming failed to do the job.

## **Incentivising Staff**

In many of these councils, officers said the population had ballooned but commensurate staff numbers had not increased over the years. One small step to start with was handing the existing staff better equipment—gloves, mask and septic equipment. Another move was by offering them medical insurance or medical check-ups. In Shirur, all pending arrears were paid off.

“First we awakened our staff by capacity building,” said Ramdas Kokare, chief officer of Vengurla. “We said, with door to door garbage collection, our work can be less.”

As the culture of cleanliness has set in across these councils, work for the staff, which might have required serious investment of energy and time at the start, has now a better payoff with residents cooperating and easing their jobs in the long run. “When the process started they thought their work had increased,” said Thorat. “But when people’s attitudes changed, they realised their work had actually decreased.”

## **Other Innovations**

Each of these councils followed a rough mix of most of these methods in terms of investing in new toilets, regularising garbage collection and imposing fines. But each one also tried something unique to itself to deal with its own circumstances and specific challenges. In Vengurla for instance, a six-acre dumping ground normally strewn with rubbish was cleared up and converted for most part into a playground and picnic spot. Only 10% of the spot is now a dumping ground, while composting is done in one part and a “green zone” created, where cashews, mangoes and coconuts have been planted. Not just that, the plastic waste is crushed and has been integrated into road development as a material.

In Shirur, there is a new sewerage treatment plant which processes the water from the drains before it is let out into the river. In Deolali Pravara, biogas is being generated from the waste collected in two schools, and now hoteliers have also approached the council for such a facility.

In Sangola, those who owned pigs were enjoined to keep them separately and not let them roam around, else they would be killed by council staff. After five pigs were killed, their owners realised they meant business. But if the pigs were not allowed to roam around to forage for food, how would they be maintained? Here the council hit upon an idea—why not direct all the waste from hotels for pig feed? This effectively helped link the hotel business with the owners, and deal with rubbish in a unique manner.

Similarly, in Lonavla, a hill station which sees a large tourist influx, several hotels have now started composting some of their own rubbish.

## **Role of the Leadership**

For the councils, the political leadership was indifferent at first, to cleaning up. In some cases, contracts were given out on the basis of political ties, considerably hampering a clean system and clean town. In such cases contract clauses were created in such a manner as to disqualify those errant contractors.

Politicians in any event, did not see how cleanliness was necessarily a political issue. “Once the local political leadership saw that the municipal staff was taking the initiative seriously, they joined in and gave their wholehearted support,” said Rajivlochan. “When the initial results came in, they realised that this would yield rich political dividends.”

Council chiefs said that political support was now strong, with clear results to show. The chiefs were themselves proactive, going on rounds from 6 am with various staff, personally crusading for the cause. They also pointed out that Rajivlochan's drive gave the movement some shape. Officers said she was one of the first principal secretaries to actually come into the field and work from there on.

Aside from this there were regular training programmes for chief officers and other levels of staff members.

## **Looking Ahead**

Residents have quickly realised the benefits of waste segregation and disposal. For instance, in Umred, from 3,000 cases of water-borne diseases, the figure was down to 1,200 last year. "Dengue used to be a problem, but this year we didn't have a single case," said Vijay Sarnaik, the chief officer.

Councils have made an effort to build the next generation of waste conscious residents through extensive school-level education programmes as well. Students are asked to take pledges on segregation and cleanliness. In several schools in Lonavla composting pits have been started. "Our target is that what we do should be sustainable," said Ganesh Shete, the chief officer of the council.

In other councils, more public toilets and individual toilets are in the process of being built, more composting efforts are underway and more individual home bins being ordered. Although the fines system is in place, the need for fining residents has come down as people increasingly toe the line.

The entire experiment has further shown that it's the little things and not the big costs that can effect change. "Small things can make a difference," said Tejaswini Deshmukh, Buldwana coordinator of Stree Mukti Sanghatana, who was a member of the evaluation committee that prepared a report on these councils. "Others can also be successful."

What these six have been able to achieve is now something that is sought to be repeated in other places. "Such things are not difficult to do, but require political will," said Rajivlochan. "These six have shown great results. Now we will try to replicate this and scale it up."