

## Solid Waste Management (Surat Pattern)

Surat's sporadic expansion between the 80's and the 90's resulted in a major service gap in the field of solid waste management (SWM). It resulted in one of the major epidemics in the form of Plague in the year 1994, which was probably the worst in the country in decades. As Plague was considered a manifestation of the service inabilities related to solid waste and drainage management, the city administration responded with a major cleanliness drive and a complete strategy to further manage its waste in scientific manner. Major administrative reforms like; re-arranging the six zones into 52 sanitary wards to gain better control, regular monitoring of waste management services, one-to-one coverage of all the nuisance points by sweepers, seeking assistance from private agencies in maintaining cleanliness, providing waste management services, slum improvement, and a responsive waste management system reducing time lag in delivery of services, etc., were some of the major initiatives taken by the city.

SMC (Surat Municipal Corporation) generates close to 1400 TPD of waste out of which presently 400 TPD is treated in its waste treatment plant developed and managed in partnership with a private agency. A 600 TPD waste to energy plant is in the pipe line where work has been awarded and an agreement between SMC and private agency is already in place. The 600 TPD plant will process mixed waste to produce high quality Syngas which will further be used for generation of 8 MW of electricity to be sold to the local grid. Apart from this, a 400 TPD integrated Surat SWM Project under JNNURM (Jawaharlal Nehru National Urban Renewal Mission) Ministry of Urban Development waste treatment plant through public private partnership (PPP) mode has been initiated, in which the private party will pay a royalty of Rs. 30/- MT to the ULB for handing over the mixed waste to the private party. Altogether, SMC will be able to bring in an investment of Rs. 275 Crore through private sector participation. It is envisaged that SMC will earn an amount of Rs.65 Lakh from the processing of 600 TPD of waste once the waste-to-energy plant is made operational.

The government undertook a massive clean-up drive as well as administrative reform exercise which transformed Surat into one of the cleanest cities in just 18 months. Some of the initiatives undertaken were:

- Re-arranging the six zones of waste management into 52 sanitary districts for better control of waste collection;
- Introduction of daily monitoring system for better waste collection efficiency;
- Posting of sweepers for round the clock duty at nuisance spots, which were invariably cleaned at least twice a day;
- Engaging private contractors for collection and transportation of waste to the disposal site, as well as sweeping and scrapping all major streets during the night time;
- Slum improvement operations were undertaken with the assistance of NGOs;
- Revamping the entire administrative and financial management system of SMC; and
- Policy decisions were taken to create a responsive waste management system by introducing complaint redressal systems. The drive was aimed at transforming the city, as well as the attitude of the people and government officials.

## SWM Project under JNNURM

The project was planned and implemented by the Municipal Corporation of Surat. The approved project consisted of the following components:

- Procurement of additional MSW Storage containers and littering bins;
- Procurement of additional street sweeping equipment such as wheel barrows; • Procuring 2 Mechanical sweepers;
- Procurement of additional vehicles for primary transport to Transfer Station (TS);
- Construction of closed-type two-level TS in 6 locations; and
- Construction of engineered landfill with required infrastructure and waste handling equipment.

Apart from the above, SMC undertook initiatives through Public Private Participation in implementing SWM for the following services:

- Door-to-door primary collection and transportation;
- Started Anudan Scheme as an initiative towards community participation in Municipal Solid Waste Management (MSWM);
- Secondary transportation – container lifting in some wards; and
- Compost plant for treating mixed MSW through 400 TPD plant implemented with PPP. Another 400 TPD plant is in pipe line and is due for construction.

It may be noted that while SMC outsourced part of their duties to private parties, it remained solely responsible for provision of SWM services to its citizens.

More Recently, To Protect Environment, Surat Installed Underground Garbage Bins

Surat has found an innovative and feasible way of storing garbage that is actually a ‘smart’ city project. Dumping garbage requires large landfills and with large disposal areas come heavy maintenance. They not only utilize vast amount of land area but the adjoining areas need proper care and measures that would filter the air that has with foul smell and infections.

The city has installed 43 underground garbage bins, each of which can hold up around 1.5 tons of waste. A unique feature of these garbage dumps is that they are equipped with sensors that send an immediate warning to the control room as long as the underground garbage is 70 per cent full.

**Source:**

[http://www.indiaenvironmentportal.org.in/files/file/City-Report-on-Surat-SWM-Project-under-JnNURM\\_Final.pdf](http://www.indiaenvironmentportal.org.in/files/file/City-Report-on-Surat-SWM-Project-under-JnNURM_Final.pdf)

<https://www.indiatimes.com/news/india/to-protect-environment-surat-installs-underground-garbage-bins-sets-a-high-standard-for-delhi-348553.html>