

8. GARBAGE COLLECTION AND MANAGEMENT – JABALPUR

“Smart solutions will be used to optimize processes along the entire value chain of Solid Waste Management”

– Strategy of Jabalpur as mentioned in its Smart City Proposal (SCP)

CONTEXT

Jabalpur is a major city of Madhya Pradesh with a population of 1,055,525, and decadal growth rate of 14.51% (according to the 2011 census).

The growth of urban population in large Indian cities is leading to pressure of municipal bodies for effective services, Solid Waste Management (SWM) being one of the foremost challenge confronting the municipal bodies. With the availability and increasing affordability of new technologies suitable for city level deployment, it has now become feasible for municipal bodies to deploy such technologies in the areas of basic service delivery.

Managing solid waste requires huge effort involving street/ public places/ household level collection, transportation and proper disposal. However, the use of new technologies such as Radio Frequency, sensors, etc. offers new ways to reduce the coordination/ management effort and optimize the steps required for municipal SWM.

THE INTERVENTION

Project description

Jabalpur Municipal Corporation (JMC) has initiated a Garbage Collection and Management system to ensure optimal collection, transportation and processing/ disposal of waste.

The main features of the system are:

- Ensuring waste collection
 - ~ Door-to-Door collection, tracking and monitoring of waste through RFID tags on household garbage bins.
 - ~ Suitable collection and monitoring from public bin (semi underground bins) through deployment of Bin Level Sensors (BLS)
- Vehicle Tracking and Monitoring System (VTMS) for coordination, tracking of SWM vehicles.

- Estimation of Solid Waste generation for planning in respect to disposal and input waste for Waste to Energy Plant

The project is scheduled to complete by 1 January 2018.

Key outputs/ outcomes

The monitoring system is being used in conjunction with VTMS solutions; this has resulted in:

- Ensuring complete coverage of door-to-door and community collection
- Manage refuse picking routes for SWM
- Monitoring and tracking all JMC vehicles under SWM department; reduced human intervention in monitoring process
- Monitoring and tracking the refuse weight by the refuse vehicle along the route; integration of refuse transfer station facilities with the centralized monitoring facility

Impacts

The project has enabled Jabalpur to have effective control and management on collection, transfer and disposal of Solid Waste; this has led to effective Solid Waste management starting from the household level.

Support and mobilized resources

The cost outlay for the intervention's RFID component is INR 169.57 crore and for the VTMS component is INR 13.76 crore.



Deployed garbage collection and transportation vehicle