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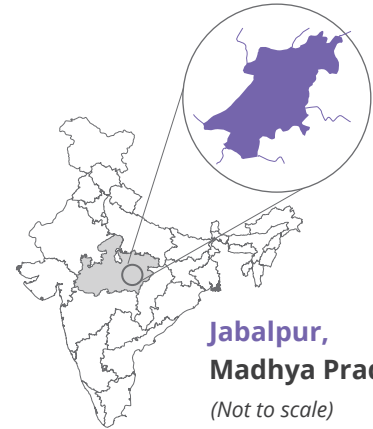
## ZERO LANDFILL & BIN FREE CITY: JABALPUR

### Project Highlights

- Establishment of a 10 Acre Waste to Energy plant at Kathonda area on PPP model providing all round solution to the waste problems of the city
- The plant consume 600 tons of waste per day and generates 11.5 Mega Watt electricity
- Installation of an ICT based 100% door to door garbage collection monitoring system with 276000 RFID tags installed across city to eliminate bin and make it a Bin free City

### Background

Waste management is a basic requirement of ecologically sustainable development. It is a comprehensive program optimizing waste collection, transport, and disposal along with activities to prevent, recycle, and draw energy from waste. Jabalpur Municipal Corporation (JMC) is responsible for providing municipal and civic services, which includes but not limited to the collection, segregation, transportation, treatment and disposal of Municipal Solid Waste (MSW) generated in the Jabalpur city of Madhya Pradesh. The city authorities in view of the mounting issues of waste management refined the solid waste management services by building a waste to energy plant at Kathonda for scientific disposal of all kinds of municipal waste, thus providing all-round solution to the waste related problems of the city.



**Jabalpur,  
Madhya Pradesh**

*(Not to scale)*

### Project Objectives

- I. To develop a waste to energy plant at Kathonda which can yield the following benefits:
  - A robust solid waste management solution to make Jabalpur a Zero Landfill City
  - A royalty amount of collected waste provided by ESSEL Infra increases the revenue of JMC
  - Prevention of ground water pollution due to the application of mass burning technology
  - Integration of the Waste-to-Energy plant with the centralized monitoring system

### Key Stakeholders

Jabalpur Smart City Limited, Jabalpur Municipal Corporation, Implementation Agency- ESSEL Infra, Vendor on boarded for Garbage Collection- ESSEL Infra

### Approach

The campaign covered various aspects of SWM in Jabalpur and adopted an integrated approach to strategize the activities being undertaken under the initiative as indicated below:

- Modifications and innovations in the waste collection instruments to ensure effective door-to-door waste collection services throughout the city
- Establishment of waste to energy plant to process all kind of solid waste
- Extensive campaigns and community engagement drives to increase mass-awareness levels about the initiative and the issue of SWM



## Achievements



The development and inception of the waste to energy plant has resulted in the following benefits and co-benefits:

- Efficient collection of waste, reduction of littering, foul odor and unaesthetic appearance of bins
- Sense of good hygiene and awareness towards environment are visible among citizens of Jabalpur.
- Better governance on collection of daily garbage & monitoring of garbage collection, Transportation system by the command Control center.
- While ensuring Cost reduction and resource optimization, system has contributed in improved environmental excellence
- City Wide apps (Mobile/Web based) enabled citizens & ward committees to upload concerns and report any violation such as missed collection points, Illegal dumping etc. to help the concerned authorities to take action within 24 hours and maintain cleanliness in the city
- Citizen centric system & MSW monitoring cell with the help of Integrated Command and Control Center having 24\*7 operations monitoring with data integration platform.
- Citizen reporting to provide complete situational awareness about real time information regarding Collection, transportation, treatment & disposal which is available at the ICC

## Success Factors

- Strong and stable leadership
- Technical innovations for effective management of solid waste including IT based innovations
- Intensive campaigning for increasing the mass awareness levels about waste segregation and management

## Limitations

- The key challenge faced for the successful implementation of the WTE plant was reducing the usage of one time usable plastic (Disposals) due to lack of awareness

## Future Prospects

The electricity generated by waste to energy plant is sent back to the grid for utilization. The environment is pollution free in the aspect of ground water and air pollution. The waste to energy plant also helps to avoid the consumption of useful land required for garbage dumping.

The system can easily be replicable and must be adopted by all major cities and towns of India to make a new India. The project helped significantly to achieve the targets set under Swachh Bharat Mission for Jabalpur City.

Source: Case received from the city

For more Information

<https://india.smartcitiescouncil.com/article/how-manage-solid-waste-learn-these-cities>

[http://www.ijater.com/Files/6e2b4d67-f7f0-4e7e-975d-4c9a52271844\\_IJATER\\_35\\_03.pdf](http://www.ijater.com/Files/6e2b4d67-f7f0-4e7e-975d-4c9a52271844_IJATER_35_03.pdf)

[https://smartinvestor.business-standard.com/market/ipoNews-560069-Jabalpur\\_shows\\_the\\_way\\_with\\_its\\_smart\\_system\\_of\\_solid\\_waste\\_management.htm](https://smartinvestor.business-standard.com/market/ipoNews-560069-Jabalpur_shows_the_way_with_its_smart_system_of_solid_waste_management.htm)

