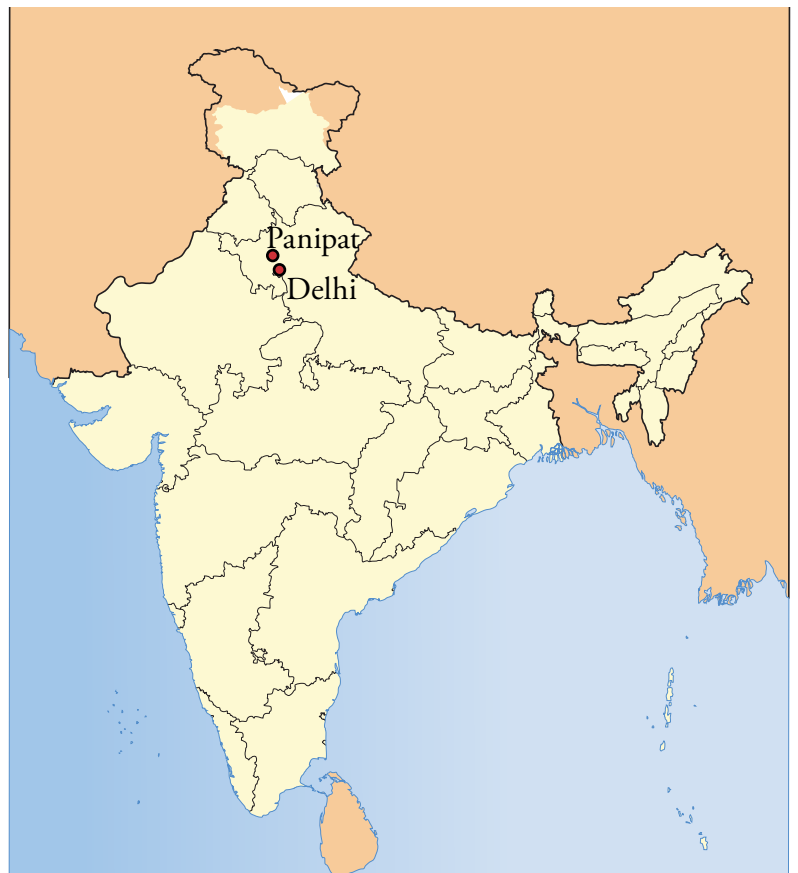




Panipat

Panipat is a major industrial center with a population of 3,00,000, located along the Yamuna river 90 km north of New Delhi. A renowned site of three historic battles, Panipat is gaining recognition for exemplary solid waste management (SWM) through a novel public private partnership. Residents, an NGO named Exnora Panipat Navnirman Samiti (EPNS), Panipat's Municipal Committee, Exnora Green Pammal (EGP), and PepsiCo have joined forces to make Panipat one of India's cleanest localities by bringing solid waste management services into compliance with the Government of India's Municipal Solid Wastes (Management and Handling) Rules.

Inaugurated in October 2007, the *Pavitra* (a Hindi word meaning clean) *Panipat* campaign has dramatically improved the cleanliness of neighborhoods and public areas, and reduced the volume of Panipat's waste. *Pavitra Panipat* has won the appreciation of residents and is being heralded as a role model for other localities.



A public private partnership for exemplary solid waste management



BACKGROUND

In 2006, Panipat's residents suffered from an intensifying solid waste crisis. Erratic waste management services were performed largely by unorganized, untrained private waste collectors. Litter clogged drains, attracted pests and regularly caught fire, creating extremely unpleasant, unattractive and unhygienic living conditions.

PepsiCo, having witnessed and supported Exnora Green Pammal's work in Tamil Nadu, saw Panipat's waste crisis as an opportunity. The company, which operates a bottling plant in Panipat, hoped that replication of Exnora Green Pammal's award-winning model of waste management would make Panipat a comparable showpiece for sanitation in northern India. EGP's founder, Mrs. Mangalam Balasubramanian, was invited to Panipat to assess the potential for such replication.

After meeting Panipat's Municipal Committee and residents, Mrs. Balasubramanian concluded that the multiplicity of receptive stakeholders made Panipat conducive for such a project. In February 2007, EGP and PepsiCo formally agreed to initiate the programme. EGP then placed a project manager in the new project management unit (PMU) in Panipat, and facilitated the formation of a local group, Exnora Panipat Navnirman Samiti (EPNS), comprised of representatives of residents welfare associations (RWA) from neighborhoods that would participate in the new programme.

Meanwhile, Panipat's municipal engineer, Mr. N. K. Jindal, and a team of junior engineers were trained at Pammal. In April, the Municipal Committee allocated office space for the PMU, and a memorandum of understanding was signed between EPNS and EGP. On World Environment Day, 5 June 2007, an intensive awareness promotion campaign was initiated to educate residents about the importance of segregating biodegradable from non-biodegradable waste to facilitate composting and recycling. Representatives from EGP, EPNS, PepsiCo and the municipal and district administrations participated actively in the campaign, holding public meetings in parks, and processions with students throughout the town. Red and green wastebaskets were distributed to all homes and shops. In October, a vermicompost shed was opened, and daily, house-to-house collection services were inaugurated for 1,000 homes. Within two years, coverage was expanded to over 10,000 homes in lower, middle, and upper income neighborhoods.

According to Mr. Jindal, now Panipat's executive engineer, "Before, there was waste everywhere, and animals came and fed on the waste. There were so many areas where there was no sanitary worker. Now the areas are clean."



ROLES AND RESPONSIBILITIES

Exnora Green Pammal provided technical guidance for initiating the SWM system, trained EPNS, prepared and submitted reports and plans, managed the project for the initial two years, and hand holding for two years till the system is fully operational.

Panipat Municipal Committee pays for transporting waste, identified land for the vermicompost shed, provides office space for the PMU, laid the access road from the highway to the compost shed, provides green and red waste bins to every residence, and carts and tools for Green Ambassadors, who collect the waste. The Committee's funds cover approximately 10 percent of the service's recurring expenses.

Residents pay a monthly user fee of between Rs 20 to 40 per household, depending upon their income level. Residents are also responsible for segregating their biodegradable waste from non-biodegradable waste. User fees paid by residents cover approximately 40 percent of the service's recurring expenses.

EPNS provides volunteers who collect residents' fees, monitor Green Ambassador attendance and performance, and pay Green Ambassadors.

IMPACT AND BENEFITS

After removing biodegradable and recyclable material from the waste stream, less than 20 percent of the total waste is dumped, saving land, and reducing the energy and expense of transporting waste to the dumpyard.

In 2009, *Pavitra Panipat* prevented the emission of 397 tons of carbon dioxide into the atmosphere by keeping nearly 573 tons of biodegradable, and over 621 tons of recyclable material out of the dump. For this, Exnora Green Pammal was awarded AAA-rated Green Business Certification from the Exnora Environmental Standard Organisation.

73 men and women are employed full time as Green Ambassadors.

PepsiCo India Region covers the initial operating shortfall, sponsors staff training and uniforms, awareness promotion, construction of the vermicompost shed, the PMU, consultancy fee to EGP, and rent for the land for the vermicompost shed and dumpsite. PepsiCo's sponsorship covers approximately 50 percent of the service's recurring expenses.



House-to-house waste collection and the removal of street bins have eliminated litter and the open burning of garbage in participating neighborhoods.

Through EGP's Green Generation programme students learn about the hazards of pollution and the importance of conservation, recycling and sanitation.

Panipat's neighborhood parks that previously were badly littered have been transformed into beautifully landscaped green areas for recreation and relaxation.





RESIDENTS' IMPRESSIONS



Mrs. Saroj Rani, 664 New Divan Nagar, Panipat

The previous system of waste collection was not good. The collectors troubled us, and came irregularly. Now the door-to-door collection by Green Ambassadors keeps our street clean. There are many benefits for us.



Mr. Satish Guglani, 576 Model Town, Panipat

Our waste used to be dumped in low areas and people threw garbage in our park. Now our quality of life has been improved, we are more healthy, and our park is clean and beautiful. Now people are smiling.



Mr. Harjinder Singh Dilawari, 326 Model Town, Panipat

Now residents are more healthy, so we have less medical expenses. The residents are very happy and appreciate this greatly.



Mrs. Nitu Jha, 290 A. Shanti Nagar, Panipat

Door-to-door collection of waste from our home is punctual. The collectors don't take leave, and now the street is very clean.



Mrs. Sakshi, New Divan Nagar, Panipat

Before, the road was very dirty and the drains were clogged. Now everything is always clean. The Green Ambassador has a good attitude and collects our waste from our gate even if we are not at home.



Mr. Rajiv Sariin, 328L Model Town, Panipat

Door-to-door collection of waste has made our street very clean. I purchase and use the compost that is made from our kitchen waste, and it beautifies my houseplants. We also use the compost in our neighborhood park.



**AAA-rated
Green Business
Certification**

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