

Managing Waste



All the waste we produce doesn't just disappear. It has to go somewhere. It gets transformed into gases that we breathe, becomes a part of the water we drink, or the food we eat. This is why it is so important for us to be responsible about our waste. Do you know what happens to your waste and where it ultimately lands up? Let's find out.

Collecting Waste

The Municipal Corporation of Delhi (MCD), services 95 per cent of the city. The New Delhi Municipal Corporation (NDMC) and the Delhi Cantonment Board (DCB) service the remaining area equally. Not only is the area under MCD the largest, it also has to cater to the higher densities of population. And as we already know, more people means more waste!

Journey of waste from bins to landfills: The first step of the collection process is the domestic helper who takes our *kachra* to the waste bin or the *dallow*. The waste lies in bins, raising a stink and waiting for the elusive MCD garbage truck to arrive. Meanwhile it is attended to by rats, dogs, cats, cows and the ragpickers.

The truck, when it comes, is loaded manually by MCD *safai karamcharis*. In the process, a lot of waste is strewn around. The workers themselves do not wear any protective gear and face a serious health hazard. On an average, only 60 per cent of the waste gets picked up every day.

Sanitary landfill: In Delhi, about 98 per cent of the garbage is disposed of in landfill sites at Gazipur, Bhalaswa and Okhla. These sites are filling up fast and will not last beyond the current decade. New sites are being planned at

Tajpur, Jaitpur, Goeshalla, and near village Sultanpur and village Deoral. Ideally, a landfill should be lined to check leaks that pollute underground water and can contaminate the soil. However, none of the landfills in Delhi are either lined or have provision for gas recovery. They are unscientifically managed.

Composting: Garbage processing has never been a priority with the MCD. It currently operates two waste composting plants at Okhla and Bhalaswa to convert organic waste into manure. The Okhla plant does not function to its full capacity. The plant at Bhalaswa converts 500 tonnes of garbage into manure every day. Other methods like incineration, vermicomposting, biomethanation and fuel pelletisation are not practiced in Delhi.

It is now becoming clear that only centralised systems of waste management are not enough to control waste. Experience over the past few years has shown that community-led initiatives help decentralise waste management, and make it sustainable at local levels. If the goal is that of setting up a better waste management system, the community, after identifying the problem, would help evolve a system that is best suited to its needs. The end result should be a system that is not dependent on the municipality or any other official body. However, there needs to be an interface between the community project and the local municipality. It also requires that the people within the community are responsible and have a better understanding of the problems and related issues. Such community projects can be a model for environment-friendly waste management initiatives.

Problems With MCD's Waste Management

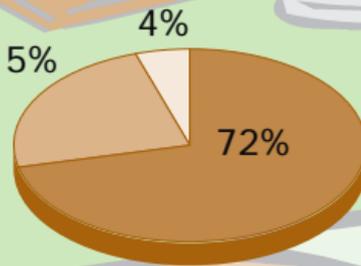
- The design of the *dallows* is faulty as they are unsuitable for mechanical cleaning.
- Absenteeism of cleaning staff is as high as 40 per cent.
- There is no formal system or any office space where the cleaning staff can report. They do not even have a separate place to keep their equipment.
- There is always a shortage of vehicles, and as a result, in some zones each truck has to make a number of trips to clear the waste.

The Economics Of Waste Management

Even though we treat our waste as garbage to be thrown away carelessly, it requires money to collect and treat the waste that we dispose of. Our modern waste management systems are essentially centralised. In such a system, waste collection, segregation, transportation and disposal is the responsibility of a municipal corporation. Such a system is not only cost-intensive but also requires large manpower. The MCD spends more than Rs 150 crore on waste management and employs more than 30,000 people annually. About 70 per cent of the waste management budget of Indian municipalities is spent on collection, 25 per cent on transportation and only 5 per cent on disposal. Final disposal in a city like Ahmedabad accounts for just 1 per cent of the budget.

Distribution of expenditure on waste

■ Collection ■ Transportation ■ Disposal



Waste management depends upon the budgetary support from the respective state governments. It is not a revenue generation activity. In Delhi the MCD earned a meagre Rs 85 lakh (0.55 per cent of its total budget) from fees and fines.

We cannot really always blame the municipality for not managing our waste. It is our waste they are handling – we need to take care of it and manage its sustainability. There are options available to us that may offer cheaper and more viable alternatives, both in terms of money and manpower. A centralised system also suffers from the fact that there is no sense of ownership to it. The citizens do not have any sense of responsibility. Since they do not pay anything to have their waste collected, the municipality also suffers from inefficiencies.

Individuals living in communities can manage their waste

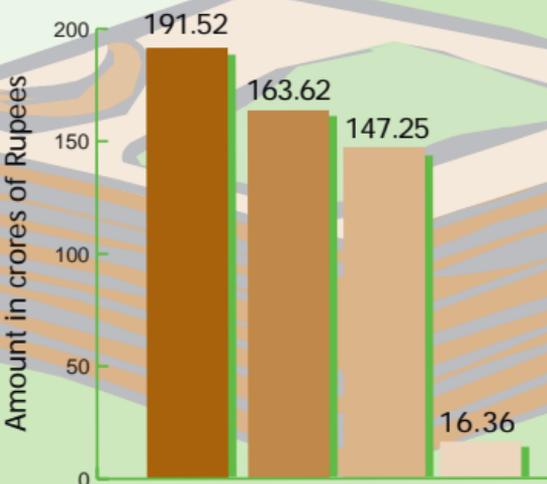
far better. Such a decentralised system can be both sustainable and viable. If we were to take the example of a colony that wants to manage its waste itself; what will be the costs involved? It will entail small amounts of collection charges that would be paid to the local ragpicker or waste collector. There would be practically no recurring transport costs as all biodegradable waste would be composted at the site itself and recyclables would be segregated and sold to waste dealers (*kabadiwalas*). The people living in the community would finance the salaries and other charges such as maintenance of the compost pits. The sold compost and recyclable material would help pay for the costs incurred.

A decentralised system may also help in other long-term gains. Such a system prevents waste going to landfills; contributing to waste reduction and reducing the hazards of landfills (*see handout on landfills*). Community managed systems also relieve the municipality of the burden and may make resources available for other public utilities such as transport and water supply. A decentralised system, however, does need an interface between the municipality and community as it is the municipality that will provide space for segregation and composting.

As the graph below shows, the amount spent on waste management is very small compared to the salaries paid and the budget for waste management.

Waste-related expenditure of MCD (1988-89)

- Public health and sanitation
- Budget for waste management, etc
- Salaries and allowances
- Amount spent on waste management





Meet Me: I Am The Ragpicker

You must have seen me often as you go to your school. While you have

school bags in which you carry books, I carry a bag loaded with rubbish. But don't underestimate my bag. With its help, my friends and I save the government up to Rs 14 crore every year!

Most people sneer at us and turn up their noses as if we were made of rubbish ourselves. Others look away or look through us as if we just didn't exist. But I exist. I am very much a part of your society. I carry the rubbish which people throw away so carelessly. I carefully sort all the rubbish and collect all kinds of recyclable items – plastics, metals, cans, glass and paper – and sell it to *kabadiwalas*.

Why do I do it? Well, it is not a matter of choice for me. It is a matter of survival. I make a mere Rs 20 to 25 every day in which I have to take care of my sister. Most of my friends are very, very poor. Some do not have parents, and

Waste pickers save the municipal authorities 24 per cent of their expenses by removing waste from the waste stream. A host of industries receive raw material collected by waste pickers, who thus contribute to saving resources.

others add to the income of their parents by scavenging. You must think of scavenging as a lowly task. If you do, you are not the only one. I get mistreated by the police. They catch me every now and then over false accusations of theft. Then they slap me hard or demand money. Municipal sweepers

Rags

In Delhi there are an estimated 100,000 ragpickers who take away approximately 10-15 per cent of the waste. They reduce the work of the municipality by sorting and collecting recyclable items such as plastic bags, metal cans, wires, paper and plastic items, which they sell to the local *kabaadiwala*. The *kabaadiwalas* sell this waste to the various recycling units in the city.

abuse me because they want money too. They force us to do their work to allow us to collect material from municipal bins. Whom should I complain to for my troubles and for stealing my childhood?

That is not the end of my woes. It seems to me that everything is designed to work against us. Since I work amongst rubbish, I often get cut by sharp objects. I don't have any money for medicines, so my wounds get infected. In the summers, I get nosebleeds due to staying out in the sun for long hours. And because I have to constantly bend down, I suffer from back pains. Sometimes I also get sick due to strange chemicals in some waste dumps.

I often think, if people can throw so much waste, why can't they respect the people who take care of that waste?

I have to wake up at four o'clock in the morning so I can get the best of the waste. The days that I oversleep I find that others have beaten me to the rubbish. Those days I have to travel far to make up for the lost time. I might cover up to 20 kilometres in a day to find waste that is useful.

Your waste is my source of survival. I collect about 5 to 7 kg of waste every day, though the older boys and the men collect about 10-15 kg daily.

Then I sit down and sort the waste into separate categories and sell it. On good days I may make a maximum of Rs 40 to 50. But this is not a life I enjoy. Amongst ourselves we know that "once a ragpicker, always a ragpicker". Many ragpickers I know have tried their hands at selling vegetables or opening small shops. But they all fail because of various problems. There are no easy options for me. My life is on the streets. And that is where you and I will meet – amongst your waste.

I do not need your pity. I just need a clean sustainable livelihood.