

LIFE IN WASTE

The sun's rays peeps through the curtains in a cosy room, surrounded by the choicest of furnitures, except the few irregularities that have become habitual owing to constant and consistent living. And so morning begins, with a friendly hot cup of tea, toasted bread, boiled eggs, or even tasty, sumptuous paranthas smelling of ghee, and of course of mother's hands. Then starts a day, a busy day, a day of commitments through competition, of complexities and contradictions- a day that at the end is a fulfilling day. A successful day- that brings sleep, a restful, and yet sometimes difficult.

All that's beautiful, bereft of any bruises or blemishes. Far from the stench and smoke that stretches the lives of those 'few others' whom we choose to ignore, whom we choose to push behind, look ahead of, and make invisible.

Riding in our sleek and suave cars, when we rush through the city streets, and look high up to the changing moods of the sky, or the towering malls, splashing all over, busy in our own world of comparisons, awaiting an increase in the salary, a precipitation of appreciation, of commitments to fulfill, of appointments to keep, wondering about the future, and sometimes, even of love....we do not get to see the people busy amidst the dirt and dust of garbage dumps. Behind closed windows, with the cool AC, fighting the heat and hassles, and at times calming soared tempers, we do not get even a faint idea of what 'they' do. It is for granted- something that is expected from them. But alas, it is 'they' who carry day in and day out, the misery of those expectations. It is their responsibility, that answers their hunger, and shelters their weariness. For truly they are weary.

However, this responsibility actually helps the environment, by clearing and cleaning all that the busy, important city leaves over. Enduring through pieces of metal and glass, tonnes of plastic bags, sharp-edged tins, soggy cardboards, shreds of cloth and so much more of this grotesque heap of waste, the rag pickers, who constitute a population of 1,50,000 in Delhi (most coming from West Bengal, Bihar and Uttar Pradesh. Many from Bengal's East Midnapore, Nadia and Murshidabad districts are Muslims), with their bare hands, struggle through the rubble with amazing dexterity, everyday. Their job knows no bonuses, no promotions, no perks and not even appreciation, as they rummage through the waste.

They get a different price for different items, each item categorized, the statistics being:

- Glass is worth Re 1 per kg
- Tin goes for double the amount
- Iron bars fetch Rs 7 per kilo
- The value of plastic varies from Re 1 to Rs 16 per kg depending on its colour and quality
- Cola cans sell for Rs 45 per kg

- Even pieces of fungus-filled bread are sun-dried and sold for Rs 2 per kilo as animal fodder

Selling these to mobile kabaris known as thiawalas or a small kabari who could be part of their group, a waste picker makes between Rs 75 and Rs 150 per day. In return, the big kabaris buy these items from small kabaris and sell them to the recycler.

It is ironical, how in return for such frugal amounts of money, they are facilitating recycling, in a way. This is how.

NGO Chintan estimates that Delhi generates about 8,000 metric tonnes of waste everyday. Moreover, both biodegradable and non-biodegradable matter should be segregated before being sent off to the dumps, according to the Plastic Bags and Non-Biodegradable Garbage Control Act 2001. But unfortunately, this is hardly ever done.

And this is where every waste picker plays a crucial mediating role. After the MCD dumps the apparently insurmountable rubbish, the ragpickers pick up between 50-60 kg of waste everyday. Each helps recycle between 1,500-1,800 kg of waste every month. Since the MCD pays taxpayers' money to private contractors for lifting and transporting garbage, ragpickers reduce their workload. NGOs estimate that their effort saves the MCD about Rs 6 lakh every day.

For the rag pickers, life is spent amidst germs and susceptibility to diseases, lung infections, burnt waste, and also a life that is trapped in the fumes of ever reducing chances of living a clean, protected life. According to a Chintan study conducted in 2001-02, blood tests showed that 59 per cent children, 42 per cent women and 61 per cent men had high eosinophil count that causes breathlessness and indicates they are suffering from allergies.

Another study on Delhi's wastepickers by Kolkata's Chittaranjan National Cancer Institute showed them hugely susceptible to lung infections. Some are also addicted to drugs.

However the biggest problem for the rag pickers is the police. NGO worker Anand Mishra says, "They have identity cards. But that doesn't stop the police from picking them up on charges of being illegal migrants from Bangladesh. They must pay up to be released."

Those who walk through the piles that we keep ourselves far from, are the ones whose efforts give us a protected environment; they know no seasons, and perhaps not even the reason, but they relentlessly help the environment to recover from the mistakes that we unknowingly, and ignorantly commit.

At the end of each day, when we go back to our soft beds in the embrace of our dreams, happy in togetherness, on the other side of the town, lies another bed on footpaths, in a place called home, where sleep that comes without an effort, shadows the unspoken

dreams of those 'few others' who await another morning much the same as in years before.

A FEW FACTS TO REMEMBER:

QUESTION: What is 'biodegradation'?

ANSWER: **Biodegradation** is the process by which [organic](#) substances are [broken down](#) by the enzymes produced by living organisms.

Biodegradable matter is generally organic material such as plant and animal matter and other substances originating from living organisms, or artificial materials that are similar enough to plant and animal matter to be put to use by microorganisms. Some microorganisms have the astonishing, naturally occurring, microbial catabolic diversity to degrade, transform or accumulate a huge range of compounds including hydrocarbons (e.g. oil), polychlorinated biphenyls (PCBs), polyaromatic hydrocarbons (PAHs), pharmaceutical substances, radionuclides and metals. Major methodological breakthroughs in microbial biodegradation have enabled detailed genomic, metagenomic, proteomic, bioinformatic and other high-throughput analyses of environmentally relevant microorganisms providing unprecedented insights into key biodegradative pathways and the ability of microorganisms to adapt to changing environmental conditions.

(Source: <http://en.wikipedia.org/wiki/Biodegradable>)

OTHER FACTS:

In order for a product to be classified as a biodegradable product, it must be able to be broken down into its constituent natural elements and be absorbed by the environment.

Real biodegradable material will often break down into:

- Simple organisms
- Carbon
- Hydrogen
- Bacteria
- Fungi
- Oxygen - Carbon dioxide Co₂ and water H₂O

Because a product is advertised as biodegradable, and may eventually break down into natural elements, it doesn't necessarily mean that it is good for the environment.

Some of them break down into natural elements which may be harmful to the health of both flora and fauna alike. One such element is nonylphenoethoxylate otherwise known as NDE which is a constituent part of many cleaning supplies we use today. The natural elements that make up NDE include carbon, hydrogen as well as oxygen, and so most people assume that when it is broken down it should break down into these same

elements. However this is not the case, NDE actually breaks down to become a harmful benzene compound that is damaging to female reproductive organs.

How Long It Takes Is another Factor

Something else that is of importance and considerable concern is the period that a product takes to break down into its constituent parts. Something like a loaf of bread is totally biodegradable. It can actually break down into simple sugars in a mere matter of days. Paper on the other hand may take up to 5 months to degrade into its proper constituent elements.

One other problem is the disposal methods that are used to get rid of the products we wish to dispose of. A natural compost pile makes it easy for normal food to degrade easily. If waste on the other hand is placed among other forms of garbage natural and unnatural alike, it may take months to or even years to decompose. Researchers have found apple cores that were more than two decades old in garbage landfills. If you seek out better ways to dispose of biodegradable material, you can help speed up the degrading process and make the resultant products safer.

This is are average indicators of the period of time that it takes to breakdown a biodegradable product completely:

- Paper: 2-5 weeks
- Banana peel: 3-5 weeks
- Orange peels: 6 months
- Cotton rags 1-5 months
- Cigarette butts: 1-12 years
- Plastic or cardboard milk carton: 5 years

Contrary to those that return to their natural states over time, products that are man-made such as petrochemical products cannot be broken down by microorganisms into natural elements. And thus they will remain non-degradable and will continue to litter the earth for centuries to come.

(Source: <http://ezinearticles.com/?The-Facts-About-Biodegradable-Products&id=781685>)

(With research inputs)

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