

# THE JOURNEY OF OUR WASTE AND ITS EFFECTS ON THE ENVIRONMENT

Waste is any product thrown away. Every Product is thrown away, be it food, toys, clothes, etc. This is because of three reasons -

- The Product is broken.
- The Consumer does not want to use the Product.
- The Product is unfit for usage as it is potentially dangerous

For example, wood is cut and turned to paper, mixed with chemicals, printed on and filled with spices and once sold. Soon, the spice mix is used and the box is thrown away, then sent to a landfill, where it rots. However, this is only if waste is sent to a landfill, as recycling increases a product's life.

Observing our dustbin, we noticed that at homes, organic waste is most prevalent, which is collected from kitchens. Plastic is also very common, this can easily be replaced with jute, cotton, coir or paper bags. All of which are biodegradable. One option is making foods at home, which is even more feasible than buying packaged foods. For example, if one buys 5 small packets of packaged food every month, they spend around 50 rupees. Whereas, to make the same amount of chips, using a big russet potato, costs 21 rupees. Most delivery services also have converted to using cardboard packaging. However it is almost impossible to avoid plastic. Moulded plastic can be used to store extra items and water bottles can be used as plant pots or one can recycle plastic.

We conducted an interview with my relative. When asked whether certain wastes were avoidable as in, we can live without creating them, he agreed organic waste was inevitable. However, Organic Waste also has an easy solution - composting it. We also discussed how to take one's own containers to stores. Many people are unaware of these solutions. However, consumers have enough knowledge to be aware about simple things such as avoiding plastic bags, composting and other hacks.

The interview -

[https://drive.google.com/file/d/1hd-L9l8GHlflxAKgnu6j7kxy\\_OCMJavY/view?usp=sharing](https://drive.google.com/file/d/1hd-L9l8GHlflxAKgnu6j7kxy_OCMJavY/view?usp=sharing)

South Asia produced 344 Million Tonnes of Solid Waste<sup>1</sup>! Factors such as population, urbanisation, illiteracy, natural or political damage (tsunamis, wars, riots, etc.) and income. These factors affect the amount of products created to sustain populations, knowledge to apply modern recycling methods, and destruction caused by disasters, producing waste. The Ministry of Environment, Forests and Climate Change (MoEF&CC) states around 70% Municipal Solid Waste is collected, 20% is treated and lastly 50% is thrown in a landfill. This leaves 30% of our waste unaccounted for. Around 80% of our waste is not correctly disposed of. As for landfills, with an increasing amount of space, and no segregation, organic waste begins to compost, releasing methane and liquids. Methane is a highly combustible gas responsible for the Greenhouse effect, causing Global Warming. Pressure breaks plastics down to microplastics. Amongst all this waste chemicals, may also leak from products such as lead, mercury and chromium. The run off water collects microplastics, rust and chemicals creating leachate, which makes land toxic and infertile. It can grow with plants and be eaten by animals, too. If the landfills are near a water source, the chemicals can dissolve in the water, These chemicals can also cause cancers, genetic diseases and miscarriages. All in all, it is clear landfills contribute to all sorts of pollution, and it is most surely going to affect us.

#### Bibliography

1. \*Silpa Kaza et al., *What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050* (Washington: World Bank Publications, 2018)\*

Household waste:

From research:

Source:

[http://harenvironment.gov.in/sites/default/files/documents/household\\_waste.pdf](http://harenvironment.gov.in/sites/default/files/documents/household_waste.pdf)

<b><u>Product</u></b>	<b><u>Percentage found in average domestic dustbin %</u></b>
Glass	10
Paper/cardboard	30
Metals	9
Textiles	3
Plastics	4
Vegetable waste	23
Dust, Cinders, Miscellaneous	21

- The most used dustbins in my home are the ones used to dispose of kitchen waste. In the kitchen dustbins the products disposed of are:
  - Edible Vegetable matter, including vegetable peels, stems, tops and roots, tea powder
  - Inedible vegetable matter, Coconut husks and shells, coffee powder, certain vegetable peels and tops (such as onion peels and tomato tops)
  - Plastic, from plastic covers and bags, the most often thrown away are from milk and curd packets, other plastics thrown away are plastic bags, usually from ordering groceries online

**What happens to a product to turn it into waste in a day?**

- Items turn into waste either from being unusable, not used, or just not wanted

**Why is it thrown into the bin, what does that signify?**

- If it is thrown into the bin it shows that the object in that instance is not wanted

**Think of, if not thrown, what would happen? Speak with your parent/sibling collect their thoughts**

- If not thrown food can rot, plastics cause litter and these can cause pests to be involved

**Research and note down what are the alternatives to reduce this waste?**

- You can make a stock with mixed vegetable peels. freeze them upon peeling till there's a sufficient amount (4 cups)
- You can use apple peels in smoothies
- Banana peels can be used by placing in boiling water (not still heating) for 1 hour till the banana peel is soft and the water will have cooled down, then with a fork it can be split into strips. Then it can be used in curries and other dishes. It is digestible and healthy as it contains many key nutrients such as potassium, dietary fiber, polyunsaturated fats and more.  
After eating a banana, put the banana peel in the freezer for use of multiple banana peels
- The best use for most vegetable peels and tops are in the dish that you are making. With the exception of some vegetables, their peels are edible and contain many nutrients. Vegetables such as carrot and potato are often peeled and the peels are thrown away, but the vegetable can be washed and used. I think that this is the best method as it is the easiest and least intrusive
- The most generally viable option is Composting as it can be done with most discarded food matter, including used coffee grounds

**Not food stuff**

- Plastic bags can be used multiple times, for multiple purposes. Such as trash can liners and general use as they are very easy transportable
- Milk packets are also very often used and account for a large majority of single use plastic waste in india. It's important to not cut off the end of the milk packet and instead leave it slightly attached as the small pieces from the end of the milk packet are harder to recycle as "Chances if missing such small pieces are high" when recycling and during transport. It's also important to keep plastic clean. This can be done simply by rinsing plastic products after use

Item in dustbin	What was this used for	Why did this turn into waste	Alternatives to reduce waste
<b>Vegetable peels</b>	Covering of the vegetable or fruit	Did not know a use or want to use the peel	Composting Vegetable Peels
<b>Plastic bags</b>	Used for transporting goods easily and conveniently	People only using it once	A paper single use bag or a reusable bag
<b>Plastic covers on food</b>	Containing food	Single usage, we cannot use it again after eating or	Making food at home, rather than buying it at the

		removing the food.	store.
<b>Coffee grounds</b>	Used for making coffeee	Outlived its use	Tea, as tea leaves are edible. The coffee grounds can also be composted

Sources: