

ST.GALLEN SYMPOSIUM

Global Essay Competition 2023

Title: Trash Talk - Why don't we claim ownership over our waste?

Essay:

Introduction:

Globally, waste generation by an individual during and post consumption of a product is considered seemingly innocuous. Consumer very casually buys the product, consumes the contents, and then mindlessly dumps it off in the nearest trash bins. There is no attachment between the consumer and the waste post consumption. The consumer feels completely detached from the waste they have generated and does not consider it their responsibility to ensure its correct disposal.

In this paper, I attempt to explore the underpinnings of this problem, starting with India and then looking at the world. This paper draws arguments from available data, research articles and any press coverage about these issues. It also stems from my own experiences of having experienced and dealt with this problem. I also attempt to provide some solutions to this bad legacy such that current generations are held accountable for their actions while enabling future generations to be more aware and mindful of the world they are entering.

The Context:

Waste disposal & management is an ever-increasing problem across many countries around the globe. Numerous efforts made by municipal corporations and local bodies to contain this menace fall short as mindless consumerism by the population takes over and negates these efforts. Waste management which was earlier considered basic human need and can now in light of current circumstances even be regarded as a 'basic human right'¹.

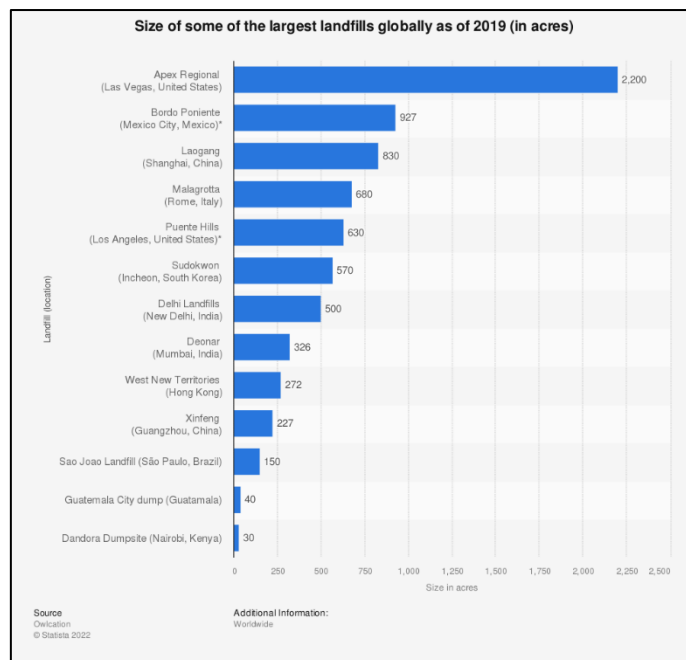
The Problem:

This issue has further exacerbated in case of landfills. In places like Mumbai, financial capital of India, landfills have been filled up to their brim. "All current and past generations have used up all the space in the landfill reserved for future generations. Now, there is no space available in landfill for future generations to park their waste". This major problematic legacy of not being responsible for your own waste and that somebody else; be it a municipal authority or government is responsible to handle your waste is flawed. Pre-consumption, we claim ownership over the product that we have paid for. Then why don't we claim ownership over the waste that is left after consumption?

Overview of waste generation in India:

In 2020-21, India generated solid waste to the tune of 160038.9 TPD (Tonnes per Day) out of which 152749.5 TPD of waste was collected². A significant portion of 79956.3 TPD (50%) of waste is treated and 29427.2 (18.4%) TPD is landfilled. 50655.4 TPD which is 31.7% of the total waste generated remains unaccounted. All figures correspond to an extremely high level of waste generated on a daily basis which needs to be handled by the municipal authorities and local bodies.

When there are no scientifically developed landfills available, often this waste is emptied in dumpsites. There are 3184 dumpsites in the country². In 2014, The World Atlas Partnership in its report mapped and profiled 50 biggest dumpsites in the world which included three Indian dumpsites in Mumbai (*Deonar*, 132 ha), Bengaluru (*Mandur*, 35 ha) and Delhi (*Ghazipur*, 30 ha)³. Dumpsites, as the name suggests are not designed to handle waste. Waste is just collected on a daily basis at the dumpsites. Dumpsites often are a breeding ground of insects and diseases, with the foul stench serving a big nuisance to the surrounding residents. It is also estimated that a population of about 9 million living in a distance of 10 km from these 3 dumpsites are at a potential risk of health hazard.³



(Image Source: <https://www.statista.com/statistics/530481/largest-dump-sites-worldwide/>)

These dumpsites do not have vents for release of greenhouse gases when the waste decays at the dumpsites. They also do not possess a bottom drainage network to collect leachate for treatment. These unscientifically managed dumping grounds pose a significant threat to the environment and the surrounding residents. Waste pickers venture into these dangerous dumpsites to salvage some waste material which they sell to the scrap dealers for a price. However, this is a risky venture as they run the risk of severely physically injuring themselves and inhaling poisonous gases.



(Image Source: <https://news.un.org/en/story/2019/12/1052551>)

A case in point is when in April 2007, the corrosive gases from the erstwhile dump which included hydrogen sulphide started affecting the functioning of the electrical system and appliances at Mindspace commercial complex in Malad, Mumbai⁴. In February 2016, the city of Mumbai was engulfed in a smog for a couple of days due to a raging fire created by some miscreants at the Deonar dumpsite. The fire and the resulting smog was so intense that NASA had released satellite images which showed Mumbai and some surrounding coastal areas of Maharashtra engulfed in smog⁵.



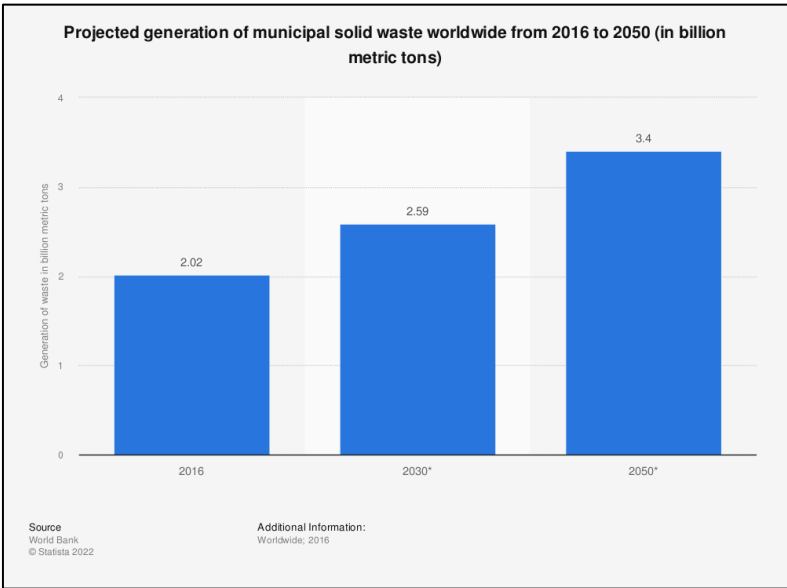
Image courtesy: NASA

In India, informal network of waste pickers and *kabadiwalla* (small and big scrap dealers and aggregators) play a significant role in collection of waste and recovery of recyclable material which prevents at least 15 percent of municipal solid waste from going into landfills³.

Another issue that arises is segregation at source. It is expected of citizens to segregate the waste they generate into dry and wet waste. Another way of segregating waste is biodegradable and non-biodegradable waste. However, even after repeated regulations issued by the municipal authorities, segregation at source remains a big challenge. Citizens are not inclined to segregate their waste which leads to increased burden on the authorities for segregation. Moreover, this also leads to increased amount of mixed waste reaching the authorities which becomes difficult to segregate at the secondary centres. This behavioural change has to be brought about amongst all citizens on war footing to stem this problem.

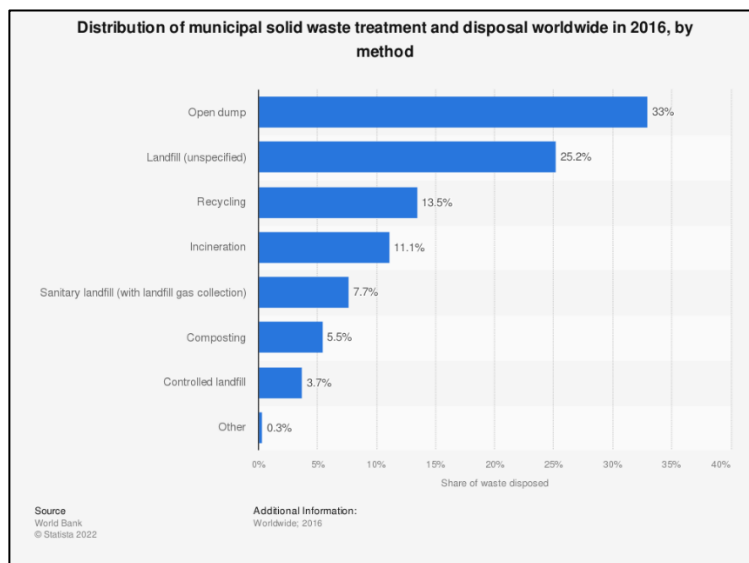
Overview of Waste Generation around the World:

The issue of excess waste generation and ineffective waste segregation and management does not only affect India. It is a ubiquitous problem across many countries of the world. Around the world, waste generation is rising. In 2020, the world generated an estimate of 2.24 billion tonnes of waste, amounting to a footprint of 0.79 kilograms per person per day. With increasing population, rising consumerism and urbanization, annual waste generation is expected to increase by 73% to 3.88 billion tonnes in 2050⁶.



(Image Source: <https://www.statista.com/statistics/916625/global-generation-of-municipal-solid-waste-forecast/>)

This problem is even more pronounced in low-income countries, where about 90% of waste is disposed in unregulated dumps or openly burned⁶.



(Image Source: <https://www.statista.com/statistics/916682/global-municipal-solid-waste-treatment-by-method/>)

As per the Global Waste Management Outlook (GWMO) published by the United Nations Environment Programme (UNEP), the case of sound waste management has transitioned from being merely desirable to an absolute necessity¹.

Possible Solutions:

Early Intervention in Education:

It is common knowledge that habits formed in the childhood are often the strongest. It is high time that we build awareness about waste segregation, management and ownership at a very young age. It can be made part of the curriculum in addition to the environmental sciences and value education subjects taught in kindergarten and primary school. Children can be taught using visual cues like putting dry waste (Ex: Chocolate wrappers) in a yellow bin and wet waste (Ex: Fruit peels) in a red bin, etc. This knowledge then incrementally builds to create firm habits which the children will carry while they are growing up and into their adulthood. Young climate activists like Greta Thunberg and Licypriya Kangujam have shown that age is just a number and that knowledge coupled with a drive to save the world and build awareness can play a vital role in bringing a revolution.

Develop waste management frameworks:

The municipal corporations should develop frameworks so that it becomes easier for citizens to follow the guidelines and procedures. The corporation can make available separate bins or bags for the different categories of waste so that citizens are encouraged to segregate waste. The corporation can directly link households and industries to recycling organisations so that the recyclable waste directly flows to the recyclers. Public-private partnership can also be encouraged. Private sector can help in developing innovative solutions to this ever increasing problem.

Zero Waste to Landfill Campus:

Empower and enable all organizations/institutions to deal with their own waste end to end. Help institute establish partnerships with recyclers and composting units. Make individual organizations/institutions accountable for dealing with their own waste. This will automatically motivate them to develop innovative solutions to deal with their own waste. This will also ensure segregation at source as it is pre-requisite before recycling. This can first start with educational institutions and then the idea can propagate to all other kinds of institutions. The Association to Advance Collegiate Schools of Business (AACSB) is now continuously exhorting business schools to integrate sustainability into their curricula⁷. It is now also asking poignant questions about the social impact of these institutions and increase their role beyond the four walls of the institute and demonstrate its responsibility towards society.

Carrot & Stick Policy:

It is high time that a carrot and stick policy needs to be instituted by governments around the world with regards to waste segregation and management. So far, in many regions of the world, the law provisions are very lax when the rules are not followed. However, it is necessary to strictly reprimand any inappropriate behaviour in this regard. Citizens not obeying the rules need to be fined while those following the guidelines need to be commensurately recognised and rewarded for their conscientiousness. This can set a model example for others. Case in point is how San Francisco decided in 2002 to send zero waste to landfills by 2020. Through strict regulations and citizen participation helped them achieve nearly 80 per cent waste diversion by 2012⁸.

Waste Tax:

Governments can consider levying a waste tax on households or individuals. Just like income tax slabs, there should be a maximum threshold limit of waste per individual above which individuals need to be taxed for the waste they generate. This will act as a deterrent to mindless consumption of resources just because one can afford to do so. This will also motivate citizens to align with the guidelines while minimising their waste footprint. This will also motivate them to find alternatives to dumping like recycling or composting. This can then be linked to other government related transactions like voting rights, income tax returns, etc. which will also serve as a good remembrance to the citizens from time to time.

Waste Credit Score:

Usually, we have a score linked to our credit performance which is a determination of discipline in behaviour with respect to financial transactions. Why not we link behaviour linked to waste segregation and management also to a credit score? Just like a credit score, a waste credit score will increase if you follow the guidelines and rules set by the municipal authority and decrease otherwise. This waste credit score can then have benefits like relief in house tax, water tax or fast-tracking of some mandatory permissions.

Make Waste Management a mandatory Election Manifesto Point:

Elections are sometimes the only time that elected representatives come to citizens willingly, to rally for votes. Election manifestoes of political leaders usually include points and promises related to jobs, economy, education, etc. The Election Commissions of the respective countries can make it mandatory for all candidates to include point related to waste disposal and management in their manifestoes. This will ensure addressing the core concerns of this issue while also establishing proper accountability on our elected representatives to develop and implement solutions to solve this important issue. Elected representatives can also be asked to allocate a specific fund towards mitigating this problem.

Conclusion:

To address this intergenerational conflict of sustainable waste management, it is important for all stakeholders to take cognizance of this pertinent problem. The bad and unsustainable legacy of improper waste disposal created by current generations cannot be continued as is. The current generations can no longer absolve themselves of the responsibility of dealing with their own waste. We should develop frameworks which facilitate and motivate citizens to ensure proper waste management and disposal. The 3R's referring to Reduce, Reuse and Recycle need to be actually institutionalized to see the desired results.

Different generations, current and future will have to work collaboratively to solve this issue. Current generation needs to accept this mantle of responsibility of taking the first step to help make this a more fair, equitable and inclusive society. The future generation can then take this work forward thus ensuring true sustainable development.

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