Recently, the East Delhi Municipal Corporation (EDMC) obtained the nod of the Central Pollution Control Board (CPCB) for **two new landfills in the Yamuna river zone**, or the 'O' zone of the Masterplan for Delhi. Any activity on the 'O' zone would mean building on the fragile Yamuna floodplains. Is this good for Delhi, or will it cause further harm?



It is well known from scientific studies across India and internationally that there is no landfill that does not finally leak. Infact, various studies across India show that from Delhi's Ghazipur in Delhi to Pallavaram in Chennai, each one has irreversibly poisoned the ground water as the leachate from the waste goes into ground water. The toxins include heavy metals such as cadmium and nickel. A study conducted by Jawaharlal Nehru University's Department of Environment conducted between 2012 and 2013 revealed that the ground soil of the area harbored organic pollutants exceeding the permissible limits by up to 158 times. These enter the food chain leading to hormone disruption, reproductive disorders, learning disabilities, heart diseases, diabetes and cancer. In 3 landfills/dumps in Erode, the water was contaminated by high levels of iron, zinc, lead and ammonia salts. Moreover, as a study of leachate samples in Thrissur (2014) has shown, the present biological contaminants were well above the permissible levels. These can be expected to contaminate the underground water and other water sources irreversibly.

Indians depend on either river or underground water for drinking. The country's scientific establishment has shown beyond doubt that India's landfills are poisoning all forms of water and soil.

Not only this, but as wet waste reaches landfills, it emits the highly combustible methane, which causes fire, with the residual plastic in the landfill adding fuel. As a result of this, both Delhi's active landfills are always partially on fire. **This exacerbates the severe air pollution condition.**



The leachate from this new landfill will also poison the Yamuna, which will severely impact not only Delhiites, whose only source of drinking water is the river, but millions of Indians downstream. It will also add to the **environmental burden of the city**, already strained to its limits. International experience shows that even if it is built to global standards, it will eventually contaminate water irreversibly. This apart, the **rich biodiversity of the river will be impacted by such toxic exposure.** This landfill will inevitably harm not only Delhi but millions downstream.

What can be done instead?

Here are a few ideas for the East Delhi Municipal Corporation:

- · Mandatory composting or bio-methanation of wet waste by all bulk generators such as hotels, vegetable markets, residential areas and institutes of all manners, including hospitals. No wet or horticulture waste should be picked up from any of these premises.
- · Where required, the EDMC should seek financial support for lower and middle income community subsidy for infrastructure and 3 months running costs
- · All wards must have at least 1 Material Recovery Facility which must include both composting and dry waste recovery facilities. This must be run by local wastepickers.
- All wastepickers must be identified and trained.
- · All dry waste that can be recycled should be retained by wastepickers and other existing actors
- Non-recyclable dry waste must be firstly, handled via the Extended Producer Responsibility (EPR) mode, where manufacturers pay for disposal, including through containment such as blocks, laminates etc.
- The city of Delhi must overall create a waste reduction policy to ensure all one time use plastics and laminates are phased out within a year, and non-recyclable waste be phased out and replaced within 2 years. The onus should be on the brand owner.

Currently, the EDMC generates approximately 2600 MT. Of this, the wet waste is 1300 MT, the dry waste 800MT and inert waste about 520 MT. It is only the last that requires landfilling. In this scenario, no new landfills are needed. Instead, the city must focus on public health and well-being.



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