
GUIDELINES TO IMPROVE LANDFILL SITES

DEVELOPED BY: SUB NATIONAL GOVERNANCE PROGRAM

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Guidelines/Instructions for Improvement and Waste Reduction at Landfill Site

Solid waste conversion efficiency in Pakistan is limited, and solid waste operations lack segregation of waste at source. This results in high volumes of waste being dumped in landfill. Landfills are a major source of harmful methane (CH₄) and carbon dioxide (CO₂) that are released into the air when waste breaks down, contributing to climate change.

Dumping unsegregated green waste into landfill sites generates leachate which exposes the local population to unsafe toxins and odour. The practice of dropping all types of waste in landfill reducing the operational lifespan of landfill sites, resulting in additional costs for the TMA/WSSC.

To address these environmental and health concerns the following measures are proposed to mitigate pollution, preserve landfill sites, and safeguard the well-being of the local community.

1. Landfill should be at a sufficient distance from residential areas to minimise the potential impact on human health and well-being.
2. Choose a site with convenient access to transportation networks with availability of electricity.
3. Conduct an environmental impact assessment to evaluate the potential effects of the landfill on air and water quality, soil stability, and wildlife habitats
4. Plant trees alongside landfill to improve the environmental conditions.
5. TMA/WSSC to reduce waste dumping through a waste reduction strategy.
6. Ensure that waste is segregated into.
 - a. Green waste
 - b. Recyclables (including plastic, polythene, cardboard/paper, glass, cloth, hair etc.
 - c. Non-recyclables
7. If segregated waste is not collected at primary or secondary points, designate one or two central locations in each NC for waste segregation.
8. Waste segregation should be done by existing sanitary workers.
9. Segregated green waste is either.
 - a. Made available to farmers as animal feed (farmers can directly pick green waste from the segregation point)
 - b. Converted into compost (at landfill site by using static pile/vermicompost conversion technique).
10. Designate sufficient space within land fill sites for composting.
11. Recyclable items, such as plastic, polythene, cardboard/paper, glass, cloth, hair, etc., are to be segregated and sold directly to a third party, vendor, or scrap dealer. Alternatively, any convenient method for their sale should be adopted.
12. Where there is shortage of staff, to facilitate efficient waste segregation, it is recommended to authorize existing sanitation staff to spend extra time on waste segregation and sell recyclables and retain the proceeds from such sales. Municipality can also decide on profit sharing basis with sanitation staff. However, in such authorization ensure that collection, segregation and sale of low-value items, including polythene/plastic bags, plastic items, wrappers, etc., is efficiently done.
13. Recyclable items with less demand/limited buyer in the district must be collected, segregated, and stored at transfer stations or any suitable designated location by the

TMA/WSSC from where it can be transported in-bulk to the purchasers out of the district.

14. Dispose only non-reusable, non-recyclable, and non-green waste at landfill sites.
15. Cover the waste with a layer of soil or other materials daily to reduce odours and deter pests.
16. Construct temporary drain/liners to collect leachate and to prevent the contamination of groundwater.
17. Leachate collected from green waste should be provided to local farmers as liquid manure.
18. Establish formal partnership with scavenger community to support the waste collection and segregation if required.
19. Scavenging at dump/landfill site should be either prohibited at all or permission only be granted to registered scavengers.