

# Recycling 101 Handbook: Managing Solid Waste in Pakistan

## 1. The Solid Waste Crisis

Pakistan generates over 30 million tons of solid waste annually, a figure that grows in tandem with urbanization and population expansion. The vast majority of this waste is unceremoniously dumped into open, unlined municipal landfills or vacant lots. The open burning of this trash is a major contributor to the severe smog and air pollution crisis affecting cities like Lahore and Faisalabad during the winter. Recycling at the household level is a critical intervention to reduce landfill burden, conserve natural resources, and mitigate toxic emissions.

## 2. The Golden Rule: Segregation at Source

The entire recycling process breaks down when waste is mixed. If wet, organic kitchen waste soils dry recyclables like paper, cardboard, and certain plastics, those dry items lose their value and become unrecyclable. Effective waste management demands a strict 'Segregation at Source' policy within the household. Implement a simple two-bin system:

- Green Bin (Wet Waste): Dedicated solely to biodegradable organic matter—food scraps, fruit and vegetable peels, tea leaves, and eggshells. This waste is ideal for home composting.
- Blue/Black Bin (Dry Waste): Reserved for clean, dry recyclables, including plastic bottles, paper, flattened cardboard boxes, glass jars, and metal cans.

## 3. The Role of the Informal Recycling Sector

While formal municipal recycling infrastructure is limited in Pakistan, the country possesses a highly efficient, informal recycling network driven by scrap dealers, commonly known as 'Kabadiwalas'. These individuals traverse neighborhoods purchasing specific recyclable materials. By collecting and segregating your clean PET bottles, glass, aluminum, and old newspapers, and selling them to these dealers, you ensure that the materials re-enter the manufacturing supply chain. Furthermore, this practice directly supports the livelihoods of

thousands of marginalized workers in the informal economy.

## 4. Understanding Plastic Types

Not all plastics are created equal when it comes to recyclability.

- Highly Recyclable: Hard plastics such as PET (Type 1, typically clear water and soda bottles) and HDPE (Type 2, opaque milk jugs and shampoo bottles) are easily recycled and highly valued by scrap dealers.
- Non-Recyclable/Problematic: Single-use polythene shopping bags, polystyrene foam (Styrofoam), and multi-layered packaging (like chips wrappers and tetra packs) are incredibly difficult to recycle. Despite regional bans, polythene bags remain ubiquitous. Citizens must actively refuse these items, opting instead for reusable cloth or jute bags.

## 5. Managing E-Waste Responsibly

Electronic waste (e-waste)—including outdated smartphones, dead batteries, broken laptops, and obsolete household appliances—poses a severe environmental hazard. E-waste contains toxic heavy metals such as lead, mercury, cadmium, and arsenic. When thrown into general municipal trash, these toxins inevitably leach into the soil and contaminate groundwater reserves. E-waste must be managed carefully. Look for specialized e-waste recycling drives initiated by environmental NGOs, or hand old electronics over to local repair shops that can safely salvage working components and responsibly dispose of the hazardous parts.