

Hazardous trash going unchecked

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HOW many middle-class households in India segregate nail polish bottles, expired medicines, paint boxes, batteries and other such hazardous wastes while discarding them? Very few, if a survey conducted by Toxics Link, an environmental non-profit, is anything to go by.

More than 65 percent of the households surveyed by Toxics Link discarded hazardous biomedical waste together with regular waste, while more than 50 percent discarded fluorescent bulbs and tube lights without any precaution. The list goes on, and becomes more grim.

Hazardous domestic waste (HDW) includes a wide variety of materials. Toxics Link divides them into two categories: household biomedical waste (medicines, syringes, sanitary napkins, blood sugar test kits, cotton swabs, bandages) and household toxic waste (CFLs, tube lights, cleaning products, disinfectants, paint containers, batteries).

Information was collected from 600 households in Delhi, Jaipur, Bhopal and Ranchi. A survey was also conducted among waste workers in these cities as well as in Coimbatore to understand the handling practices and flow of hazardous waste after it has been discarded by households.

It was found that 90 percent of interviewed workers did not wear any form of personal protective equipment (PPE), exposing them to toxins and injuries. While workers collected some categories of HDW separately, they finally mixed them with other waste, revealing an acute lack of awareness.

The figure for HDW generated in India, it seems, is not known. Toxics Link says between 1,600 and 6,400 tonnes may not be getting segregated at source in a year. It is an approximation based on how much municipal solid waste (MSW) gets generated each year.

But with urbanization, a growing economy and more people in the middle class both MSW and HDW are expected to rise rapidly.

There is a significant threat to public health from HDW. Exposure to toxic emissions from waste items like cleaning agents, antibiotic resistance from biomedical waste such as expired medicines, used syringes and testing kits are only a fraction of the entire scope of risk.

There is also the threat of severe pollution when these toxins are released into the

environment. They become catalysts for resistant micro-organisms to develop, making infections more difficult to treat. Inadequate handling of such waste also contaminates the food we eat with severe pollution levels in both soil and water bodies. Landfill fires compromise human and animal health. All of these risks jeopardize our ecosystem at large.

Other findings of the study paint a similar picture. Seventy percent of households in Coimbatore discard biomedical waste with

This exposes both waste workers and the general public to needle stick injuries that can transmit serious diseases. Thirty-one percent of surveyed households admitted to instances of injuries while handling HDW, with Bhopal being the highest at 97 percent.

Even though the Solid Waste Management Rules, 2016 mandate source segregation of hazardous domestic waste, this is far from what really happens in most cities across the country, including the national capital. Despite the serious health risk, 13 percent of respondents in Delhi said they want to continue discarding biomedical waste with regular household waste. Challenges like the lack of compliance and weak enforcement continue to loom large. The survey also identified many regulatory and operational challenges such as inadequate infrastructure for HDW disposal, incomplete data on hazardous waste generation and lack of awareness about disposal protocol amongst the public.

In its last section, the study lists a few key recommendations based on these findings and stakeholder interactions. Some of them include:

- Policy enforcement: introducing municipal by-laws for HDW management and enforcing penalties
- Research and capacity building: working up a national inventory of HDW and organizing training programmes for local officials and workers
- Producer responsibility: ensuring producers bear the full costs of waste management and making labelling of hazardous household products mandatory

● Collection and disposal infrastructure: designating different days and vehicles (with separate compartments) for different types of household waste

● Public education and behaviour change: creating a sense of citizen ownership and responsibility through sensitization and awareness campaigns.

The study by Toxics Link highlights the pressing need for comprehensive strategies of hazardous domestic waste management across the nation. Addressing existing challenges requires a collective effort involving government agencies, waste management authorities, community organizations and the public. Organized efforts in the domains of segregation, disposal, laws, enforcement and public awareness can together help mitigate the immense risks that emanate from hazardous domestic waste. ■



Ninety percent of waste workers did not wear any personal protective equipment

More than 65 percent of the 600 households surveyed discarded hazardous biomedical waste along with their domestic waste.

regular household waste and what makes it more alarming is that 1.8 percent of households burn it. Around 19.2 percent of surveyed households admitted to discarding used needles or injections, especially in Ranchi and Bhopal (35 and 32 percent of households, respectively).