

## **Managing Domestic Hazardous Waste**

#### What is the issue?

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Beyond the conventional wet and dry waste management, it is now time that domestic hazardous waste is given enough attention too.

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#### What is domestic hazardous waste?

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- Domestic hazardous waste is defined under the Solid Waste Management Rules 2016.
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- It includes items such as -\n

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i. discarded cans of paint and pesticide

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- ii. sanitary waste such as disposable diapers and sanitary pads  $\gamman n$
- iii. items of biomedical waste such as expired or discarded medicines, broken mercury thermometers, used needles and syringes  $\n$
- iv. e-waste such as tube lights and CFL bulbs n
- v. items such as used batteries and button cells, all generated at the household level

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• With changing lifestyles, homes are awash with different chemicals and products.

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• These, often without us being aware, are corrosive, explosive, flammable or toxic.

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 They are harmful not only for human health but also for the environment if not disposed of properly.

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# How risky is lead?

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- Leftover paints and varnishes are examples of common polluting wastes in homes, with toxic heavy metals and flammable solvents.  $\n$
- Lead, a highly toxic metal, is found in lead-based paints to which young children are particularly vulnerable.
- As, even low levels of lead exposure can cause cognitive disabilities in children.

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- WHO lists lead exposure as one of the top 10 environmental health threats globally.
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- Many countries have phased out lead from their paints.  $\ensuremath{\sc vn}$
- India In 2016, India brought in a regulation which allowed a maximum of 90 ppm lead content in paints.
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- However, a latest study shows that concentration of lead in paints manufactured by small and medium enterprises in India remains very high.  $\n$
- Paint samples with as high as 199,345 ppm lead content, more than 2,000 times the maximum limit were found.  $\n$
- Worryingly, only 16% of the 160 consumers surveyed were aware of the issue of lead in paints.
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## What are the other dangerous ones?

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- Other examples of hazardous domestic waste are pesticides for mosquitoes, flies, cockroaches and rats.  $\n$
- These are as poisonous for humans as they are deadly for their targets.  $\ensuremath{\sc n}$
- Fungicides and garden herbicides are also very toxic, not only when used but also when disposed of. Many are also carcinogenic.
- About 2-3% of these liquids typically remain in supposedly empty containers.  $\n$
- Motor oils, greases and lubricants are all flammable but can be recovered as fuels when pooled.
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- Broken glass is also one of the most commonly dangerous domestic hazardous wastes.

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## What is the ambiguity in the rules?

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- There are enough rules for domestic hazardous waste with many overlaps in coverage for different types of waste.  $\n$
- Domestic hazardous waste comes under the ambit of Solid Waste Management (SWM) Rules 2016.
- Hazardous waste generated by industries and large offices is separately covered under the Hazardous Waste Rules 2016.
- Some biomedical waste is included in the definition of domestic hazardous waste.

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- But only waste from healthcare establishments is covered under the Bio-Medical Waste Management Rules 2016.
- Similarly E-waste Management Rules 2016 are applicable to e-waste including computers, printers, TV, fluorescent and other mercury containing lamps.

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• However, lead acid batteries from home inverters and cars come under

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Batteries (Management and Handling) Rules 2001.

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- So with multiple sets of rules and weak capacity for enforcement, the situation on the ground remains very bleak.  $\gamma_n$
- This is coupled with the fact that awareness of the hazard among those who generate and handle waste is almost non-existent.  $\n$

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#### What are the other concerns?

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• There are hardly any deposit centres for domestic hazardous waste, which are the bedrock for effective disposal.

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• The Biomedical Waste Management Rules 2016 require safe disposal of only healthcare waste.

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- Only 10-25% of biomedical waste is infectious or hazardous.  $\n$
- But, if not properly handled, it presents physical, chemical and microbiological risk to the general population as well as those who handle it.  $\n$
- Discarded hazardous medical waste leads to unintended release of drug resistant microorganisms in the environment.  $\n$
- According to the WHO, in 2016, 4,90,000 persons developed multi-drug resistant TB globally.  $\nglobally$
- Drug resistance is starting to complicate the fight against HIV and malaria, as well.

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- A WHO report also shows that there were 65,000 cases of multi drug-resistant and Rifampicin-resistant tuberculosis in India in 2017.  $\n$ 

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## What should be done?

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• Modern lifestyle comes with new responsibilities; that on waste management

calls for keeping three bins - dry, wet and hazardous.

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- A portion of responsibility for proper disposal of waste lies with consumers and waste generators as well.  $\n$
- But significantly, it is the responsibility of the municipal authorities under the SWM Rules 2016.  $\n$
- $\bullet$  They should collect hazardous waste quarterly or periodically, and/or set up deposit centres, where such waste can be dropped off by waste generators.  $\n$
- The authorities must also ensure safe storage of the waste and its transportation to the hazardous waste disposal facility.  $\n$

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#### **Source: Indian Express**

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