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 -
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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
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iii. items of biomedical waste such as expired or discarded medicines, broken mercury thermometers, used needles and syringes
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iv. e-waste such as tube lights and CFL bulbs
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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.
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- Lead, a highly toxic metal, is found in lead-based paints to which young children are particularly vulnerable.
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- 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.
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- **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.
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- Paint samples with as high as 199,345 ppm lead content, more than 2,000 times the maximum limit were found.
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- 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.
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- These are as poisonous for humans as they are deadly for their targets.
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- Fungicides and garden herbicides are also very toxic, not only when used but also when disposed of. Many are also carcinogenic.
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- About 2-3% of these liquids typically remain in supposedly empty containers.
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- 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.
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- Domestic hazardous waste comes under the ambit of Solid Waste Management (SWM) Rules 2016.
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- Hazardous waste generated by industries and large offices is separately covered under the Hazardous Waste Rules 2016.
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- 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.
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- 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 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.
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- This is coupled with the fact that awareness of the hazard among those who generate and handle waste is almost non-existent.
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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.
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- But, if not properly handled, it presents physical, chemical and microbiological risk to the general population as well as those who handle it.
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- Discarded hazardous medical waste leads to unintended release of drug resistant microorganisms in the environment.
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- According to the WHO, in 2016, 4,90,000 persons developed multi-drug resistant TB globally.
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- 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.
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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.
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- But significantly, it is the responsibility of the municipal authorities under the SWM Rules 2016.
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- They should collect hazardous waste quarterly or periodically, and/or set up deposit centres, where such waste can be dropped off by waste generators.
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- The authorities must also ensure safe storage of the waste and its transportation to the hazardous waste disposal facility.
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Source: Indian Express

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