

E-waste: The new, more dangerous plastic

Bengaluru is the largest e-waste producer in India after Mumbai and Delhi. Manvel Alur has a solution for safe disposal

ADITI PHADNIS

Seelampur, a resettlement colony in Delhi tells you what India is all about. All the mobile phones you exchange, the computer motherboards you sell to the *kabadiwalla*, the refrigerators that are beyond use, the air conditioners that you discard... a large part of these find their way to Seelampur, one of India's bigger informal e-waste recycling centres. Motherboards are dipped in sulphuric acid and silver and gold is extracted from them. Circuit boards are a rich source for copper — provided you melt them down in high heat. Other computer components yield lead — which is a rich haul because it has so many buyers, specifically, battery manufacturers. E-waste also yields a host of other precious metals like platinum and palladium.

All the young boys in the slums here are budding chemists. They cook, cool, hammer, melt and tease precious things out of waste. Sometimes there are accidents. Some things gently poison. Some things explode. Some things

catch fire. None of it is good for you — it is, in fact, noxious and utterly toxic. Little wonder then that a 2015 ASSOCHAM report said that about 76 per cent of e-waste workers in India have chronic respiratory ailments like breathing difficulties, irritation, coughing, choking and tremors and many get cancer. Given that over 95 per cent of the e-waste generated by India is treated and processed in the India's urban slums by untrained workers, the question is: how can this change?

The supply side of e-waste is represented by a steady stream of Indians holding one or more mobile phone, laptops and desktops. This will keep growing; as the government promotes digitisation and connectivity gets better. Treated properly, e-waste can be recycled or at least disposed of, safely. But, as ASSOCHAM notes, only around 1.5 per cent is recycled by formal recyclers or institutional processing and recycling. 8.0 per cent goes to landfills. The remaining 90.5 per cent of the e-waste is handled by the informal sector.

Manvel Alur, CEO of a Bengaluru-based NGO, Environmental Synergies in Development (ENSYDE), has two words that will solve the problem: CSR and formal recycling.

ENSYDE had installed 12 e-waste drop-off boxes in post offices and Bangalore One centres in the city. You could just drop off the electronic gadgets you did not need and they would dispose of them safely. They collected 4.4 tonnes of e-waste in 10 months, recovering 306 kg of metals and diverting 26.34 kg of toxic metals from landfills. Now they have set up e-waste bins. The bin has two openings, one at the top and the other at the bottom. The top opening can be used to discard e-waste that is bigger in size. The smaller discards can be dumped in the bottom.

Bengaluru is the third largest e-waste producer in India after Mumbai and Delhi. It generates 37,000 metric tonnes of electronic waste every year.

Alur, who has worked in the US and Europe with the private sector and institutions like the World Bank, realised that she and her NGO did not have the capacity to go house to house,



collect e-waste, trudge to formal recyclers and get them to put these machines beyond use. But companies could — and actually qualify to CSR treatment of the funds spent on this activity. This way the supply-side of e-waste could be monitored and safely neutralised. "We belong to a generation that doesn't believe in throwing anything away: we will try and get things repaired to use them again and again. But repair expertise is limited. And industry uses cheaper and cheaper housing for the computer, the mobile, etc because they want people to throw

away the old equipment and buy new things...bigger, better things. Most of us don't even know how we should discard these devices. We are running a sensitisation campaign to recycle this waste scientifically, and through formal systems" she told *Business Standard*. She says that if behaviour changes, so will the size of the problem.

Alur could have worked anywhere in the world: she has, in fact, done so. But India represents all the biggest problems because the scales are so huge. And she is among the Indians, trying to find solutions.

