

Managing E Waste in India

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Old computers, mobile phones, refrigerators, television sets, hard drives, printers, all need to be discarded at some point, when they have either been rendered obsolete, or have broken down beyond repair. The end-of-life of such products need proper systems of waste management. This is especially important since such devices contain over 50 types of hazardous materials which are released during their disposal. These include heavy metals like lead, cadmium, mercury and toxic chemicals like poly chlorinated biphenyls (PCB) and brominated flame retardants (BFR). Alongside they have valuable materials like copper, glass, platinum, gold, plastics, metals, and rare earth metals. A proper disposal system should ensure both the safe disposal of harmful substances, as well as an efficient recovery of usable materials which can be reused.

Currently, more than 95% of such waste (e-waste) is collected and recycled in small shanty operations which also create toxicity of soil and water, besides putting workers at risk of exposures and health impacts. Often the operations concentrate on 'cherry-picking' usable materials like copper, gold, glass and plastics, while dumping the rest. These informal sector operations currently recycle and dispose off most of the estimated approximately one million tonnes of e-waste produced annually in India, and employ tens of thousands of workers including women and children.

To shift these hazardous operations to more environmentally sound ones, the Government of India notified the E-Waste Management and Handling Rules in May 2011, which came into force a year later in 2012. The attempt was to carve out a 'green' channel of waste collection and to divert waste from the informal to the formal sector. These rules recognized the best international practices to treat waste as part of the product life cycle, and extended the producers responsibility beyond end-of-life of products to include the collection and disposal of waste. Hence a company manufacturing computers needed also to ensure that these are disposed off properly once they are discarded. EPR (Extended Producer Responsibility) as this is called, is the core of the Indian Rules, and put the prime onus of responsibility onto the producer/manufacturer or importer of such goods. The producer is also required to set up collection centers and ensure the waste is channelized to an authorized recycler. This is also the type of practice most international companies which operate in India follow in Europe and other places.

Unfortunately, as per recent independent evaluations, the industry has fallen far short of its requirement and commitment. Despite the fact that the rules were made with full consultation with the electronics and electrical industry, they have not made the required investments or an effort to set up such 'green'

collection and recycling networks, even though they have the requisite international experience of doing so. On the other hand 138 licenses have been granted to independent recyclers, but without the collection systems in place. This has resulted in a 'business as usual' scenario, where licensed recyclers are collecting e waste from the same informal sector channels, rather than create new ones. It is problematic since once waste is in the informal sector there is no way to ensure that it will be dealt with safely. Hence instead of waste being collected at designated centers and safely channelized to a authorized chain of dismantlers and recyclers, it is still ending up in the backyard operations. In fact bulk users continue to auction e waste to the highest bidder, rather than to authorized recyclers, despite the legal restrictions. Some licensed recyclers are reportedly only collecting waste and exporting it to companies internationally for recycling. Hence precious materials which could be locally recovered are sent out, adding no incentive for new local networks being created. Another problem has been the illegal imports of e waste, in violation of both international legally binding conventions, as well as Indian regulations. Much of the waste comes in as 'mixed metal scrap,' and escapes detection at the ports. Also waste in the form of second hand electronic goods were imported, though this has been stopped.

It would be fair to say, that the Rules of 2011 have not been successful so far. The reasons include a reluctance to regulate by the State Pollution Boards, (data filed in an ongoing case in the National Green Tribunal in Delhi shows the dismal efforts of most State Pollution Boards), an unwillingness by the industry to invest in collection networks, and the grant of recycling licenses by the Government without the requisite proper collection networks in place. Another very important reason is the non-recognition of role of the informal sector, and a lack of effort to involve them in the new proposed systems. This is important to do, since a lack of a base line cost of this sector, makes them very hardy competitors. Creating cooperation instead of competition through involving the informal sector in collection and disassembling operations (but not in actual recycling and recovery), which are much less hazardous, and where they have pre-existing skills could be a way of implementing this. Though a couple of waste pickers collectives have come forward to obtain licenses, it has been a difficult task for them. Clearly for them to participate would require guidance and training, but currently there is no provision to enable this.

Currently a new amended law (2105), which attempts to fill in some of the gaps in the 2011 law is on the table as a draft. However implementing a safe e waste disposal system in India will take more than a good law. This law is not merely an emissions and discharge control environmental legislation, it also attempts to create a new collection and recycling infrastructure. This will require hand holding, problem solving, and a cooperative approach of stakeholders like the municipalities, other local bodies and the pollution regulators. It will also need a willingness to comply by the industry, and reskilling of informal sector workers to enable their participation. Finally it needs a massive awareness effort to educate consumers and especially bulk users to dispose off waste in a proper manner.