

E-waste management in India

The discarded electronic products whose useful life has ended like computer equipment, home appliances, audio and video products etc are known as e-waste.

Electronic and electrical equipment contain different hazardous materials that are harmful to human health and the environment if not disposed of carefully.

E-waste in India

- In the report of 'Global E-waste Monitor 2014' 17 lakh tonnes of waste is generated in the country in 2014 with an annual increase of 5 per cent of generation of e-waste.
- The 65 cities generate more than 60% of the total generated e-waste whereas 10 states generate 70% of e-waste.
- In India, among top ten cities, Mumbai ranked first followed by Delhi, Bangalore, Chennai, Kolkata, Ahmadabad, Hyderabad, Pune, Surat, and Nagpur.
- Most of the e-waste in India is recycled in unorganized units by a large amount of manpower. Recovery of metals by primitive means is the most hazardous act.
- It can even cause damage to human beings through inhalation of gases during recycling, contact of skin with hazardous substances, and contact during acid treatment used in recovery processes. So, proper recovery methods are required.
- Proper education, awareness and most importantly alternative cost-effective technology need to be provided to those who earn a livelihood from this.

E-waste Management Rules, 2016

For the first time, rules bring producer under extended producer responsibility (EPR) and made responsible for the collection of e-waste.

Some of the highlights of rules are-

1. Manufacturer, dealer, refurbisher and producers' responsibility organisation have been introduced.
2. Collection centres, collection points and take back system are some of the examples for collection of waste by producer.

3. For implementation of EPR (extended producer responsibility), PRO (producer responsibility organisation), e-retailer, deposit fund scheme etc are set up so that e-waste can be better channelized.
4. Provision of Pan-India EPR authorisation by CPCB has been introduced by replacing the state wise EPR authorisation.
5. The manufacturer is not responsible for collection of e-waste which is generated through manufacturing of any electrical and electronic material. Manufacturer need to seek authorization from SPCB.
6. The dealer needs to provide a box to consumer for collection and send it to producer.
7. Dealer or retailer needs to send back the money to the system of deposit refund scheme of the producer to the depositor of e-waste.
8. Refurbisher needs to collect e-waste and send it to authorised recycler. They need onetime authorization from SPCB.
9. The role of state government is also important to ensure safety, health and skill development of the workers involved in the recycling processes.
10. Transportation should be carried out as per the system. Transporter needs to carry a document prepared by the sender in detail.
11. Financial penalty is also introduced against violation of norms like damage to the environment or health of humankind.
12. Urban local bodies also carry the duty of collection of e-waste and channelize it to recycler.

A holistic approach is needed to address the challenge faced by India in e-waste management. A suitable mechanism needs to be evolved to include small units in unorganised sector and large units in organised sector.