

## **Children and Digital Dumpsites: WHO Report**

## Why in News

The <u>World Health Organization (WHO)</u> in its recent report "Children and Digital Dumpsites" has underlined the risk that children working in informal processing are facing due to discarded electronic devices or e-waste.

- There are as many as **18 million children** (as young as five years) and about **12.9 million** women work at these e-waste dumpsites every year.
- The e-waste from high-income countries is dumped in the middle- or low-income countries for processing every year.

## **Key Points**

- About the E-waste:
  - **E-Waste** is short for **Electronic-Waste**. It is the term used to describe old, end-of-life or discarded electronic appliances.
    - It majorly includes electronic equipment, completely or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes.
    - It contains over 1,000 precious metals and other substances like gold, copper, lead, mercury, cadmium, chromium, polybrominated biphenyls and polycyclic aromatic hydrocarbons.
- Volume of E-waste:
  - Global Scenario: According to the Global E-waste Statistics Partnership, the volume of e-waste generated is surging rapidly across the globe.
    - About 53.6 million tonnes of e-waste was generated in 2019.
    - Only 17.4% of this e-waste was processed in formal recycling facilities. The rest
      of it was dumped in low- or middle-income countries for illegal processing by
      informal workers.
    - This is because of the rise in the number of smartphones and computers.
  - Indian Scenario:
    - According to the <u>Central Pollution Control Board (CPCB)</u>, India generated more than 10 lakh tonnes of e-waste in 2019-20, an increase from 7 lakh tonnes in 2017-18. Against this, the e-waste dismantling capacity has not been increased from 7.82 lakh tonnes since 2017-18.
    - In 2018, the Ministry of Environment had told the tribunal that **95% of e-waste in India is recycled by the informal sector** and scrap dealers unscientifically dispose of it by burning or dissolving it in acids.
- Impact of Working at Digital Dumpsites:
  - On Children: The children working at these 'digital dumpsites' are more prone to

improper lung function, deoxyribonucleic acid damage and increased risk of chronic diseases like cancer and cardiovascular disease.

- They are less likely to metabolise or eradicate pollutants absorbed.
- On Women: Several women, including expectant mothers, also work there. Processing e-waste exposes them as well as their children to these toxins, which can lead to premature births and stillbirth.
- On Others: The hazardous impact of working at such sites is also experienced by families and communities that reside in the vicinity of these e-waste dumpsites.
- Management of E-waste (International Convention):
  - Basel Convention on the Control of the Trans-boundary Movement of Hazardous Waste, 1992.
    - Originally the <u>Basel Convention</u> did not mention e-waste but later it addressed the issues of e-waste in 2006 (COP8).
    - The convention seeks to ensure environmentally sound management; prevention of illegal traffic to developing countries and; building capacity to better manage ewaste.
    - The Nairobi Declaration was adopted at COP9 of the Basel Convention. It aimed at creating innovative solutions for the environmentally sound management of electronic wastes.
- Management of E-waste in India:
  - Producers:
    - The government has implemented the **E-waste (Management) Rules (2016)** which enforces the **Extended Producer Responsibility (EPR).** 
      - Under EPR principle the producers have been made responsible to collect a certain percentage of E-waste generated from their goods once they have reached their "end-of-life".
  - State Governments:
    - They have been entrusted with the responsibility for maintaining industrial space for e-waste dismantling and recycling facilities.
    - They are also expected to establish measures for protecting the health and safety
      of workers engaged in the dismantling and recycling facilities for e-waste.
  - Recycling of E-waste:
    - India's first e-waste clinic for segregating, processing and disposal of waste from household and commercial units has been set-up in Bhopal, Madhya Pradesh.

## **Way Forward**

- Most of the e-waste is recycled in India in unorganized units, which engage a significant number of manpower. Recovery of metals from Printed Circuit Boards (PCBs) by primitive means is a most hazardous act.
- Proper education, awareness and most importantly alternative cost effective technology need to be provided so that better means can be provided to those who earn their livelihood from this.
- A holistic approach is needed to address the challenges faced by India in e-waste management. **One approach could be** for units in the unorganized sector to concentrate on collection, dismantling, segregation, whereas, the metal extraction, recycling and disposal could be done by the organized sector.
- A **suitable mechanism** needs to be evolved to include small units in the unorganized sector and large units in the organized sector into a single value chain.

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