

INCREASING E-WASTE

Why in News

According to a recent **United Nations University (UNU)** report, **global e-waste** will **increase** by **38%** in the **decade between 2020 and 2030**.

- **UNU is a global think tank and postgraduate teaching organisation** headquartered in **Japan**.
 - **UNU's mission** is to resolve the pressing global problems of human survival, development and welfare that are the concern of the **United Nations**, its peoples and the member states.

E-Waste

- E-Waste is short for **Electronic-Waste** and the term used to describe old, end-of-life or discarded electronic appliances.
- It is categorised into **21 types under two broad categories**:
 - Information technology and communication equipment.
 - Consumer electrical and electronics.
- E-waste includes their components, consumables, parts and spares.

Key Points

- **Data Analysis of 2019:**
 - There was **53.6 million tonnes (MT) e-waste in 2019**, which is a nearly **21% increase** in just five years.
 - **Asia generated the greatest volume** (around 24.9 MT) followed by the Americas (13.1 MT) and Europe (12 MT). Africa and Oceania generated 2.9 MT and 0.7 MT respectively.

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- Most E-waste **consisted of small and large equipment** like screens and monitors, lamps, telecommunication equipment etc and temperature exchange equipment.
- **Less than 18%** of the e-waste generated in 2019 was **collected and recycled**.
 - E-waste consisting of gold, silver, copper, platinum and other high-value, recoverable materials worth at least USD 57 billion was mostly dumped or burned rather than being collected for treatment and reuse.
- The **number of countries that have adopted a national e-waste policy, legislation or regulation has increased from 61 to 78 and includes India**.
 - It is far from the target set by the **International Telecommunication Union** to raise the percentage of countries with e-waste legislation to 50%.

■ **Concerns:**

- **Toxicity:** E-waste consists of **toxic elements** such as Lead, Mercury, Cadmium, Chromium, Polybrominated biphenyls and Polybrominated diphenyl.
- **Effects on Humans:** Some of the major health effects include serious illnesses such as lung cancer, respiratory problems, bronchitis, brain damages, etc due to inhalation of toxic fumes, exposure to heavy metals and alike.
- **Effects on Environment:** E-waste is an **environmental hazard** causing groundwater pollution, acidification of soil and contamination of groundwater and air pollution due to the burning of plastic and other remnants.

E-waste in India

- Structured management of e-waste in India is mandated under the **E-Waste (Management) Rules, 2016**.

- Some of the salient features of the rules include **e-waste classification**, **extended producer responsibility (EPR)**, **collection targets** and **restrictions on import of e-waste** containing hazardous materials.
- There are 312 authorised recyclers of e-waste in India, with the capacity for treating approximately 800 kilo tons annually. However, **formal recycling capacity remains underutilised** because **over 90%** of the e-waste is still **handled by the informal sector**.
- Almost over a million people in India are involved in **manual recycling operations**. Workers are not registered so it is hard to **track the issues of employment such as workers' rights, remunerations, safety measures**, etc.
- Labourers are from the **vulnerable sections** of the society and **lack any form of bargaining power** and are **not aware of their rights**. This has a serious impact on the environment since none of the procedures is followed by workers or local dealers.

Way Forward

- It is needed to come up with a strategy to engage with informal sector workers because doing so will not only go a long way in better e-waste management practices but also aid in environmental protection, improve the health and working conditions of labourers and provide better work opportunities to over a million people.
- This will make management environmentally sustainable and easy to monitor.
- The need of the hour is to generate employment, which can be done through identifying and promoting cooperatives and expanding the scope of the E-Waste (Management) Rules, 2016 to these cooperatives or the informal sector workers.
- Effective implementation of regulations is the way ahead to managing the e-waste that is yet to be regulated in at least 115 countries.

Source: DTE