



General Studies-3; Topic: Conservation, environmental pollution and degradation, environmental impact assessment.

India's E-Waste Management

Introduction

- E- Wastes are discarded and end- of- life electronic products ranging from computer, TV and other electronic equipment and their electronic components.
- India is the third largest E-waste generator, after USA and China.

E-Waste

- E-waste contain toxic chemicals such as lead, mercury, cadmium, lithium., etc.
- It can cause serious harm to the environment and human health if not handled properly.
- Countries like China, USA, India and Australia produce most of the world's e-waste.

Electronics Production in India

- The share of domestic electronics production in India's GDP is around 2.3 per cent.
- The **National Policy on Electronics (NPE) 2019**, envisions positioning India as a global hub for electronics system design and manufacturing.
- The electronics production in India has seen a compound annual growth rate of 23 per cent from 2014-15 to 2019-20.
- Schemes introduced in NPE 2019 to boost the domestic production of electronics in India:
 - **Production-linked incentive scheme (PLI).**
 - **Scheme for promotion of manufacturing of electronic components and semiconductors (SPECs).**

Planned obsolescence

- Producers and manufacturers of electronics use planned obsolescence to increase consumerism in a variety of ways.

- It leads to an increase in electronic-waste.
- Planned obsolescence is a trick used by companies to turn you into a repeat customer, with or without your knowledge.

Issues with handling e-waste

- According to the **Central Pollution Control Board (CPCB)**, India generates more than **10 lakh tonnes of e-waste**.
- **95% of e-waste** in India is **recycled by the informal sector** and **scrap dealers unscientifically dispose it**.
- **Gap in e-waste collection**.
- In India, about **5 lakh child laborers** in the age group of 10-14 are engaged in various E-waste activities and that too **without adequate protection and safeguards**.
- E-waste contains over 1,000 toxic materials, which contaminate soil and groundwater.
- Around 80% of E-waste in developed countries are sent to developing countries such as India, China, Ghana and Nigeria.

Concerns / Challenges

- Mobile phones have a shorter life. They get discarded more often as compared to other Electronic Equipments.
- The shorter lifespan of many consumer electronics comes at a steep environmental cost.
- A study has found that 85 to 95 per cent of carbon foot print is not caused by the use of the device but rather its production.
- The tradition of Reparability of electronic devices is getting forgotten in the newer generation of consumers.

International Practice

- Some countries have introduced policies that improve the 'Right to Repair' for consumers.
- The European Union rules, require appliance manufacturers to supply spare parts for a period of 10 years.
- Sweden has slashed the repairing taxes by more than half to encourage people to repair rather than buy new products.
- France - label on products indicating the reparability index of the product.

Benefits of good E-waste Management

- **E-waste contains valuable resources that can be recovered and reused**.
- Recycling of e-waste uses much less energy in comparison of mining for such resources, thus **reducing the greenhouse gas emissions**.
- E-waste recycling not only help create **more job opportunities** but also boosts the economy.

Way Forward

- 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.
- **Effective implementation of regulations** is the way ahead to managing the e-waste.
- Modern times call for competent policies that are relevant to the present issues.
- For channelisation of end-of-life products to the right destination, introduction of electronics as a service rather than as a product.
- Incentivising consumers for not buying electronics frequently or think before they buy.
- Incentivising businesses for making products that have a longer mean service life.
- This will go a long way in dealing with the issue of electronic waste.