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**DAILY EDITORIAL
ANALYSIS**

TOPIC

**E-waste Generation & Its
Impacts**

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E-WASTE GENERATION & ITS IMPACTS

In Context

- The Global E-waste Monitor 2024, brought out by United Nations Institute for Training and Research (UNITAR), International Telecommunication Union (ITU), and Fondation Carmignac, a corporate foundation.

Key findings

- The world produced 62 billion kg of electronic waste (e-waste) in 2022.
 - That number is projected to rise to 82 billion kg in 2030
- The world's generation of electronic waste is rising five times faster than documented e-waste recycling
- The report also highlighted the composition of the 62 billion kg of e-waste.
 - It contained 31 billion kg of metals, 17 billion kg of plastics and 14 billion kg of other materials (minerals, glass, composite materials, etc.)
- Region wise :** Among regions, Europe has the highest rate of documented formal collection and recycling of e-waste at 42.8 percent.
 - Meanwhile, Africa generates the lowest rates of e-waste but struggles to recycle it.
 - Countries in Asia generate almost half of the world's e-waste (30 billion kg) but have made limited advances in e-waste management; moreover, relatively few of them have enacted legislation or established clear e-waste collection targets.

Impacts and Challenges

- E-waste, any discarded product with a plug or battery, is a health and environmental hazard, containing toxic additives or hazardous substances such as mercury, which can damage the human brain and coordination system
- Challenges contributing to the widening gap include technological progress, higher consumption, limited repair options, shorter product life cycles, society's growing electrification, design shortcomings, and inadequate e-waste management infrastructure.

Global policy

- On the policy front, 81 countries have adopted e-waste policy, legislation or regulation. Sixty-seven countries have legal provisions on EPR for e-waste.
- Another 46 have provisions on e-waste collection rate targets. Finally, 36 countries have provisions on e-waste recycling rate targets.

Status in India

- The Ministry of Environment, Forest and Climate Change has comprehensively **revised the E-Waste (Management) Rules, 2016** and notified the E-Waste (Management) Rules, 2022 in November, 2022 and the same is in force since 1st April, 2023.
- These new rules intend to manage e-waste in an environmentally sound manner and put in place an improved **Extended Producer Responsibility (EPR)** regime for e-waste recycling wherein all the manufacturer, producer, refurbisher and recycler are required to register on a portal developed by the CPCB.
- The new provisions would facilitate and channelize the informal sector to the formal sector for doing business and ensure recycling of E-waste in an environmentally sound manner.
- Provisions for environmental compensation and verification & audit have also been introduced.

Suggestions

- Amidst the hopeful embrace of solar panels and electronic equipment to combat the climate crisis and drive digital progress, the surge in e-waste requires urgent attention.

- There is an immediate call for greater investment in infrastructure development, more promotion of repair and reuse, capacity building, and measures to stop illegal e-waste shipments.
- Concrete steps are urgently needed to address and reduce e-waste.
- Improved e-waste management could result in a global net positive of US \$38 billion, representing a significant economic opportunity while addressing climate change and health impacts.
- We must seize the economic and environmental benefits of proper e-waste management; otherwise, the digital ambitions of our future generations will face significant risks.
- Monitoring the quantities and flows of e-waste is essential for evaluating developments over time, and to set and assess targets towards a sustainable society and circular economy.

Mains Practice Question

[Q] The enforcement of e-waste policy, legislation and regulation remains a genuine challenge globally. Elucidate

