

# Chapter-7

# E-Waste: Generation and Management

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# Introduction

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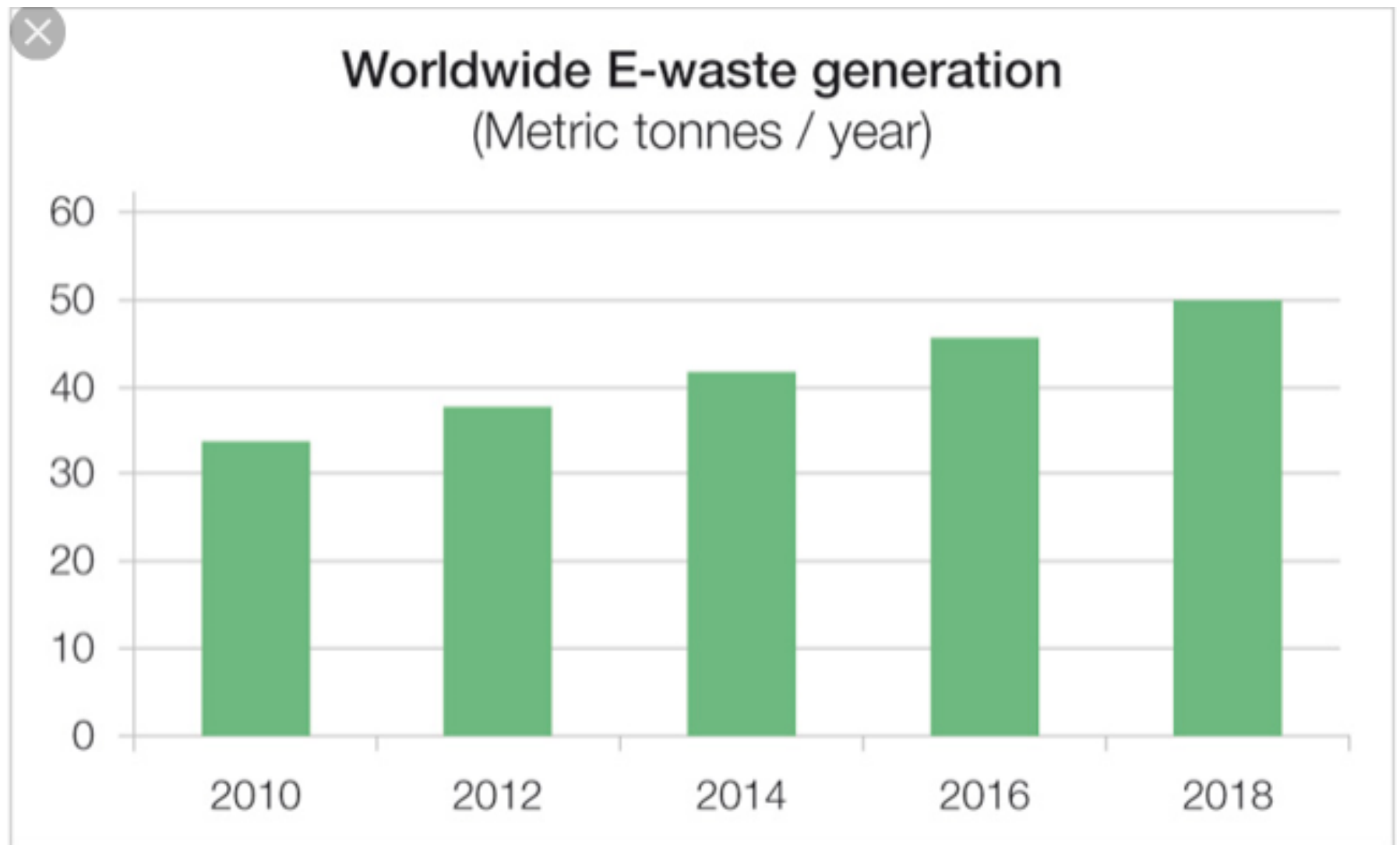
- E-Waste is defined as electrical and electronic equipment, whole or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing refurbishment and repair process.

# Classification of E-Waste

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- Large house hold appliances.
- Small household appliances.
- Information technology and telecommunication equipment.
- Consumer equipment
- Lighting equipment.
- Medical equipment system
- Monitoring and control instrumentation
- Automatic dispencers.

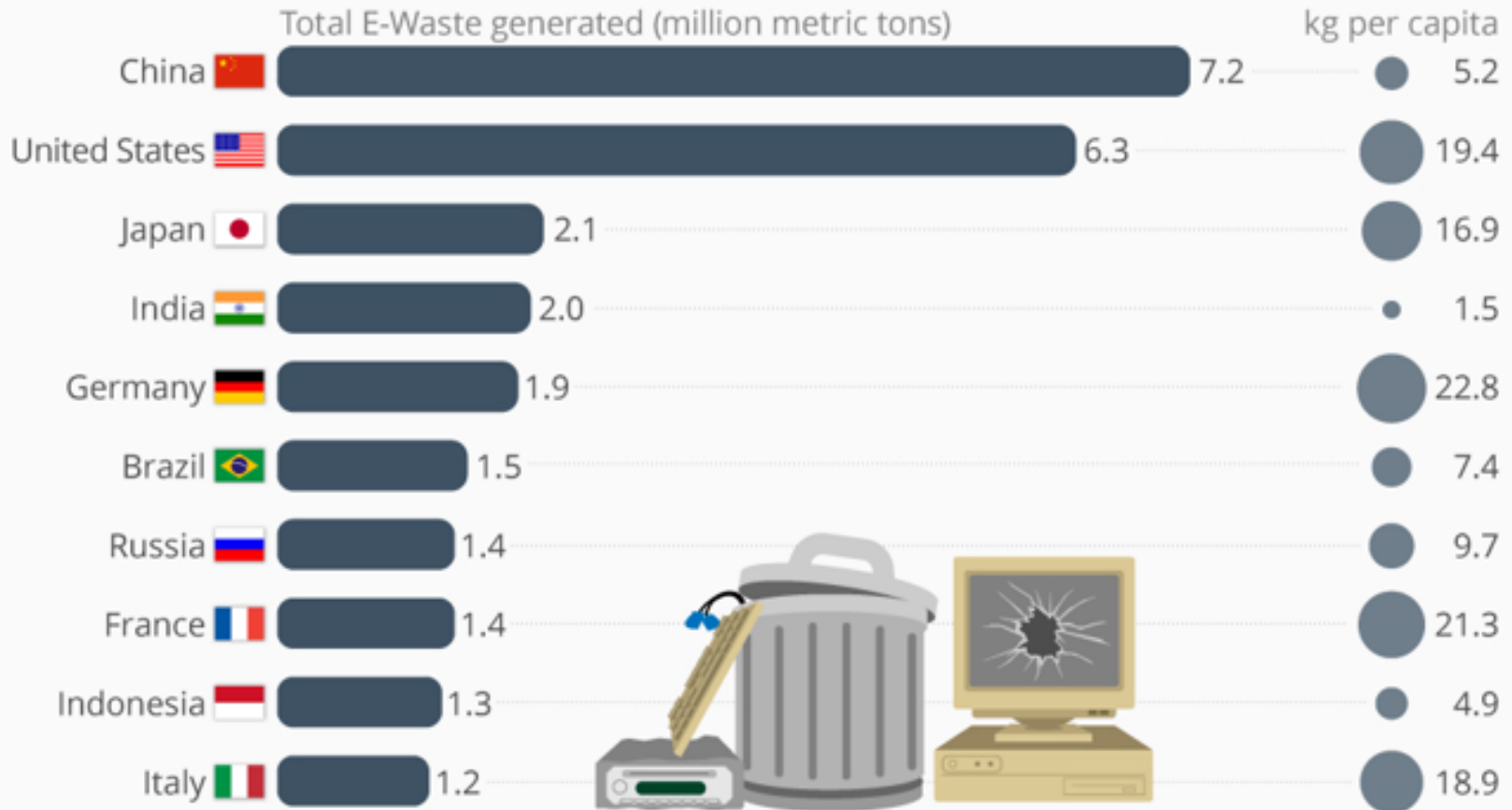
# Generation of E-waste:-



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## These Countries Generate the Most Electronic Waste

Top 10 countries by the amount of e-waste generated in 2016\*



\* includes discarded products with a battery or plug including mobile phones, laptops, televisions, refrigerators, electrical toys and other electronic equipment

# Impact of E-waste On Environment and Human Health

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- E-waste has come under attack in recent years due to its negative effects on the environment and human health.
- E-waste is often considered an overlooked epidemic, as the long-term impact of this waste is still unclear.
- Still, many e-waste recycling centers have been created in recent years in an effort to protect humans and the planet.

# Impact of E-waste On Environment and Human Health

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## 1. E-waste Negatively Impacts the Soil

- First, e-waste can have a damaging effect on the soil of a region. As e-waste breaks down, it releases toxic heavy metals. Such heavy metals include lead, arsenic, and cadmium.
- When these toxins leach into the soil, they influence the plants and trees that are growing from this soil.
- Thus, these toxins can enter the human food supply, which can lead to birth defects as well as a number of other health complications.

# Impact of E-waste On Environment and Human Health

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## 2. E-waste Negatively Impacts the Water

- E-waste that is improperly disposed of by residents or businesses also leads to toxins entering groundwater.
- This groundwater is what underlies many surface streams, ponds, and lakes. Many animals rely on these channels of water for nourishment. Thus, these toxins can make these animals sick and cause imbalances in the planetary ecosystem.
- E-waste can also impact humans that rely on this water. Toxins like lead, barium, mercury, and lithium are also [considered carcinogenic](#).



# Impact of E-waste On Environment and Human Health

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## 3. E-waste Negatively Impacts the Air

- When e-waste is disposed of at the landfill, it's usually burned by incinerators on site.
- This process can release hydrocarbons in the atmosphere, which pollutes the air that many animals and humans rely on.
- Furthermore, these [hydrocarbons can contribute to the greenhouse gas effect](#), which many scientists think is a leading contributor to global warming.
- In some parts of the world, desperate people sift through landfills in order to salvage e-waste for money. Yet, some of these people burn unwanted parts like wires in order to extract copper, which can lead to air pollution as well.

# Management of E-waste

## E-WASTE MANAGEMENT



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# Management of E-waste

