

GROUP 3

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E-Waste

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WHAT IS E-WASTE ?

Electronic waste or e-waste describes discarded electrical or electronic devices. Used electronics which are destined for reuse, resale, salvage, recycling, or disposal are also considered e-waste. Informal processing of e-waste in developing countries can lead to adverse human health effects and environmental pollution.

Electronic scrap components, such as CPUs, contain potentially harmful components such as lead, cadmium, beryllium, or brominated flame retardants. Recycling and disposal of e-waste may involve significant risk to health of workers and communities in developed countries and great care must be taken to avoid unsafe exposure in recycling operations and

leaking of materials such as heavy metals from landfills and incinerator ashes.

Guiyu is likely one of the oldest and largest informal e-waste recycling sites in the world, however, there are many sites worldwide, including India, Ghana, Nigeria, and the Philippines.

Most research involving informal e-waste recycling has been done in Guiyu, but there are a handful of studies that describe exposure levels in e-waste workers, the community, and the environment. Bangalore, located in southern India, is often referred as the "Silicon Valley of India" and has a growing informal e-waste recycling sector.

10 FACTS ABOUT E- WASTE



- 80 to 85% of electronic products were discarded in landfills or incinerators, which can release certain toxics into the air.
- E-waste represents 2% of America's trash in landfills, but it equals 70% of overall toxic waste. The extreme amount of lead in electronics alone causes damage in the central and peripheral nervous systems, the blood and the kidneys.
- 20 to 50 million metric tons of e-waste are disposed worldwide every year.
- Cell phones and other electronic items contain high amounts of precious metals like gold or silver. Americans

dump phones containing over \$60 million in gold/silver every year.

- Only 12.5% of e-waste is currently recycled.
- For every 1 million cell phones that are recycled, 35,274 lbs. of copper, 772 lbs. of silver, 75 lbs. of gold, and 33 lbs. of palladium can be recovered.
- Recycling 1 million laptops saves the energy equivalent to the electricity used by 3,657 U.S. homes in a year.
- E-waste is still the fastest growing municipal waste stream in America, according to the EPA.
- A large number of what is labeled as "e-waste" is actually not waste at all, but rather whole electronic equipment or parts that are readily marketable for reuse or can be recycled for materials recovery.
- It takes 539 lbs. of fossil fuel, 48 lbs. of chemicals, and 1.5 tons of water to manufacture one computer and monitor.

CAUSES OF E-WASTE.

The main cause or rather reason for the increasing e-waste is the increased number of products because of which disposal problems are caused as excess of anything is not good.

The following are major causes-

Technology : In this modern era technology is growing at lightning fast speed. This technology results in the coming of newer products and appliances.

Population : Due to the increase in population the use of electronic gadgets have also increased thus leading to generation of E-waste.



Causes of E-Waste

Changes in media (tapes, software, MP3)

Rapid changes in technology

Falling prices

Planned obsolescence.



Development : As of now, It is estimated that there are over a billion personal computers in the world. In developed countries these have an average lifespan of only 2 years. Due to development in technology the increase in the generation of E-waste has also increased.



Tips for managing E-waste.



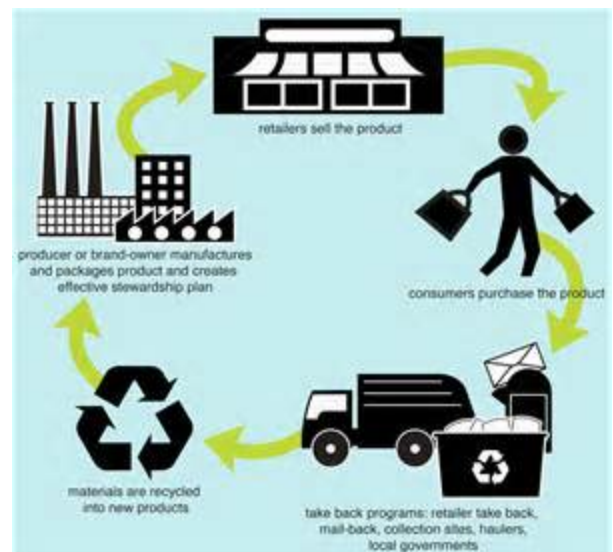
1. Buy less: We need to minimize ourselves from buying electronic gadgets.

2. Organize what you have: If you don't organize your gadgets, wires, connectors and DVDs, you will never really know what you have.

3. Give away or donate your E-waste: If you don't need a thing (old electronic items) donate it so someone else can use it.

4. Make a good-e-bag: Making a good-e-bag with all the electronic items collected in it and giving it to people who need it is a good idea.

5. Create awareness: We need to create awareness among the people about the harmful effects of E-waste.





E WASTE MANAGEMENT

Electronic waste or e-waste is the term used for unwanted electronic gadgets that can no longer be used.

E-waste recycling means modifying the gadgets to make it usable for the same or some other purpose. Phones, TV, computers, washing machines, DVD can be considered e-wastes after their life ends.

You might have heard of paper and plastic waste recycling, but nowadays electronic wastes too are being recycled.

IMPORTANCE OF E-WASTE MANAGEMENT

Hazardous:

Electronic gadgets contain harmful chemicals like cadmium, lithium and lead. If these gadgets are thrown away in the environment these chemicals will accumulate and can be fatal for the plants, animals and us too. So, recycling can help us reduce the accumulation of hazardous chemicals.

Most e-wastes are non-biodegradable:

Non-biodegradable substances are those substances that take a very long time (about 500 years) to get decomposed. Electronic items contain such materials and following the 3R rule (Reduce, Recycle and Reuse) is a wiser choice.

Valuable:

E-Waste circuit boards contain a number of valuable materials like gold, copper, plastics, etc. Recycling e-wastes not only means to convert the unusable stuffs to usable stuffs, but also to recover materials that have economic importance.

Reusable:

E-Wastes consist of 90% recoverable and reusable materials. All the metals present in them are reusable. The circuit boards can also be reused again after some processing.

Increasing demand for refurbished electronics:

Refurbished electronics are those electronic items that have been returned to the factory by customers and then the factory corrects the fault in it and re sells it. Refurbished items can also be pre-owned. Refurbished items have lower prices than the fresh factory made products. And therefore, they are economically beneficial.’



Waste management is easy:

Recycling electronic items helps in reducing the waste and a sector of waste will disappear if every electronic waste is sent for the recycling purpose.





CONCLUSION

Do's

- All electrical and electronic products are required to be handed over only to the Authorized recycler.
- The product should be handed over only to authorized recycler for disposal.
- Keep the product in isolated area, after it becomes non-functional /unrepairable so as to prevent its accidental breakage.

Don'ts:

- The product is not meant for re-sale any unauthorized agencies/scrap dealer/kabariwalahs.
- The product is not meant for mixing into household waste stream.
- Do not keep any replaced spare part(s) from the product in exposed area.

2.

Managing Waste to Secure a Greener Future



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