

Week-1

E-Waste & Things You Must Know

What is E-waste?

- E-waste or Electronic waste, refers to any discarded and disposed of electronic equipment.
- With the proliferation of electronic devices e-waste has become a serious environmental and health problem facing the world.
- In India, less than 20% of the e-waste generated is being formally recycled, as a result, the untreated e-waste reaches the landfills, causing the leaching of toxic chemicals into the environment.
- E-Waste is the most rapidly growing waste problem in the world.



Sources of E-Waste

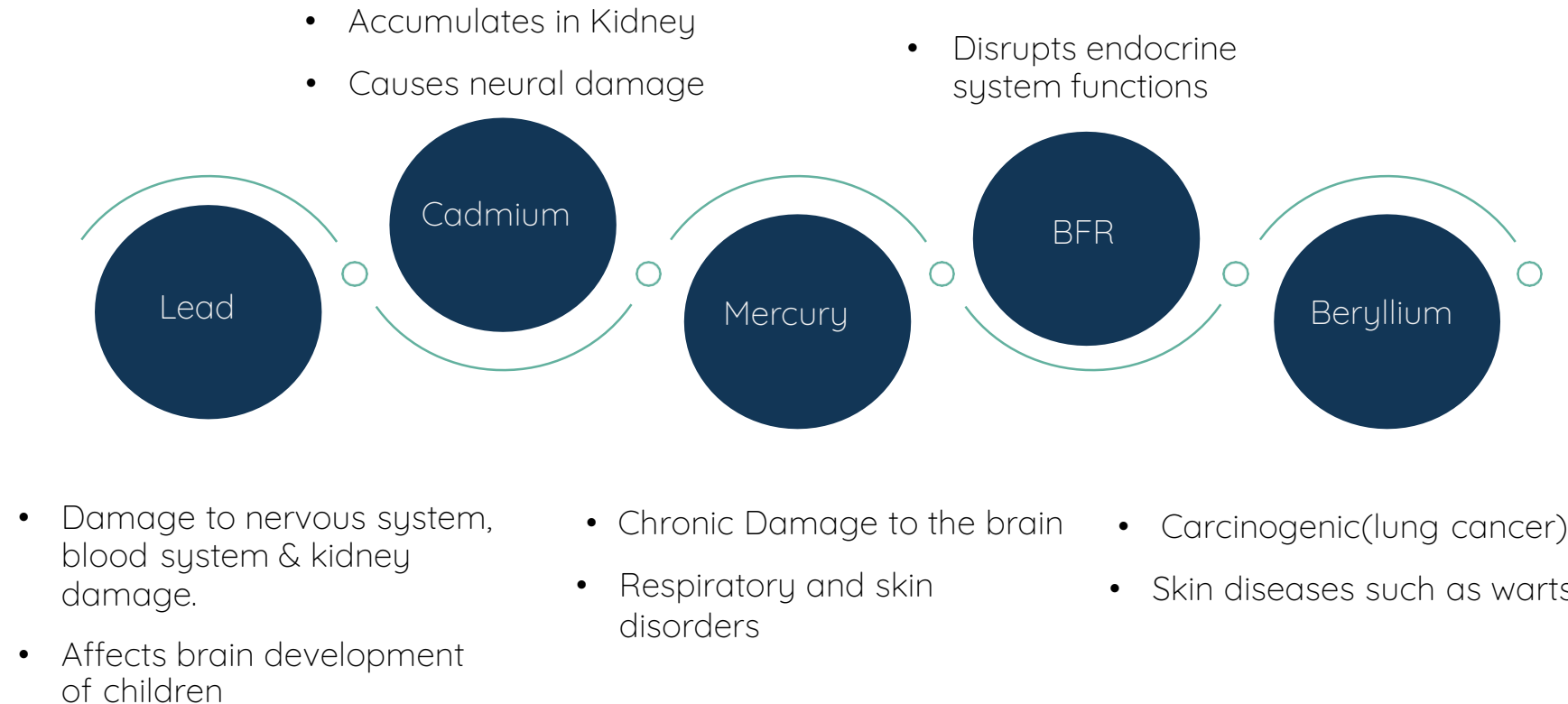
- Mobile Phones, Tablets, Laptops , Desktops, TVs
- Printer, Scanners, DVD players, Speakers, Cameras
- Household appliances viz. Microwave, Oven, Toaster, Mixer Grinder, refrigerator, Washing Machines, ACs
- Accessories: Chargers, Earphones, Cables ,
- Inverter Batteries, Stabilizer, UPS, CDs, Cassette, Floppy Disks
- Tube lights, Bulbs, CFLs, Toner/Cartridge , Dry cells



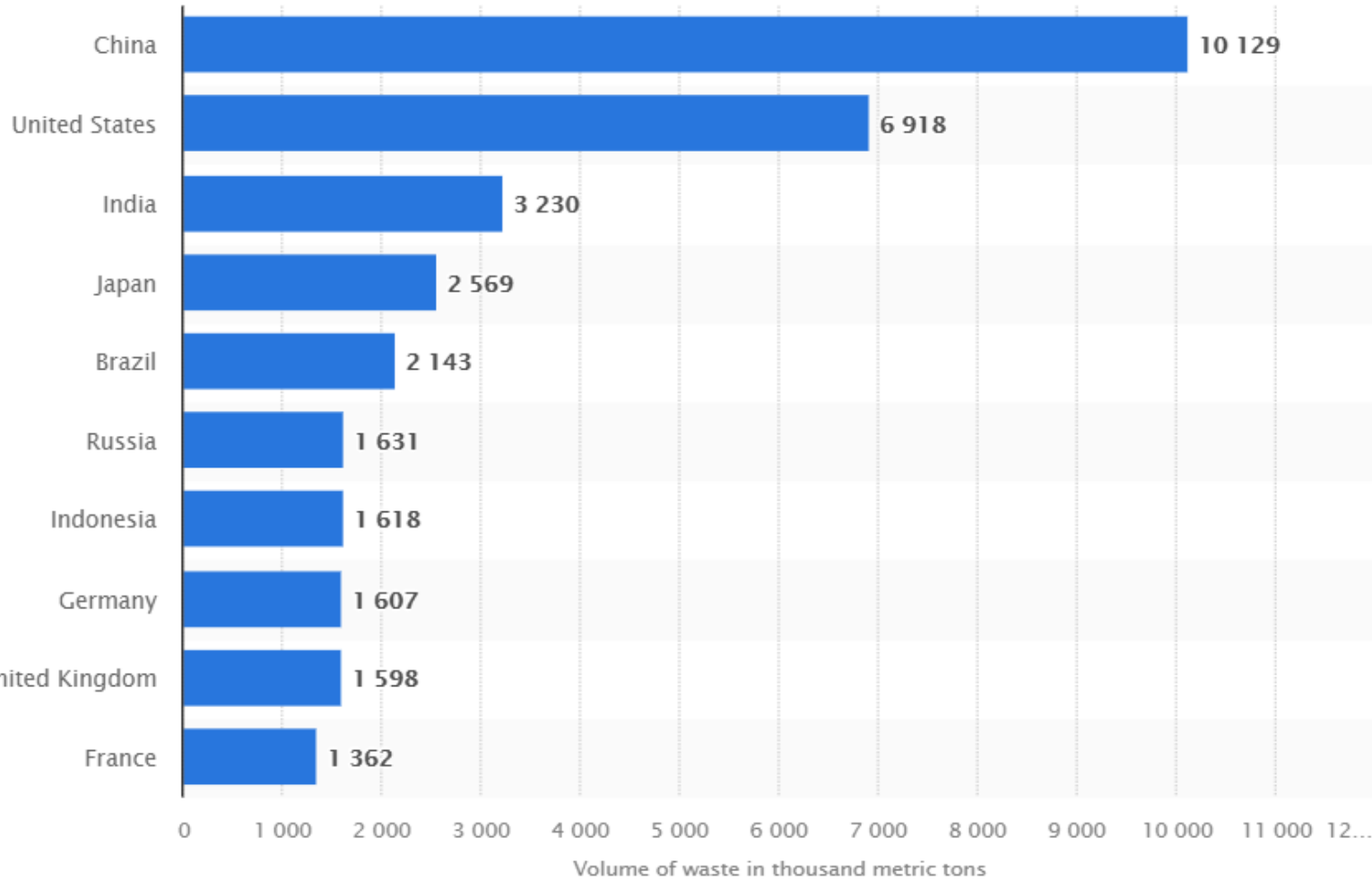
Why is E-waste hazardous?

- If e-waste is not recycled, it either ends up in landfills or reaches unregulated informal sectors where safe and standard recycling procedures are not followed, thereby creating more pollution of waste.
- Water sources and soils in and around the landfills have been found to have toxic traces of the metals such as Mercury, Beryllium, Lead, Cadmium & Arsenic found in e-waste, raising an alarm for the possibility of these toxicants reaching the food web.
- This chemical waste from disposed electronics tends to react with water and moisture, resulting in a chemical waste that pollutes the environment.

Chemicals released from e-waste and its effect on human health:



E-waste Generation per Country



Week-2

Recycling E-Waste & Things You Must Know

Recycling E-Waste

- No waste is as toxic as the e-waste.
- We produce waste in every step of our life but e-waste is the most disturbing for the environment. This is why it is so important to recycle the Electronic Wastes properly.
- More phones are discarded now than ever before. 5G to worsen India's E-Waste scenario
- On average each of us generate 6 kg of e-waste a year of which 4.8 kg either ends up in landfills or is informally recycled
- 20% of the total e-waste is formally recycled.
- 80% of Indians are aware of e-waste. About 50% Indians keep old devices despite e-waste awareness
- In India, industries contribute to 70% of e-waste, households contribute to almost 15% and the rest comes from discarded or end of life electrical and electronic equipment (EEE).



Status of E-waste in India:

- India generates 3 Mt of e-waste annually, which is predicted to increase with the pandemic causing higher usage of electronics.
- With rapid economic and population growth, India is one of the top three countries in e-waste generation, with an average growth in waste generation rising to 25% per year.
- The rates of recycling and collection are far poor in India compared to China and the USA.
- Maharashtra generates the most e-waste among all the Indian states.
- The city-wise ranking of the largest e-waste generators is Mumbai, Delhi, Bangalore, Chennai, Kolkata, Ahmedabad, **Hyderabad**, Pune, Surat, and Nagpur.
- Only ~ 20% of the e-waste out in India was collected, dismantled, and recycled or disposed off.



E-Waste @ Hyderabad

- The electronic waste in greater Hyderabad limits continues to increase every year.
- According to environmental protection training research institute (EPTRI), annual e-waste of greater Hyderabad, which is currently 40,000 tonnes per year, is likely to reach 1 lakh tonnes in the next five years.
- Majority people in the city are still dumping e-waste with regular household waste.



Do's of disposing your E-Waste

- Always look for information on the catalogue with your product for end-of-life equipment handling.
- Ensure that only Authorized Recyclers repair and handle your electronic products.
- Always call E-waste Authorized Collection Centers/points to Dispose products that have reached end-of life.
- Always drop your used electronic products, batteries or any accessories when they reach the end of their life at your nearest Authorized E-Waste Collection Centres/Points.
- Always disconnect the battery from product, and ensure any glass surface is protected against breakage.

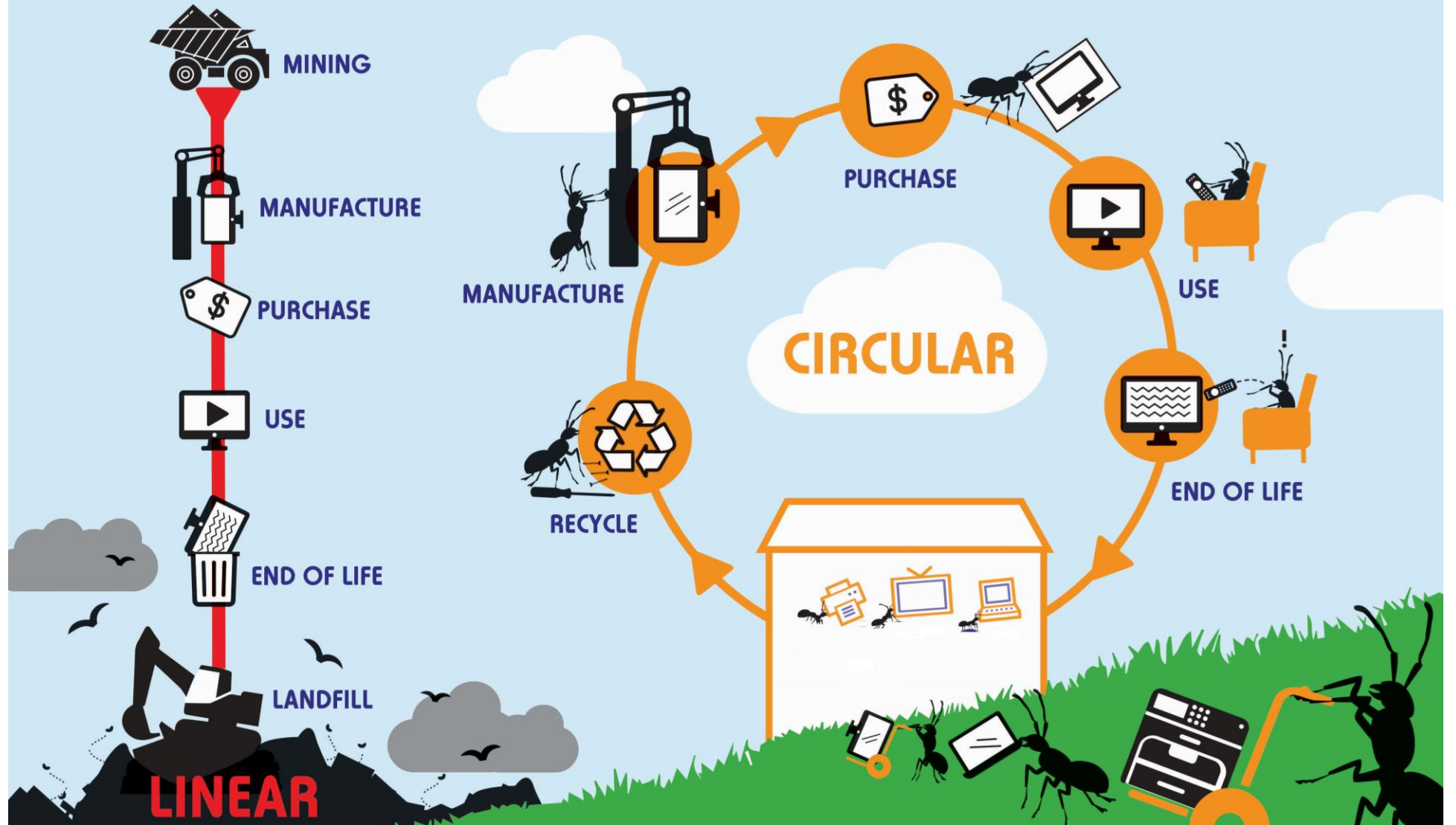


Don'ts of disposing your E-Waste

- Do not dismantle your electronic Products on your own
- Do not throw electronics in bins having “Do not Dispose” sign.
- Do not give E-Waste to unorganized sectors like Local Scrap Dealer/ Rag Pickers.
- Do not dispose your product in garbage bins along with municipal waste that ultimately reaches landfills.



Electronic waste: linear vs circular economy



Need for Circular Economy

This is a systematic way of economic development designed to benefit society, businesses, and the environment. By considering the production processes, the outline of the reuse, repairing, and recycling of items are taken care of, which helps increase sustainable manufacturing and consumption, which is the need of the hour. Taking care of harmful elements could also help reduce greenhouse gas emissions.



Advantages of Recycling E-waste:

HELPS KEEP TOXINS OUT
OF NATURE BY
REDUCING THE NEED
FOR LANDFILL



DISCARDED
ELECTRONICS CAN BE USED
TO MAKE NEW ONES SAVING
ENERGY AND EARTH'S
NATURAL RESOURCES



PREVENT POLLUTION BY
REDUCING THE EMISSIONS OF
GREENHOUSE GASES DUE TO
INCINERATION



SEVERAL PRECIOUS METALS
LIKE GOLD, SILVER, COPPER,
BAUXITE, ETC, CAN BE
EXTRACTED AND REUSED



Recycling takes a little effort on your part – but makes a big difference to this world

Advantages of Recycling E-waste:

Source of Employment
Good Business Opportunities



Cost Minimization
Resources Conservation



Saves Landfill space



Social & Environmental Impact



Recycling takes a little effort on your part – but makes a big difference to this world

Week-3

E-Waste Management Regulations & Things You Must Know

TELANGANA STATE: E-WASTE MANAGEMENT POLICY 2017

VISION

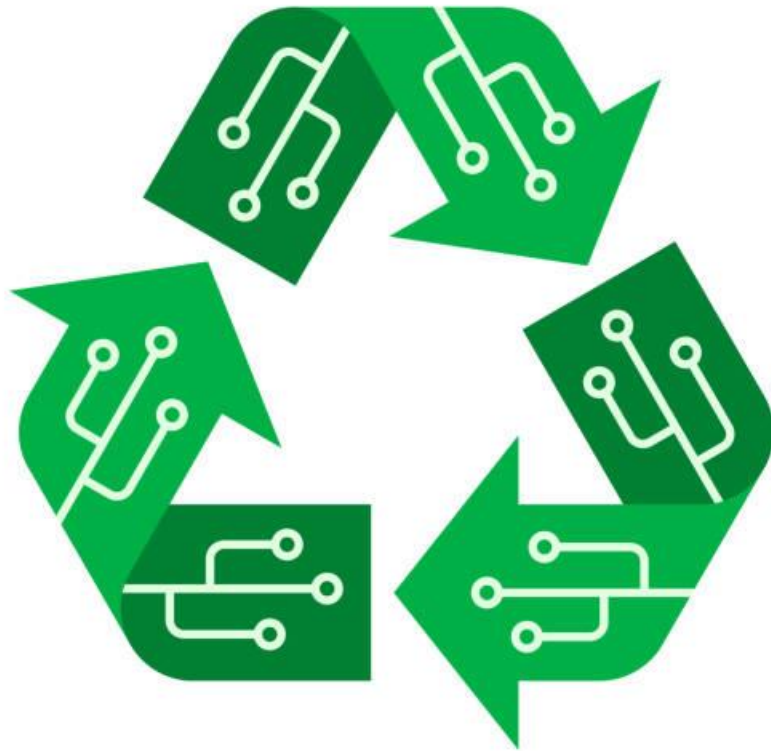
- To create an aware society which plays an active role in managing e-Waste by segregating and channelizing end-of-life products to the right avenues.
- To assist the highly unsafe unorganized sector transition into the organized sector through various initiatives.
- To create a vibrant e-Waste refurbishing and recycling ecosystem in the State



Telangana has released a comprehensive e-Waste Management Policy

| Key Pillars of the Policy Framework | | | |
|---|---|--|--|
| For Electronic Consumers | For Electronic Consumers | Green Warriors | |
| <ul style="list-style-type: none">• Check at the source of production and sale – emphasize to collect back at the EoL• Submit audited statements of equipment sold• Shall maintain records of e-Waste generated• Retail consumers• Awareness, Set up collection centers , Web application | <ul style="list-style-type: none">• State shall enter into partnerships with OEMs and ODMs in the state by providing financial and regulatory assistance for EPR implementation.• Promotion of Refurbished Goods• SoPS• Govt Departments- mandatory take back clause to be included in Govt procurements | <ul style="list-style-type: none">• Ensure strict adherence to provision of safety equipment by the processing unit to their staff.• Provide performance based financial incentives to the e-Waste processing units• Awareness drives in collaboration with NGOs, Industry Associations. | <ul style="list-style-type: none">• Introduce vocational training programs to rightly skill the current unorganized sector employees to ensure their smoother transition to working with organized sector. |

DETAILS OF TSPCB AUTHORISED E-WASTE DISMANTLERS, RECYCLERS AND PRODUCERS WITH EPR AUTHORIZATION



I. E-WASTE RECYCLING UNITS :

- M/S. Earth Sense Recycle Pvt., Ltd., Plot No.37 Apic Industrial Park, Mankal (V), Maheswaram (M), Rangareddy District.
- M/S. Z Enviro Industries Pvt., Ltd., Sy.No.106 & 107, Pulimamidi (V), Kandukur (M), Rangareddy District.
- M/S. Silicon Planet Recycling Pvt. Ltd., Sy.No.811/A, Ankireddypally (V) & Grampanchayat, Keesara (M), Medchal- Malkajgiri District.
- M/S. Envirokare Recycling Solutions Pvt. Ltd., Sy. No. 402, Raikal (V), Farooqnagar (M), Rangareddy District.
- M/S. Shreem Mythri Ewaste Recycling, Sy.No. 10/A2, 11/A3, 12/A2/3, 12/A3/1 & 12/A4, Narayanapur (V&m), Yadadri Bhuvanagiri District.

DETAILS OF TSPCB AUTHORISED E-WASTE DISMANTLERS, RECYCLERS AND PRODUCERS WITH EPR AUTHORIZATION



II. E-WASTE DISMANTLING UNITS :

- M/S. Enviro Collection Centre (Dismantling Unit), Plot No.1-185/2/A, Sy.No.298 Part, Phase- I, Ida Jeedimetla, Medchal-malkajgiri District.
- M/S. Ramky E-waste Recycling Facility, Hardware Park, Kancha, Raviryal (V), Maheswaram (M), Rangareddy District.
- M/S. Earthbox Ventures (P) Ltd., (E-waste Dismantling Unit), Sy.Nos.29, 30 & 85, Uddemarri (V), Shamirpet (M), Medchal-malkajgiri District.
- M/S. Bellus E Waste, Sy.No.4-120, Ramachandrapuram (Gp), Kondurg (M), Rangareddy District.
- M/S. Shreem Mythri Enterprises, Plot No.50, Phase-iii, Ida Cherlapally, Kapra (M), Medchal-malkajgiri District.

DETAILS OF TSPCB AUTHORISED E-WASTE DISMANTLERS, RECYCLERS AND PRODUCERS WITH EPR AUTHORIZATION



III. PRODUCERS WHO HAVE OBTAINED EPR AUTHORIZATION FROM CPCB:

- M/S. R. R. Marketing, G-3, Varshita Estates, Near Railway Bridge, Tilak Nagar, Hyderabad – 500044.
- M/S. Moksha Business Machines, Room No. 19, 3rd Floor, Unity House Abids, Hyderabad – 500001.
- M/S. S.K. Impex, Door No. 3-3-50, Shop No. 1 & 2, Block A-4, Ground Floor, Amrutha Arcade, Kachiguda, Hyderabad – 500027.
- M/S Blueberry Trading Inc, Shop No. 1, Door No, 1-2-63/64, Sr Arcade Parklane, Secunderabad.
- M/S. Jai Sica International, 609, A-block, Chenoy Trade Centre, Parklane, Secunderabad – 500003.

Week-4

Green Hyderabad IT Corridor & HYSEA

Green IT Corridor Initiative

As an apex industry organization representing a large part of IT/ITES industry in Hyderabad HYSEA would like to request all its member companies to do the following in an attempt to make Hyderabad IT Corridor green and sustainable.

For your Employees

- Educate And Encourage Your Employees on E-Waste
- Set Up Recycling Drop-Off Centers in your office for your employees
- Facilitate the disposal of E-Waste through the authorized channels.
- Organize active driven awareness programs for staff and their family members



Green IT Corridor Initiative

For your Organization

- Set Up the basic criteria for your company E-Waste recycling plan
- Start maintaining your organizations E-Waste statistics
- Develop an effective recycling strategy for your organization
- Partner with recycling companies. Recommend site inspections & due diligence
- When you donate computers, make sure that the recipients of donations are required to return the hardware to your organization once it reaches end-of-life at their end or arrange for proper disposal through government authorized E-waste vendors.
- Lets Make IT Better by doing our part.

