

- Single-use plastics, or disposable plastics, are used only once before they are thrown away or recycled. These items are things like plastic bags, straws, coffee stirrers, soda and water bottles and most food packaging.
- We produce roughly 300 million tons of plastic each year and half of it is disposable! World-wide only 10-13% of plastic items are recycled. The nature of petroleum based disposable plastic makes it difficult to recycle and they have to add new virgin materials and chemicals to it to do so. Additionally there are a limited number of items that recycled plastic can be used

# Where's the Plastic In Your Life?

- If you answered everywhere, you're probably not far off. This versatile material is in our appliances, computers, clothing, and so much more.
- Some of the most common places we find plastic is wrapped around the things we buy every day. After all, it's an effective way to keep food and cosmetics clean and fresh.

- Food packaging.
- Milk
- Metal cans
- Dental floss and disposable razors.
- Synthetic fabrics.
- Baby wipes and diapers.
- Feminine hygiene product.
- Wrapping paper.
- Chewing gum.
- Cigarette filters.
- Glues.
- Coffee cups.

# Single Use Plastics:

- Bottles
- Coffee Cups
- Takeout containers
- Cutlery
- Cigarette Butts
- Grocery Bags
- Straws
- Toothbrush
- Liquid Soap Bottle
- Household Cleaning Containers
- Laundry Detergent Bottles
- Shampoo, Conditioner Bottles
- Food Wrappers and Packaging
- Balloons



## My Waste My Responsibility

### Individual Responsibility - AVOID



## My Waste My Responsibility

### BEAT PLASTIC

Avoid:

So much of the plastic we use is completely unnecessary; give up these items and you won't even miss them.



## My Waste My Responsibility

### Reduce:

- ▶ Make a meal plan – reduce food waste
- ▶ Start relying on reusable containers
- ▶ Learn to repair rather than discard
- ▶ Cancel unnecessary mails, Switch to paperless billing
- ▶ Ditch the plastic bags
- ▶ Stop using disposable plates, cups
- ▶ Newspaper lining for dustbins
- ▶ Swap to bamboo toothbrush
- ▶ Start composting
- ▶ Declutter and Donate



## My Waste My Responsibility

### Community Responsibility



## Stainless steel

- Tough and easy to clean, stainless steel options for reusable food and beverage storage have multiplied in recent years.

## Glass

- While not biodegradable, glass is inert, inexpensive and infinitely recyclable. And since many food items come packaged in glass, upcycling glass jars into food storage is a no-cost way to give your food packaging new life. Jars from jam, honey, pickles, nut butters, and so much more can be used. They can also be repurposed to store other items at home.



## Wood

- Wood a renewable resource can be used for a variety of work at household items like cleaning brushes, kitchen utensils, and cutting boards.

## Paper

- In earlier times paper was used as a packaging material. Although paper is not infinitely recyclable because its fibres get shorter every time it is re-used, limiting its use.

## ***Switch to non-liquid soaps***

- Liquid soaps, shampoos, and detergents have adds enormous amounts of plastic waste to the environment. Look for bar soap if possible.

## Cast Iron and Earthen Cookware

- Utensils coated with Teflon can pose health risks over a period of continuous usage. While these vessels are unlikely to produce any immediate symptoms that could be indicative of harmful activity, the non-stock coating often begins to break down over time, releasing toxic perfluorocarbons into the surrounding air and the food.
- opt for traditional cookware made of cast iron and clay.



## Bamboo Toothbrushes

- Plastic toothbrushes are the second largest plastic waste generated after plastic bags. Just in India, more than 150 million plastic toothbrushes are thrown into the garbage every month. Each part of toothbrush even bristles is made from petroleum-based plastic, which does not biodegrade for thousands of years.
- So while switching to a bamboo toothbrush may seem like a small change, the stats above show that we could all make a big difference to the planet if we choose alternatives that are a whole lot better for the environment



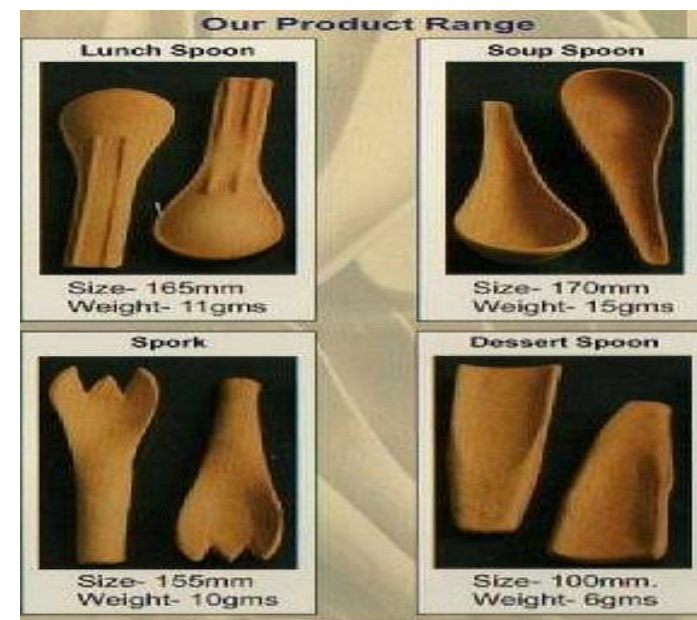
## Clay bottles

- Plastic bottles used to store water take around 1,000 years to biodegrade and produce toxic fumes upon incineration, meaning most plastic water bottles simply end up becoming litter. When you add to this to the fact that plastic from the bottles often leaches into water over time, it makes more sense to switch to eco-friendly alternatives.
- Handmade, reusable and biodegradable, clay bottles not only make for a better and healthier alternative, they also help keep the water cool. In fact, clay pots have been used in India for eons to keep the temperature of stored ware low despite the scorching summer heat



## Edible Cutlery

- Disposable plastic cutlery is a huge contributor to the enormous problem of plastic pollution, making it imperative that we start using green substitutes such as edible cutlery
- “Just throw the spoons in mud or in a potted plant to decompose after use if you do not wish to eat it,” The spoons are nutritious, use no preservatives and have a shelf life of almost three years.



- **Biodegradable Bags**

- Plastic bags have already created a lot of nuisance all around the world.
- A good choice would be Envigreen, whose seemingly plastic bags are made from tapioca and make for animal fodder when trashed.



- **Bamboo and Wheat Straws**

- The dangers of a plastic straw can hardly be overestimated. In the time that it takes for the biodegradable straws to completely decompose, their plastic counterparts would have barely disintegrated. These small fragments of plastic would seep into the soil and water, polluting the ecosystem, choking marine life that mistook it for food and eventually entering the food chain that takes them back to humans.
- One of the leading names in the manufacturing of biodegradable (and reusable) straws is Pappco Greenware, which specialises in making bamboo and wheat straws.



## Mitticool Fridge

- A natural zero-electricity refrigerator made entirely from clay that cools water and can be used to store vegetables. Sounds awesome, right.
- The Mitticool refrigerator preserves the original taste of fruits and vegetables. During testing, the shelf life of coriander was extended by 4 days as against 1.5-2 days in room temperature. Shelf life of vegetables like brinjal & chilly was increased on an average by 5-6 days room temperature.



## Biodegradable Sanitary Napkins

- Every month, over a billion non-compostable sanitary pads are dumped into sewerage systems, landfills, fields and water bodies in India, posing huge environmental and health risks. Made with more than 90% plastic – including super absorbent polymers and non-woven plastic components – soiled napkins stay in the landfills for about 800 years!
- Indian government's interim solution to the problem is 'incineration'. However, there is no provision for monitoring the emissions from these incinerators. Much more sustainable alternative are reusable cotton sanitary napkins and menstrual cups.



- Initially all shop keepers will be requested to ask all customers either they should have cloth bag with them or they should buy a new one. Only then they can start shopping.
- For meat and fish shops the sellers should be insisted to provide only decomposable plastics bags.
- Carry any sort of bags which is convenient and is sufficiently strong enough. Reusable bags are not just for groceries! Carry them for all your purchases, from electronics to clothing
- Bottled water is not only about just packed water. It requires tremendous resources to extract, bottle, and ship it. Better to go with a stainless steel bottle or stainless steel bottle mug.
- 
- Plastic may leach chemicals into the water and aluminium bottles are lined with an epoxy resin, some of which has also found to leach into water depending on the brand.

- Request takeout places use your container instead of their disposable one.
- Try avoiding packed juices, soda, and other plastic-bottled beverages and better to have some fresh juice and fruits directly.
- Farmers market are a best way to buy fresh items without plastic, as long as you remember to bring your own bags.
- Ideally speaking the fruits and vegetable of farmers do not even have those little plastic stickers on them.
- Try to carry your own container while buying meat or whole foods from a shop.
- Cookware coated with Teflon or other resins give off toxic perfluorochemicals when heated.
- When a plastic breaks, try to repair it instead of buying a new one.

- For children try avoiding buying plastic toys and promote them to take interest in wooden toys.
- Always try to carry your daily essentials with you so that anytime you need them they are with you. And you need not to buy them again.

- As you eliminate plastic from your life, you're not only cutting your own contribution to the waste stream, you're modelling more sustainable living for those around you.
- Celebrate your successes and help spread the word about how important it is to re-evaluate our daily habits and what we expect from the companies we buy from.
- As demand for more sustainable business practices grows, companies will continue to respond and the massive increase in plastics use can reverse course—the sooner the better.



## Environment, Health & Safety Regulatory News Updates.....

### !!News Update!!

**03.02.22** CPCB has Directed to all SPCB/PCC vide letter no. F.N. B.17011/7/UPC-II-PWM(SUP)/2022 dt. 01 February 2022 regarding **“Assessment of Phasing Out Single Use Plastic (SUP).**

Key Directions are as below:

1. SPCB/PCC can **revoke Air/Water Consents** /Registration of all SUP Manufacturing companies.
2. All SUP Manufacturers must have **Zero Inventory** of banned SUP items before July 01, 2022.
3. SPCB/PCC will ensure through Informal/Formal/Suppliers/Stockists/Dealers/Others not to supply Raw Materials to SUP manufacturing companies. E-Commerce companies shall **discontinue selling of banned SUP items** before



Microsoft Edge  
PDF Document

# Don't

# Plastic carry bags irrespective of thickness



# Plastic sheets (sheets used as table spread)



# Styrofoam/Thermocol plates and cups



# Styrofoam based Decorative Items



# Single-use Plastic Cups, Plates, Tumblers



# Plastic Spoon, Fork, Straw, Stirrer



# Plastic-coated Paper Cups, Plates, Bowls, Bags



# Non-Woven Bags



# Plastic flags, plastic bunting



# Plastic water pouches, non-branded plastic juice packets



# PET/PETE Bottles (Drinking Water) less than as per weight



# Garbage Bags (Plastic)



# PVC Flex Material



# Plastic Packets used for packing fruits and vegetables



# Do

## **PROPOSED LIST OF ALTERNATIVES ON BAN OF SINGLE USE PLASTIC PRODUCTS**

- 1. Plantain leaves, Areca nut Plates**
- 2. Paper Rolls**
- 3. Lotus leaves**
- 4. Glass / Metal tumblers**
- 5. Bamboo/Wooden Products**
- 6. Paper Straw**
- 7. Cloth/Paper/Jute Bags**
- 8. Paper/Cloth Flags**
- 9. Ceramic ware**
- 10. Edible Cutlery**
- 11. Earthen Pots**

# Plantain leaves, Areca nut Plates



# Paper Rolls



# Lotus leaves



# Glass / Metal tumblers



# Bamboo/Wooden Products



# Paper Straw



# Cloth/Paper/Jute Bags



Source: nite



# Paper/Cloth Flags



# Ceramic ware



# Edible Cutlery



# Earthen Pots





# E Waste क्या है

- E Waste या फिर Electronic Waste और कछ नहीं बल्कि उन्ही electrical goods का कहा जाता है जिन्हें की हम इस्तमाल करने के बाद Dump या discard कर देते हैं. जैसे जैसे हमारी जनसंख्या बढ़ रही है वैसे वैसे हमारी जरूरतें जिसके चलते E Waste की मात्रा भी बढ़ रही है।
- हर साल करीब 50 million ton की e-waste पैदा हो रही है. जिन्हें की अगर सही तरीके से manage नहीं किया गया तब भविष्य में यह एक बड़ा खतरा बनकर उभर सकता है.
- E-waste, या electronic waste, उन waste को कहा जाता है जो की कोई भी electronics पार्ट्स हो सकती हैं computers, mobile phones, से household electronics जैसे की food processors, assure, cookers तक.

# ई कचरा क्या है

- E waste का full form है Electronic wastes. ये उन electronic goods को refer जिन्हें हम कभी इस्तमाल किया करते थे अपने सुविधा के लिए लेकिन वो अब खराब हो जाने से उन्हें अब हम और इस्तमाल नहीं करते हैं।
- चूँकि technology में काफी advancement हो रही है इसलिए पुरानी devices नए के आने से obsolete हो जाते हैं।
- E-waste हमारे किसी भी electrical या electronic सामान जैसे की :computers, TVs, monitors, cell phones, PDAs, VCRs, CD players, fax machines, printers, इत्यादि से बनते हैं।
- प्रायः electronics अगर उन्हें सही तरीके से disposed नहीं किया गया तब वो बहुत से harmful materials जैसे की beryllium, cadmium, mercury और lead जैसे produce करते हैं। ये materials खुद decompose तो नहीं होते हैं बल्कि ये हमारे पर्यावरण के लिए एक बड़ा खतरा बनकर उभरते हैं। इसलिए इनका सही और efficient रूप से recycle करना बहुत ही जरूरी है।



# ई-कचरा के मुख्य स्रोत क्या हैं

## White Goods

इसके अंतर्गत घर में स्थित household materials जैसे की air conditioners, washing machines और air conditioners आते हैं.

## Brown Goods:

इसके अंतर्गत televisions, Cameras, इत्यदि आते हैं.

## Grey Goods:

इसके अंतर्गत computers, scanners, printers, mobiles phones इत्यदि आते हैं.

# E-Waste Generation के मुख्य कारण क्या हैं

बढ़ती आबादी जिसके कारण बढ़ती जरूरतें एक बहुत बड़ा कारण है E Waste के पैदा होने का. इसके अलावा कुछ ऐसे और भी कारण हैं जो की मिलकर इसे एक बहुत बड़ा खतरा बना रहे हैं. वो कहते हैं न की किसी भी चीज का अत्यधिक होना अपने आप में एक disaster होता है. तो चलिए ऐसे ही कुछ मुख्य कारणों के ऊपर चलिए गौर करते हैं -





## Reasons for E waste generation

### 1. Technology :

- technology के चलते नए products और appliances market में आ रहे हैं जिससे की लोग अब और पुराने चीज़ों को खराब न हुए होते हुए भी इस्तमाल नहीं करना चाहते हैं।

### 2. Development :

- अगर हम अभी की बात करें तब, तब ये estimate किया जा सकता है की इस दुनिया में करीब 1 billion से भी ज्यादा personal computers मेहजुद हैं. वहीं developed countries में इनकी average life span केवल 2 years की ही होती है।

### 3. Behaviour:

- Computer के बिक्री में बढ़ोतरी होना, यदि उसे सही तरीके से लम्बे समय तक इस्तमाल नहीं किया गया तब ये आखिरकार E Waste ही बन जाता है।
- जब एक इलेक्ट्रॉनिक उत्पाद obsolete हो जाता है तो हम इसे बदलने के बजाय इसे अपने घरों में रखते हैं जो अंततः ई-कचरा बन जाता है

# ई कचरा का प्रभाव Environment के ऊपर

हमें अभी तक भी इन E-waste का improper disposal पर्यावरण में क्या होता है सही रूप से पता नहीं है लेकिन ये बात तो निश्चित है की इनका प्रवाह बड़े मात्रा में एक भयंकर रूप ले सकता है.

## Effects on air (हवा में)

- एक बहुत ही common effect E-waste का होता है हवा में air pollution के द्वारा. हम सभी जानते हैं की इन electronic waste में ऐसे बहुत से चीजें आते हैं wires, blenders और बहुत कुछ जिन्हें की पाने के लिए लोग इस जला डालते हैं जिसके चलते वायु प्रदुसन का होना एक आम सी बात है।

## Effects on water (पानी में)

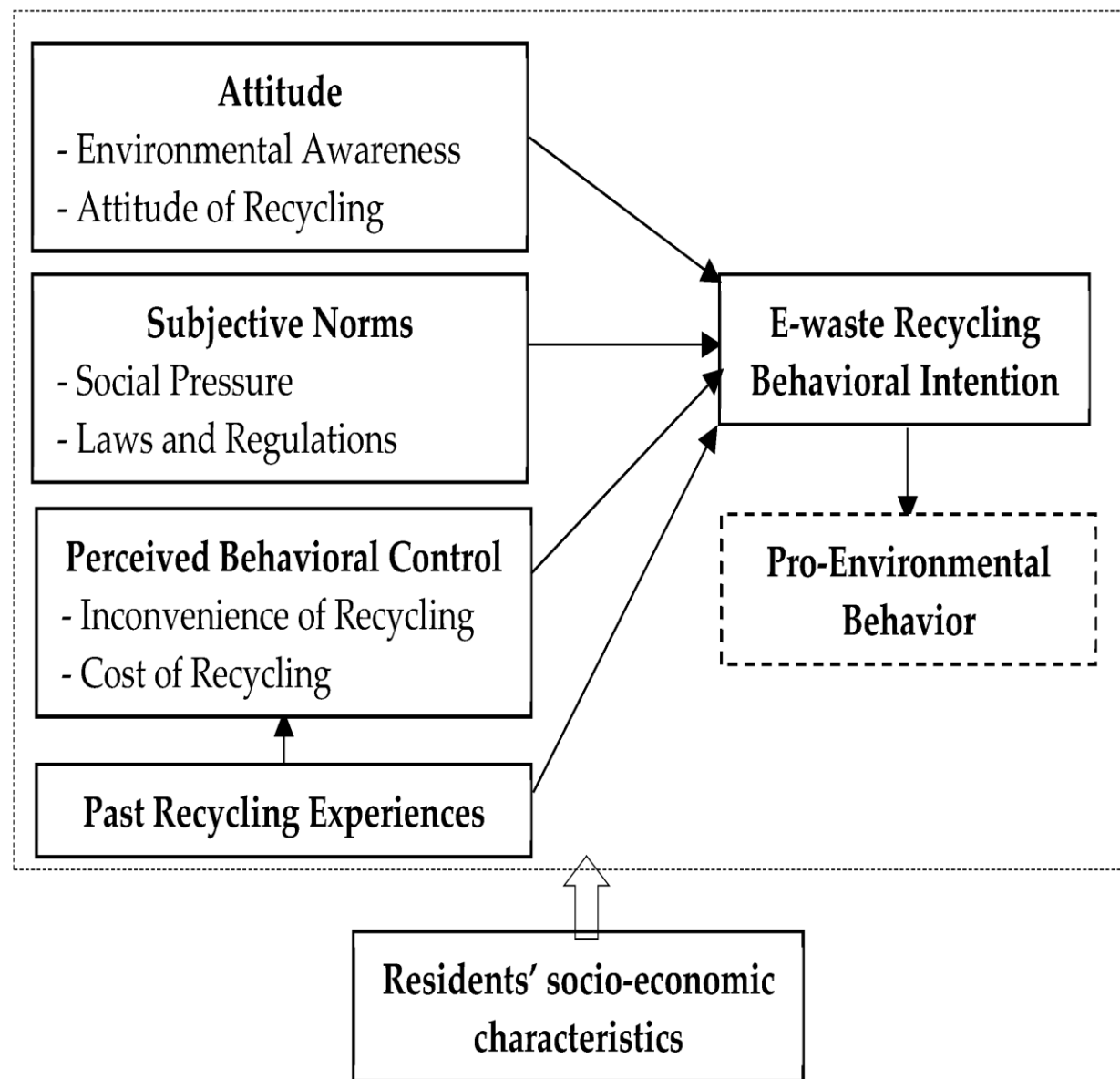
- जब इन electronics जिसमें की heavy metals जैसे की lead, barium, mercury, lithium (जो की mobile phone और computer batteries) होती हैं, अगर इन्हें सही रूप से dispose नहीं किया गया तब ये heavy metals मिट्टी से मिलकर groundwater channels तक पहुंच सकती है जो की आगे चलकर surface में स्थित streams और small ponds में जाकर मिल जाती हैं. जो Local communities इन water sources के ऊपर निर्भर करते हैं उन्हें इन chemicals का direct प्रवाह होता है जिसके चलते उन्हें कई बीमारियां भी होती है. इस तरह से आगे चलकर ये जल प्रदुषण का रूप लेता है।

## Effects on soil (मिट्टी में)

- अगर सही रूप से e waste को disposed नहीं किया गया तब इसमें स्थित toxic heavy metals और chemicals हमारे "soil-crop-food pathway" में घुस जाते हैं जिससे की ये heavy metals मनुष्यों के संस्पर्श में आते हैं. ये chemicals biodegradable नहीं होते हैं, इसको मतलब है की ये environment में लम्बे समय तक मेहजुद रहते हैं जिसके चलते इसके risk of exposure बहुत मात्रा में बढ़ जाती है. इन chemicals का मनुष्यों और दुसरे जीवित प्राणियों के ऊपर बहुत खराब दुश्प्रवाह होता है

# E- Waste को कैसे Control करें

- Electronic Products के donation से, हम कोई भी चीज़ का reuse कर सकते हैं जिससे की pollution को बहुत हद तक रोका जा सकता है. ऐसा इसलिए क्योंकि हो सकता है की जो चीज़ आप इस्तमाल न कर रहे हों वो किसी दुसरे के लिए बहुत जरूरी हो.
- वैसे E-waste recycler तो बहुत है लेकिन उनमें से सही recycler का पता लगा पाना थोडा मुस्किल है लेकिन अगर हम certified E-waste recycler का इस्तमाल करें तो इससे प्रदुषण बहुत ही कम होगा, और ये हमारे पर्यावरण के लिए Safe भी है.
- अगर हम सभी मिलकर ये प्रण लें की हम E- Waste से अपने environment को खराब नहीं होने देंगे और इन Electronic वस्तुओं का judiciously इस्तमाल करेंगे क्योंकि ये E waste न केवल हमारे पर्यावरण को दूषित करते हैं बल्कि हमें भी नुकसान पहुंचाते हैं.



# Recycling के क्या benefits हैं

- अगर Recycling के मदद से इन्हें अच्छे से Managed किया जाये तब, E-waste हमारे लिए raw materials का एक secondary source भी बन सकता है और इसके साथ इसके बहुत सारे दुसरे benefits भी हैं जैसे की :-
- **Economic Benefits**  
इन recovered materials से हम अच्छा खासा Revenue generation कर सकते हैं.
- **Environmental Benefits**  
इससे बहुत हद तक Natural resource का conservation भी हो सकता है और इसके साथ environmental pollution में काफी हद तक कमी भी लायी जा सकती है.
- **Social Benefits**  
ऐसे recycling process के लिए human labour की भी जरूरत पड़ती है जिससे की Employment generation हो सकता है.
- हमें Recycle क्यों करना चाहिए?
- इस धरती के Natural resources पूरी तरह से limited हैं और इसलिए हमें ये ध्यान देना चाहिए की हम इसे preserve करें और इसका carefully इस्तमाल करें.
- इससे हम Landfill होने से रोक सकते हैं.
- इससे हम अपने धरती को वायु, जल और स्थल प्रदुषण से रोक सकते हैं.
- इसके अलावा इससे Employment opportunity भी पैदा होती है.



# What is the Draft Notification for Electronic Waste Management?

- **Electronic Goods Covered:** A wide range of electronic goods, including laptops, landline and mobile phones, cameras, recorders, music systems, microwaves, refrigerators and medical equipment have been specified in the notification.
- **E-Waste Collection Target:** Consumer goods companies and makers of electronics goods have to ensure at least 60% of their electronic waste is collected and recycled by 2023 with targets to increase them to 70% and 80% in 2024 and 2025, respectively.
  - Companies will have to **register on an online portal** and specify their annual production and e-waste collection targets.
- **EPR Certificates:** The rules bring into effect a **system of trading in certificates, akin to carbon credits, that will allow companies to temporarily bridge shortfalls.**
  - The rules lay out a system of companies securing **Extended Producer Responsibility (EPR) certificates.**
  - These certificates **certify the quantity of e-waste collected and recycled in a particular year by a company and an organisation** may sell surplus quantities to another company to help it meet its obligations.
- **Focus on Circular Economy:** New Rules emphasizes on the EPR, recycling and trading.
  - This follows from the government's objective to promote a **Circular Economy.**
- **Penalty:** Companies that **don't meet their annual targets will have to pay a fine or an 'environmental compensation'** but the draft **doesn't specify the quantum of these fines.**
- **Implementing Authority:** The **CPCB (Central Pollution Control Board)** will oversee the overall implementation of these regulations.
- **Responsibility of the State Governments:** The State governments have been entrusted with the responsibility of earmarking industrial space for e-waste dismantling and recycling facilities, undertaking industrial skill development and establishing measures for protecting the health and safety of workers engaged in the dismantling and recycling facilities for e-waste.

# Information technology and telecommunication equipment :

- Centralised data processing: Mainframes, Minicomputers.
- Personal Computing: Personal Computers (Central Processing Unit with input and output devices)
- Personal Computing: Laptop Computers(Central Processing Unit with input and output devices).
- Personal Computing: Notebook Computers.
- Personal Computing: Notepad Computers
- Printers including cartridges.
- Copying equipment.
- Electrical and electronic typewriters .
- User terminals and systems.
- Facsimile.
- Telex.
- Telephones.
- Pay telephones.
- Cordless telephones
- Cellular telephones
- Answering systems.
- Centralised data processing: Mainframes, Minicomputers.
- Products or equipment of transmitting sound, images or other information by telecommunications
- BTS (all components excluding structure of tower)
- Tablets, I-PAD
- Phablets
- Scanners
- Routers
- GPS
- UPS
- Inverter
- Modems
- Electronic data storage devices

# Consumer electrical and electronics:

- Television sets (including sets based on (Liquid Crystal Display and Light Emitting Diode technology).
- Refrigerator.
- Washing Machine.
- Air-conditioners excluding centralised air conditioning plants.
- Fluorescent and other Mercury containing lamps.
- Screen, Electronic Photo frames, Electronic Display Panel, Monitors
- Radio sets
- Set top Boxes
- Video Cameras
- Video Recorders
- Hi-Fi Recorders
- Audio Amplifiers
- Other products or equipment for the purpose of recording or reproducing sound or images including signals and other technologies for the distribution of sound and image by telecommunications
- Solar panels/cells, solar Photovoltaic panels/cells/modules.
- Luminaires for fluorescent lamps with the exception of luminaires in households
- High intensity discharge lamps, including pressure sodium lamps and metal halide lamps
- Low pressure sodium lamps
- Other lighting or equipment for the purpose of spreading or controlling light excluding filament bulbs
- Digital camera

# Large and Small Electrical and Electronic Equipment

- Electric fans
- Other fanning, exhaust ventilation and conditioning equipment
- Vacuum cleaners
- Carpet sweepers
- Other appliances for cleaning
- Appliances used for sewing, knitting, weaving and other processing for textiles
- Iron and other appliances for ironing, mangling and other care of clothing
- Grinders, coffee machines and equipment for opening or sealing containers or packages
- Smoke detector.
- Thermostats
- Automatic dispensers for hot drinks.
- Automatic dispensers for hot or cold bottles or cans.
- Automatic dispensers for money
- Indoor air purifier.
- Electric shaver
- Large cooling appliances
- Freezers
- Other large appliances used for refrigeration, conservation and storage of food
- Clothes dryers
- Dish Washing Machines
- Electric cookers
- Electric stoves
- Electric hot plates
- Microwaves, Microwave Oven
- Other large appliances used for cooking and other processing of food
- Electric heating appliances
- Electric radiators
- Other large appliances for heating rooms, beds, seating furniture
- Heating Regulators
- Automatic dispensers for solid products
- All appliances which deliver automatically all kinds of products
- Hair dryer
- Electric kettle.
- Electronic display panels/board/visual display unit

# Electrical and Electronic Tools (With the exception of large- Scale Stationary Industrial Tools)

- Drills
- Saws
- Sewing Machines
- Equipment for turning, milling, sanding, grinding, sawing, cutting, shearing, drilling, making holes, punching, folding, bending or similar processing of wood, metal and other materials
- Tools for riveting, nailing or screwing or removing rivets, nails, screws or similar uses
- Tools for welding, soldering, or similar use.
- Equipment for spraying, spreading, dispersing or other treatment of liquid or gaseous substance by other means.
- Tools for mowing or other gardening activities

# Toys, Leisure and Sports Equipment

- Electrical trains or car racing sets
- Hand-held video games consoles
- Video games
- Computers for biking, diving, running, rowing, etc.
- Sports equipment with electric or electronic components
- Coin slot machines

# Medical Devices (With the Exception of All Implanted and Infected Products)

- Radiotherapy equipment and accessories.
- Cardiology equipment and accessories.
- Dialysis equipment and accessories.
- Pulmonary ventilators and accessories
- Nuclear Medicine Equipment and accessories.
- Laboratory equipment for in vitro diagnosis and accessories.
- Analysers and accessories.
- Magnetic Resonance Imaging (MRI), Positron Emission Tomography (PET) Scanner, Computed Tomography (CT) Scanner, & Ultrasound Equipment along with accessories.
- Fertilization tests equipment and accessories
- Other electric appliances/equipment/kits used for preventing, screening, detecting, monitoring, evaluating, reviewing, examining, investigating, probing, treating illness sickness, disease, disorder, affliction, infection, injury, trauma, abuse or disability including the Mobiles, Tablets or any other device with the features having the potential of sex selection and their accessories

# Laboratory Instruments

- Gas analyser
- Equipment having electrical and electronic components

# Thank you