



Repairability Index for Mobile and Electronic Sectors

For Prelims: [E-waste](#), [Planned Obsolescence](#), [Grey Markets](#), [Right to Repair](#), [European Union](#), [Circular Economy](#), [Repairability Index](#), [Right to Repair Portal India](#), [Intellectual Property](#).

For Mains: Significance and Challenges Associated with the Right to Repair, Need of Circular Economy.

Source: [PIB](#)

Why in News?

Recently, the **Department of Consumer Affairs (DoCA)** under the Ministry of Consumer Affairs, Food & Public Distribution hosted a **National Workshop on the Right to Repair Framework for the Mobile and Electronic Sectors**.

- It discussed the launch of a **"Repairability Index"** for **mobile phones and electronic products** to help consumers make **informed decisions** before purchasing them.
- The initiative aims to address the growing **e-waste problem** and encourage manufacturers to produce more **easily repairable items**.

What are the Key Highlights of the Workshop?

- **Objective of the Workshop:** The workshop aimed to create a **consensus** among industry stakeholders on establishing a **repairability index, promoting product longevity, and democratising repair information** to enhance consumer experiences in reusing mobile and electronic products.
 - It helps **prevent** the need for consumers to **buy new products** due to a lack of repair options or high repair costs.
- **Addressing Planned Obsolescence:** The discussions focussed on combating the practice of **"planned obsolescence,"** where manufacturers **restrict access to essential repair information, repair manuals/videos, and spare parts**.
 - It highlighted that the **lack of repair information and spare parts availability** forces consumers to abandon their devices and buy new ones, or to seek risky counterfeit parts from **grey markets (unofficial market)**.
- **International Best Practices:** The sessions emphasised integrating **international best practices** from France, the **European Union**, the United Kingdom and designing products for longevity to enhance repairability.
 - Discussions covered the importance of sustainable product design, **ecological concerns**, and the need to shift from a **"use and dispose"** economy to a **"circular economy"** and promote **"mindful utilisation"** over **"mindless consumption."**

What are the Key Facts about the Repairability Index?

- **Definition:** The repairability index is a **mandatory label** that manufacturers will display on electrical and electronic equipment **to provide information about the product's repairability**.

- **Criteria for Rating Products:** The reparability index will evaluate products based on:
 - **Availability of Technical Documents:** Access to **manuals and guides** that assist in repairing the product.
 - **Ease of Disassembly:** How easily a product can be taken apart to access and repair components.
 - **Availability and Pricing of Spare Parts:** How readily available spare parts are and their cost to consumers.
- **Scoring System of the Repairability Index:** Products will be scored on a **scale from 1 to 5**.
 - **Score of 1:** Products with a **high risk of damage** and that require dismantling multiple components to access a single part.
 - **Score of 5:** Products that are **easy to repair**, with direct access to key parts like the **battery or display without unnecessary disassembly**.

What is the Right to Repair?

- **About:** The right to repair for **consumer goods refers** to allowing **end users, consumers as well as businesses**, to repair devices they own or service without any manufacturer or technical restrictions.
 - It **prevents manufacturers from restricting repairs** to their authorised services by limiting access to tools, parts, and documentation.
- **Features of the Right to Repair:**
 - **Access to Information:** Consumers should have **access to repair manuals**, schematics, and software updates.
 - **Availability of Parts and Tools:** Third parties and **individuals should be able to access the necessary parts** and tools for repairs.
 - **Legal Unlocking:** Consumers should be allowed to **unlock or modify devices, such as installing custom software**.
 - **Repair-Friendly Design:** Devices should be designed for easy repair.
- **Need of the Right to Repair:**
 - **Growing e-waste:** The difficulty in repairing devices leads to an increase in **electronic waste**.
 - India is the world's **third largest contributor** to e-waste, with roughly **3.2 million metric tonnes** of e-waste created every year, **trailing only China and the United States**.
 - **Monopoly of Repairs:** Manufacturers often create barriers to **third-party repairs**, which **limits consumer choice** and increases costs.
 - **Planned Obsolescence:** Companies design products with a limited lifespan to encourage **frequent replacements**.
 - **Sustainability:** It will help **to achieve circular economy goals** by extending the life of appliances and improving their maintenance, reuse, upgrading, recyclability, and waste handling.

What Initiatives are Taken to Ensure the Right to Repair?

- **Right to Repair In India:**
 - The **Department of Consumer Affairs** has formed a committee chaired by **Nidhi Khare** that led to the creation of **Right to Repair Portal India**.
 - It serves as a **single platform** to provide easy access to necessary information on the repair and maintenance of products to consumers.
 - Sectors covered on this portal are **farming equipment, mobile and electronics, consumer durables and automobile equipment**.
 - As of now, **63 companies** have been **onboarded** to the portal, including **23** from the **mobile and electronics sector**, offering information on repair options, authorised repairers, and sources of spare parts.
- **Right to Repair in Other Countries:**
 - **United States:** The **Fair Repair Act of 2022** requires companies to provide **patented tools** and remove software restrictions that prevent users from repairing their own products.
 - **European Union:** The **Right to Repair Rules 2019** aims to establish a **circular**

- **economy** of digital products, giving users access to repair tools to repair consumer appliances.
- **United Kingdom: Right to Repair Regulations 2021** ensure spare parts are available for up to **ten years** after product release.
- **Australia:** Volunteer repairmen gather at **“Repair Cafes”** to share their skills with people who bring in their goods.

What are the Challenges Involved in Implementing the Right to Repair?

- **Opposition from Tech Companies:** Companies like [Apple, Microsoft, and Tesla](#) argue that the right to repair could compromise **security, intellectual property, and product quality**.
 - User safety, **shrinking technology size**, and reduced incentives for innovation are points of Concern.
- **Shrinking Technology:** Every year, technology shrinks, and repairing **intricate hardware** becomes less obvious to the average person.
 - While older technology could be repaired with common tools available at any hardware store, **modern technology is smaller and more nuanced in comparison**.
 - They frequently **necessitate the use of specialised tools that are not widely available** and may even necessitate licensing.
- **No Incentive to Innovate:** [Original Equipment Manufacturers \(OEMs\)](#) continually push for **new technology** as it benefits them.
 - OEMs argued that **innovation will take a back seat if people prefer repairing** gadgets over upgrading them.
- **Efficiency:** Modern **technological products** are designed to be as efficient as possible within their given form factor. Making it easier to repair would require **lowering its efficiency**.
- **Security and Privacy:** Allowing third-party access could lead to **a security breach of users’ data**.

Way Forward

- **Fair Access to Repair Tools and Information:** Manufacturers could be encouraged or required to **make repair manuals, diagnostic tools, and spare parts more accessible** to certified independent repair shops.
 - This would also **help consumers by providing them with the necessary resources** for repairs.
- **Balancing Efficiency and Repairability in Product Design:** Manufacturers should aim for a balanced approach between **product efficiency and repairability**.
 - This could be achieved by designing modular components that are easier to repair or replace without significantly affecting the device's overall performance.
- **Incentivizing Innovation and Research:** To maintain innovation momentum, governments could provide incentives such as **tax breaks, grants, or subsidies** for companies that invest in research and development while also supporting repairable product designs.

Drishti Mains Question:

Q. Discuss the concept of the 'Right to Repair' and its implications for consumer rights, environmental sustainability, and innovation.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. In India, ‘extend producer responsibility’ was introduced as an important feature in which of the following? (2019)

(a) The Bio-medical Waste (Management and Handling) Rules, 1998

(b) The Recycled Plastic (Manufacturing and Usage) Rules, 1999

(c) The e-Waste (Management and Handling) Rules, 2011

(d) The Food Safety and Standard Regulations, 2011

Ans: (c)

Q. Due to improper/indiscriminate disposal of old and used computers or their parts, which of the following are released into the environment as e-waste?(2013)

1. Beryllium
2. Cadmium
3. Chromium
4. Heptachlor
5. Mercury
6. Lead
7. Plutonium

Select the correct answer using the codes given below:

(a) 1, 3, 4, 6 and 7 only

(b) 1, 2, 3, 5 and 6 only

(c) 2, 4, 5 and 7 only

(d) 1, 2, 3, 4, 5, 6 and 7

Ans: (b)

Mains

Q. What are the impediments in disposing of the huge quantities of discarded solid waste which are continuously being generated? How do we safely remove the toxic wastes that have been accumulating in our habitable environment? **(2018)**

Q.“The growth of cities as I.T. hubs has opened up new avenues of employment, but has also created new problems”. Substantiate this statement with examples **(2017)**