



Promoting Circular Economy

This editorial is based on [“Circular Economy - Is India Ready to Come Full Circle in Sustainability?”](#) which was published in The Hindu BusinessLine on 28/12/2022. It talks about the significance of Circular Economy and major challenges that are associated with its promotion.

For Prelims: Circular Economy, Battery Waste Management Rules 2022, Plastic Waste Management (Amendment) Rules 2022, e-Waste Management Rules 2022, EPR Certificates

For Mains: Circular Economy - Significance, Challenges and Measures that can be taken to promote it.

In recent years, the concept of [Circular Economy \(CE\)](#) has gained increasing attention as a way to **address a range of environmental and economic challenges**. With the growing recognition of the **finite nature of many resources** and the **negative impacts of waste and pollution**, the circular economy offers a more **sustainable and resilient alternative to the traditional linear model of economic growth**.

Governments, businesses, and other organizations around the world are increasingly **exploring ways to adopt circular practices** and transition to a more circular economy. The [COP27](#) meet also brought to fore the **circular economy's relevance in mitigating carbon emissions for India** by ensuring responsible consumption and **sustainable resource management**.

What is A Circular Economy?

▪ About:

- A Circular Economy is the one **where products are designed for durability, reuse and recyclability** and thus **almost everything gets reused, remanufactured, and recycled** into a raw material or used as a source of energy.
- It includes **6 R's - Reduce, Reuse, Recycle, Refurbishment, Recover, and Repairing of materials**.

▪ Need for Circular Economy:

- CE focuses on **minimising waste while maximising utilisation** and calls for a production model aiming to retain the most value to create a system that **promotes sustainability, longevity, reuse, and recycling**.
- Though India has always had a culture of recycle and reuse, its **rapid economic growth, growing population**, impact of climate change and rising environmental pollution, the adoption of a circular economy is more imperative now.
- CE can lead to the **emergence of more sustainable production and consumption patterns**, thus providing opportunities for developed and developing countries to achieve economic growth and **inclusive and sustainable industrial development (ISID)** in line with the [2030 Agenda for Sustainable Development](#).

- **Global Response to Circular Economy:**
 - **Germany and Japan have used it as a binding principle** for reorganising its economy, whereas **China even has a law on it** (Circular Economy Promotion Law).
- **India's Initiatives to Promote Circular Economy:**
 - The **2022-23 Budget** recognised the importance of sustainable growth and in sync with a circular economy, the government formulated:
 - **Battery Waste Management Rules 2022**
 - **Plastic Waste Management (Amendment) Rules 2022**
 - **e-Waste Management Rules 2022**
 - These rules **set out target waste disposal standards** for manufacturers, producers, importers, and bulk consumers, along with enabling transactions among stakeholders for **Extended Producer Responsibility (EPR) certificates**.
 - Action plans were also formulated across 10 sectors including **e- waste, lithium-ion batteries, end-of-life vehicles, scrap metal, municipal solid waste**, etc. emphasising the importance of **reusing secondary materials**.

What are the Roadblocks to Achieving Circular Economy?

- **Unclear Vision for CE:** Despite the Government's policy efforts the progress has been underwhelming; one of the major challenges is the **lack of a clear vision towards the end-goal of India's circular economy mission and gaps in actual implementation of the policies**.
 - Also, the **efforts for promoting CE are made at the very end of value chains**, resulting in sub-optimal economic and environmental outcomes.
- **Reluctance of Industries:** The Industries are reluctant in adopting the circular economy model **due to supply chain limitations, lack of incentives** to invest, **complex recycling processes** and **lack of information to support participation** in reusing/ recycling/re-manufacturing processes.
- **Lack of Awareness and Understanding:** Many **people in India are not aware of the concept** of a circular economy and its benefits making it **difficult to gain support** for implementing circular economy initiatives.
- **Infrastructure Challenges:** India's infrastructure is **not well-suited to support a circular economy**. For example, there is a **lack of recycling facilities**, which makes it difficult to recycle and reuse materials.
- **Cultural Challenges:** There is a **cultural resistance to the idea of reusing and recycling products** in India making it **difficult to change consumer behaviour** and shift towards a circular economy.

What Steps can be Taken to Promote Circular Economy?

- **Statutory Reforms:** The challenges mentioned above may be overcome through **legislative mandates for the procurement of recycled/ secondary raw materials** in the initial stages of the production cycle, **developing a unified legislation** addressing the circular economy from a regulatory perspective.
 - A streamlined framework on **circular economy reporting, clarifying the mechanism surrounding trading** of EPR certificates and **providing fiscal incentives to businesses** to complete the supply chain will also help.
- **Syncing Laws with Implementation Strategies:** The government's initiatives need to be in **conjunction with implementable actions with industry collaboration** to reap the benefits of the circular economy.
 - A combination of the government's current efforts along with **relevant implementation strategies** will instil a sense of confidence in businesses to adopt the circular model of production.
- **R&D Investments:** The **renewable energy industry should invest in the research and development** of recycling technologies. Investments in R&D could **help discover new ways of recycling** that result in **higher efficiency** and a **less environmentally damaging footprint**.
 - **Industries should also explore technology transfers** with global recycling firms for establishing domestic waste recycling facilities.
- **Technology Driven Recycling:** Government should **encourage R&D in the field of waste recycling** at University and School levels to **promote active participation of masses** in

technology enhancement in the field of waste management.

- Also, **composting centres can be established** in cities to reuse organic waste, which will enhance soil carbon content and **eliminate the need for chemical fertilisers**.

Drishti Mains Question

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