
INTERNATIONAL JOURNAL OF ADVANCED LEGAL RESEARCH

THE CIRCULAR ECONOMY: MESSIAH OR MIRAGE

- Anavi Shirke & Madhavraje Patwardhan¹

ABSTRACT

The circular economy is a new concept that promotes sustainable development by promoting the circular economy and ensuring sustainable development. It is based on a circular economy framework that aims to reduce the amount of waste produced by a country while ensuring the sustainability of the economy. This paper focuses on the role of the circular economy in promoting sustainable development in the context of circular economies.

INTRODUCTION

After the industrial revolution and the advent of mass production, the world experienced a surge in the indiscriminate use of non-renewable resources. This excessive usage led to the colonisation of various countries and eventually culminated in the first world war.

In various environmental summits like the Rio declaration and the Stockholm declaration, the world's leaders under the United Nations Conference on Trade and Development 2015 began working on proposals to reduce wastage in potentially large economies like India and China (*Circular economy* 2022). The motto goes “Reduce, reuse and recycle” (*Circular economy for a sustainable future | cleanaway 2021*) as opposed to the linear economic model “make-take-use-dispose”, which we have followed since the later stages of the industrial revolution. Here the term later stages have to be adequately considered, as in the early stages, the prices of goods were high, and labour prices were low. However, the indiscriminate usage started only when the cost of labour increased, and that of raw materials fell comparatively.

If something isn't usable for us, maybe it is useful for someone else, or perhaps it can be valuable for something else. Troglodytes would consume flora and fauna and excreted waste, this was used by plants and then eaten by animals, and the cycle continued. In the Hi-Tech planet, we live in, we tend to forget the simplicity and ease with which nature operates.

¹ Students at ILS Law College, Pune

WHAT IS THE CIRCULAR ECONOMY?

Countries have been becoming more and more aware of the growing problems of waste in their countries.

Unlike approaches focused on waste recovery and recycling, the circular economy proposes production and material systems without a loss of value, in which goods are designed to last, reparability is facilitated, and materials are continuously reused rather than degraded (Vence & López Pérez 2021). Encouraging the reuse and repair of goods to maximize their life span is an important strategy that involves more than the consumer at the end of the chain (Prakash et al.).

TAX POLICY RELATING TO CIRCULAR ECONOMY

The role of tax policy and the impact that it can have on consumers cannot be dismissed. Tax has been used as a tool by governments to promote goods and services in an economy by means of a subsidy or rebate. Tax is also used to curtail the use of certain goods in an economy by implementing rate hikes or surcharges. Over the last decade, tax policy has played a key role in promoting the circular economy and ensuring sustainable development.

The rationale for a tax shift towards circular taxation is based on extra-fiscality or extra-fiscal taxation (taxation with additional fiscal purposes, e.g., “sin taxes”). This emphasizes that taxation is not limited to raising revenue for the public budget but also pursues other objectives of an industrial, commercial, social, public health, or environmental nature (Vence & López Pérez 2021).

CASE STUDIES:

India

- a. Roads being built with plastic waste

Plastic roads will be most feasible for a country like India, where the temperature is around 50°C and the heavy monsoons too create havoc, leaving the roads with potholes and ruts.

It is hoped that soon will have strong, durable and eco-friendly roads that will relieve the earth from all types of plastic waste (IANS / Jul 30, *India constructed 703 km of highways using plastic waste - times of India*).

A growing number of studies say that roads containing waste plastic have the potential to perform as well or better than traditional roads. They can last longer, are more robust and durable concerning loads and rutting, tolerate wide temperature swings, and are more resistant to water damage, cracking, and potholes.

India's plastic road technology grew from experimentation done in 2001 by Prof. R.

For general queries or to submit your research for publication, kindly email us at editorial@ijalr.in

<https://www.ijalr.in/>

Vasudevan, at the Thiagarajar College of Engineering in Madurai. Recognizing the similarities between plastic and bitumen derived from petroleum, he mixed shredded plastic with gravel, then bitumen, and saw a good bonding effect. Vasudevan's method reportedly employs two types of plastic: LDPE, low-density polyethylene used in plastic bags, and PET, polyethylene terephthalate, used in soda bottles. MacRebur's McCartney recalls being in India in 2016 and noticing people repairing potholes by plugging them with plastic bags and lighting them on fire. It gave him the idea behind MacRebur (Ann Parson 2021).

India has installed over 60,000 miles of these roads. The technology of incorporating waste plastic into paving materials is likely to take a long time to evolve. While widely used in India, it is still nascent in other countries. Just 9 per cent of the 350 million tons of plastic produced yearly is recycled; this technology can reduce downstream waste.

The empirical data on how plastic roads age, still needs to be studied (Good News Network 2021).

b. Bio energy

Sustainable fuels and alternatives to the traditional sources of energy in India have been going on for a long time. The government's approach is two-pronged in this regard, firstly on electricity generation and distribution and secondly in terms of Motor vehicle consumption.

The Electricity Act of 2003 has played a crucial role in this process, helping State Electricity Regulatory Commissions promote co-generation and generation of electricity from non-conventional sources.

Most notably, the mandatory Renewable Purchase Obligation (RPO), open access to the grid for renewable sources of power, preferential tariffs by state regulators, targets for renewable energy, and decontrolled captive generation.

The government defined the Policy on Biomass utilisation for power generation through co-firing in coal-based power plants and, in September 2018, technical specifications for agro-residue-based biomass pellets for co-firing in coal-based thermal power plants.

Since 2019 the power generated from co-firing biomass in thermal power plants is Renewable energy and is eligible for meeting non-solar Renewable Purchase (*Power Ministry asks states to formulate plans for biomass co-firing in power plants*).

India also has various exemptions to solid waste management plants for converting municipal solid waste, and industrial and agricultural waste into Biogas, BioCNG, and Power. Similar benefits are also available to technologies used in sugar mills and other industries.

For general queries or to submit your research for publication, kindly email us at editorial@ijalr.in

<https://www.ijalr.in/>

All of this has furthered the reduction in the overall waste of the nation

On the other hand, India has also implemented various amendments in the central motor vehicles act of 1989 to further the use of Bio-CNG.

In June 2018 National Policy on Biofuels-2018 (NPB) was notified. The main aim of this policy is to increase the use of ethanol and other biofuels in gasoline (*Implementation of bioenergy in India*).

FRANCE

France is one of the first economies to acknowledge and deal with its poor waste management problem. Every year, €630 million worth of unsold products was estimated to be destroyed; this destruction generated 5 to 20 times more greenhouse gas emissions than reuse. In 2020, the French adopted its comprehensive anti-waste law. The main aim of the statute was to encourage the phasing out of single-use plastic eliminating waste by encouraging, reusing and supporting charitable organisations and providing transparent information to consumers. Under this, companies are encouraged to donate, recycle and reuse products rather than obliterate them; France has now become the first country to introduce a mandatory repair ability index on electronic products like smartphones and laptops (*France's anti-waste and Circular Economy Law*). The law prohibits supermarkets from intentionally destroying unsold food and requires them to label products with expiration dates. Additionally, the law encourages the development of more environmentally-friendly packaging and promotes alternative uses for unsold food, such as animal feed or compost.

The anti-waste law has been widely praised for its efforts to combat food waste and hunger, now cited as a model for other countries to follow. Since the law's implementation, food waste in France has decreased significantly, and more unsold food is being donated to those in need.

In another bit to reduce its carbon footprint, France has banned short-haul flights of 2.5 hours or less. This comes as part of the 2021 climate laws (Limb, *France given go-ahead to abolish internal flights 2022*).

UNITED STATES OF AMERICA

In America, the concept of a circular economy is gaining traction to address issues such as resource depletion, waste, and pollution. Several initiatives are underway in the United States to promote a circular economy, including programs that encourage the recycling of materials, the development of sustainable products, and the use of renewable resources.

For general queries or to submit your research for publication, kindly email us at editorial@ijalr.in

<https://www.ijalr.in/>

For example, many companies in America are now focusing on reducing waste and increasing the use of recycled materials in their products. Some cities and states have also implemented programs to promote the recycling of waste and the use of renewable energy sources (Denielleretardo, *Finding ways to become an ESG leader of Tomorrow* 2022).

Major technology companies like Google and Apple come to mind.

In America, one of the first times we see the dominance of a circular economy is because of a large corporation like Apple. Here we first see the company supposedly pandering to the wimps of the consumer by removing the charger from the phone's box. The whole point of the circular economy is to reuse rather than discard. While this seems like a brilliant strategy and aims to protect the environment, the goal of the corporations is to retain the dominance of the North bloc. This may sound like a conspiracy theory, but it may be the reality. A research paper cited here has shown that a significant deterrent to the circular economy is the heavy tax on labour. To reuse, repair and recycle, an emphasis is indirectly put on the service side by discouraging the consumer from discarding the product but by furthering its utility by consuming services. And now, coming back to the argument initially put forth, the developed economies are mainly service driven and more so the USA. Through a circular economy ploy under the grab of sustainable development, the North bloc has devised a clever way to shrowd the development and upliftment of the economic south.

While a country like India doesn't depend much on the production of goods for its exports, countries in Southeast Asia will be the most affected if the circular economy catches on. Bangladesh or Taiwan, which exports mostly items of fast fashion or cheap electronic goods using basic raw materials and unskilled labour, will be most affected. While sustainability may be the overlying idea, the truth may be more political than environmental. To curb the growth of another China, America might be the ring leader of the circular economy.

THE CIRCULAR ECONOMY AND PRODUCTION

The fundamental basis of the circular economy concept is that the production of goods is reduced and therefore the production would reduce. But there is also the reuse of materials and goods already in production. Recent analysis using Life Cycle Analysis has shown that if there is no demand for the secondary produced material the primary production still does not reduce (Zink & Geyer., 2017). Zink & Geyer (2017), call this effect “the circular economy rebound” and note a few different ways in order to mitigate this. They suggest creating a more

For general queries or to submit your research for publication, kindly email us at editorial@ijalr.in

<https://www.ijalr.in/>

competitive market for all the secondary production in terms of market, quality and price will ensure reduced primary production making the circular economy more productive.

The impact of legislation on production cannot be underestimated. Numerous economies (especially in the Global North) are in an intermediate transitional phase from a linear to a more circular economy and thus having intermediate legislation to attend to these specific issues is vital, also ensuring companies comply with this changing environmental legislation is required to ensure a successful circular economy (Kyriakopoulos, 2021). A well-rounded approach including production management, pollution control, technological development and waste management is required to tackle the issues (Kyriakopoulos, 2021). Thus the existing laws on these issues may be combined with newer legislation to facilitate better production outcomes in a circular economy.

CIRCULAR ECONOMY- A MIRAGE?

In the opinion of Foucault, a critique is said to be a failure to manage an issue in a particular way (Patton, 2005). By this definition, a critique of circular economy can be defined as an inability to fulfil the requirements needed to meet its full potential. The concept of the 5R's of the environment- recycle, reuse, rot, repair and recycle is not exactly a new concept, therefore, it one may argue that circular economy is nothing but an age-old environmental philosophy that has been partially successful; repackaged into new age marketing terminology. One of the most important criticisms of the circular economy is based on an impossible scientific basis. Even with a circular system of materials usage, creating new materials out of waste requires the usage of more resources (Lehmann et al., 2022). Lehmann et al (2022), further argue that the very basis on which the circular economy concept is based is flawed; the first law of thermodynamics mentions that within a circular economy there is always a sustained amount of energy but this energy available within the circular economy degrades the materials into a lesser available form. Thus using more resources to extract more from these materials, which do not have many resources to give. Perhaps, a better use of these resources maybe to properly dispose of the waste materials rather than to keep them within the loop at all times.

Sustainability and circular economy are two concepts that are often used synonyms these days. However, Sustainability represents a greater holistic environmental approach to the environment. Murray et al, (2017) notes, the circular economy co-opts many of the sustainable

For general queries or to submit your research for publication, kindly email us at editorial@ijalr.in

<https://www.ijalr.in/>

development goals including- gender equality, ending poverty etc; but fails to answer how the social aspects of it would be addressed (Corvellec et al., 2022). Thus circular economy thus ignores a crucial facet of the environment the people and the methods to address these social issues. Further, a circular economy is driven by a capitalistic economy. The biggest issue in replacing a linear economy, which is based on the buy-use-dispose model, and replacing it with a circular economy is that it does not really address the issue of unsustainable consumption. By ensuring the loop is closed to disposal, corporations have extended their consumer markets while also implementing a corporate sustainability strategy (Mah, 2021).

CIRCULAR ECONOMY- A MESSIAH?

Like any environmental management system, there are numerous benefits from the implementation of a circular economy model. The circular economy model is predicted to create 6 million new employment opportunities by the year 2030 (McGinty, 2021). An important aspect of the circular economy is reuse, recycling and repair. Often the jobs involved in this are considered to be a part of the unaccounted informal sector of the global economy. The circular economy framework by legitimising these roles helps to further expand the scope of growth of economies while ensuring waste reduction.

It can also be argued that the Sustainable Development Goals are extremely open-ended in nature; having dispersed goals and no exact goals and frameworks to achieve these. The goals cover a vast scope from poverty reduction, water and sanitation access, gender equality and more. In comparison, the circular economy model is more definite. It makes use of economic means to improve the environment (Giessdoerfer et al., 2016). In contrast to the sustainable development goals framework that seeks to decouple growth from achieving its targets; the circular economy approach has an industrial framing. This certainly provides a better incentive for countries around the world to implement it. Thus making it more likely to achieve success. Future quantification studies in numerous European countries have revealed a transition to a circular economy model would lead to a reduction of 70% of greenhouse gas emissions (Stahl, 2016). This is not an insignificant number. It can be reasonably inferred such reduced emissions can proportionately be expected to have other environmental benefits including biodiversity protection, better health outcomes, reduced pollution etc.

The social sustainability benefits of the circular economy also play a pivotal role. That circular

For general queries or to submit your research for publication, kindly email us at editorial@ijalr.in

<https://www.ijalr.in/>

economy promotes economic growth has been established above. This can thus foster more social integration, social/civic/political cooperation and well-being in society (Mies&Gold 2019). Mies and Gold (2019), further mention that such improved social outcomes as a result of the implementation of circular economy strategies lead to more awareness and citizen demand for further improved environmental protections. Thus the social upliftment of society through the circular economy leads to further demand from society for an even more sustainable society as a whole.

CONCLUSION

The concept of circular economy has developed and assumed an identity of its own. Nevertheless, it is not without its pros and cons. As this article has shown, it is an environmental framework that is one among many that exist. It has been regarded as a saviour for the environment. However, this is not the whole truth as the critique above shows. At the same time, it would be wrong to discard the concept fully. It is not without its merits and has been successfully implemented (to a certain extent) in numerous cases. The concept of the circular economy is still in its nascent stages (TOURISM AND THE CIRCULAR ECONOMY IGCAT 2017). Thus it would be wrong to say it is a mirage. In conclusion, perhaps the best way forward with the circular economy framework is the middle road i.e. a one size fits all approach is not very sustainable. It would be put to best use by tweaking and moulding it in a way that is best for a particular organisation or country.

CITATIONS

- Paul Patton, FOUCAULT, CRITIQUE AND RIGHTS WWW.ACADEMIA.EDU (2005), https://d1wqtxts1xzle7.cloudfront.net/34757471/Foucault__Critique_and_Rights-with-cover-page-v2.pdf?Expires=1670253163&Signature=Mq9h5IwCttOBAX17jD4MzXp2VLLsMetTUgOLOIRhe0x361JwSO3IV72oDDRvsF4oWaA7G6z1cXZv-8Qt8p6sajGclfsGGSz--p6hnkJyy1PLv9R~0SDK33IzTM9F3H1nEDvuX4noV9nipqVDtcUavxjOuZK1ZlQ8M7TF5dF72I~QUwTYKzPPgnlsuzhGOgRrw1BwrV4Vz1gntluuGN21E4tovZ2k1S-UAZJcMuhV2G7tpkTHpwox4QCFD6mcD~apSz1YLW0L5RHW4Xq5jfImlBfSQG1gqkHXf0zLc~iiaBh3LtMovFB989BYQ-mu3gjLcFd2u5zpCLUIKAhywyalZw__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA (last visited Dec 3, 2022).

For general queries or to submit your research for publication, kindly email us at editorial@ijalr.in

<https://www.ijalr.in/>

- HARRY LEHMANN ET AL., THE IMPOSSIBILITIES OF THE CIRCULAR ECONOMY: SEPARATING ASPIRATIONS FROM REALITY (2022).
- Hervé Corvellec, Alison F Stowell & Nils Johansson, CRITIQUES OF THE CIRCULAR ECONOMY (2022).
- Alice Mah, FUTURE-PROOFING CAPITALISM: THE PARADOX OF THE CIRCULAR ECONOMY FOR PLASTICS (2021).
- 12 COUNTRIES HAVE BUILT ROADS OUT OF PLASTIC – AND THEY CAN PERFORM AS WELL OR BETTER THAN ASPHALT GOOD NEWS NETWORK, <https://www.goodnewsnetwork.org/paving-with-plastic-dent-global-waste-problem-yale/> Mar 11, 2021(last visited Dec 14, 2022)
- CIRCULAR ECONOMY FOR A SUSTAINABLE FUTURE | CLEANAWAY, <https://www.cleanaway.com.au/sustainable-future/circular-economy-strategy/> Aug 2021 (last visited Dec 14, 2022)
- CIRCULAR ECONOMY UNCTAD, <https://unctad.org/topic/trade-and-environment/circular-economy> (last visited Dec 14, 2022)
- FINDING WAYS TO BECOME AN ESG LEADER OF TOMORROW MID, <https://mid-east.info/finding-ways-to-become-an-esg-leader-of-tomorrow/> (last visited Dec 14, 2022)
- FRANCE GIVEN GO-AHEAD TO ABOLISH INTERNAL FLIGHTS EURONEWS, <https://www.euronews.com/green/2022/12/02/is-france-banning-private-jets-everything-we-know-from-a-week-of-green-transport-proposals> (last visited Dec 14, 2022)
- FRANCE'S ANTI-WASTE AND CIRCULAR ECONOMY LAW HOW TO BUILD A CIRCULAR ECONOMY, <https://ellenmacarthurfoundation.org/circular-examples/frances-anti-waste-and-circular-economy-law> (last visited Dec 14, 2022)
- Ann Parson: HOW PAVING WITH PLASTIC COULD MAKE A DENT IN THE GLOBAL WASTE PROBLEM YALE E360, FEBRUARY 11, 2021 <https://e360.yale.edu/features/how-paving-with-plastic-could-make-a-dent-in-the-global-waste-problem> (last visited Dec 14, 2022)

For general queries or to submit your research for publication, kindly email us at editorial@ijalr.in

<https://www.ijalr.in/>

- Huda Shafiq & Anzar Hamid, Plastic Roads: A Recent Advancement in Waste Management, 5 INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH & TECHNOLOGY (2016)
- IMPLEMENTATION OF BIOENERGY IN INDIA, https://www.ieabioenergy.com/wp-content/uploads/2021/11/CountryReport2021_India_final.pdf (last visited Dec 14, 2022)
- INDIA CONSTRUCTED 703 KM OF HIGHWAYS USING PLASTIC WASTE - TIMES OF INDIA THE TIMES OF INDIA, <https://timesofindia.indiatimes.com/auto/news/india-constructed-703-km-of-highways-using-plastic-waste/articleshow/84883086.cms> (last visited Dec 14, 2022)
- Joseph Fiksel et al., Steps toward a resilient circular economy in India, 23 CLEAN TECHNOLOGIES AND ENVIRONMENTAL POLICY , 203-218 (2020)
- Katie Conlon, Plastic roads: Not all they're paved up to be, 29 INTERNATIONAL JOURNAL OF SUSTAINABLE DEVELOPMENT & WORLD ECOLOGY , 80-83 (2021)
- POWER MINISTRY ASKS STATES TO FORMULATE PLANS FOR BIOMASS CO-FIRING IN POWER PLANTS THE ECONOMIC TIMES, <https://economictimes.indiatimes.com/industry/energy/power/power-ministry-asks-states-to-formulate-plans-for-biomass-co-firing-in-power-plants/articleshow/93085802.cms> (last visited Dec 14, 2022)
- TOURISM AND THE CIRCULAR ECONOMY IGCAT - INTERNATIONAL INSTITUTE OF GASTRONOMY, CULTURE, ARTS AND TOURISM, chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/<https://www.igcat.org/wp-content/uploads/2017/05/TOURISM-AND-THE-CIRCULAR-ECONOMY-.pdf>
- Xavier Vence & Sugey de López Pérez, Taxation for a circular economy: New Instruments, reforms, and architectural changes in the fiscal system, 13 SUSTAINABILITY , 4581 (2021)

For general queries or to submit your research for publication, kindly email us at editorial@ijalr.in

<https://www.ijalr.in/>