

**Circular Economy And Global Governance:  
Promoting Sustainable Development Through International  
Cooperation**

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## **ABSTRACT:**

Our current economic structure is perforated. The COVID-19 pandemic has made our healthcare, social, economic, financial, and political systems vulnerable. Working together to create a more resilient economy that is centered on increased sustainability, welfare, and regeneration is crucial right now if we want to achieve a better balance between people, the earth, and wealth. The solution to this is offered by means of a sustainable circular economy (CE) model working on the principle of sustainable production, reasoned consumption, and efficient waste management. Certainly, the application and feasibility of this model should be seen in the broader objective of sustainable development, particularly in essence of the Sustainable Development Goals. Therefore, what is needed to achieve this overarching goal of sustainability is international cooperation and innovative solutions to the problem of overgrowing consumerism and depleting resources. However, gathering end-of-life products and materials and returning them to a useful form calls for the use of additional resources and energy inputs. With this context in mind, the aim of this paper is to first give the case for a CE and establish its relation with sustainable development. This paper will also talk about various initiatives and policies adopted by intergovernmental organisations like European Union's Green Deal and the World Economic Forum, and also take heed of best practices being carried out by individual countries to actualise the goal of a sustainable CE. This paper will also make an attempt to understand sustainable CE better through a case study. The paper then goes on to analyse the obstacles to change and how to get beyond them via a variety of governance activities that seek to offer practical solutions. This is done in order to give practical solutions and gain insights to make better policy decisions on a global as well as national level.

## **INTRODUCTION:**

A World Bank report published in 2018, titled, “*What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050*” highlighted that without urgent efforts, global waste will increase by 70 per cent over on current levels by 2050<sup>1</sup>. If this waste is not collected and managed properly, it can contaminate and affect ecosystems and waterways for hundreds, or possibly thousands, of years. Approximately 90 percent of marine debris is plastic.<sup>2</sup> The report emphasises the harm that waste management does to our water supply and oceans as well as its effects on the most vulnerable populations. Additionally, it raises awareness of the ways in which organisations and sectors can set an example for waste reduction globally while also managing economic development and innovation.<sup>3</sup>

The root cause of this incessant waste generation lies in the linear model of consumption that had been followed vigorously, especially in the 19th and 20th centuries. This model underlines a take-make-dispose pattern that has plummeted the world into severe environmental disasters, adverse impacts on human health, and rapid depletion of natural and non-renewable resources. As a result of concerns about the inherent limitations of the linear mode of production, what emerged was an alternate mode of economical advancement founded on the bedrock of 3 R’s- reduce, reuse and recycle, in other words, **circular economy (CE)** coupled with sustainable development.

CE and sustainable development are two concepts that have been intertwined since the early discourse on environmental economics dating back to the 1960s and 1970s. Circularity began to be promoted in the 1970s by a man by the name of Dr. Walter Stahel, known as the “father of the circular economy”. In a 1982 study titled “The Product-Life Factor,” he introduced the phrase “closed loop economy,” which is now used to characterise circularity. A closed-loop economy is “an economic model in which no waste is generated; everything is shared, repaired, reused, or recycled. What would traditionally be considered “waste” is instead turned into a valuable resource for the creation of something new.”<sup>4</sup>

Governments began passing laws relating to circularity and sustainability as a result of rising public awareness of these issues. As the CE began to be debated in environmental circles as a means of reducing waste, the European Union created its first Waste Framework Directive in 1975 with the goal of establishing a CE for Europe by 2020.<sup>5</sup>

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<https://www.worldbank.org/en/news/press-release/2018/09/20/global-waste-to-grow-by-70-percent-by-2050-unless-urgent-action-is-taken-world-bank-report>

<sup>2</sup> <https://sdg.iisd.org/news/world-bank-report-warns-global-solid-waste-could-increase-70-percent-by-2050/>

<sup>3</sup> <https://www.sabes.org/content/what-waste-20-world-bank>

<sup>4</sup> <https://www.quincyrecycle.com/closed-loop-economy-what-does-it-mean-and-how-does-it-work/>

<sup>5</sup> <https://thearriveplatform.com/updates/the-history-of-the-circular-economy>

While a challenge of a generally agreed upon definition of CE still persists, the commonly used definition proposed by the Ellen McArthur Foundation in 2015, in the backdrop of UN SDGs, holds relevance. The EMA report defines CE as:

*“Looking beyond the current take-make-waste extractive industrial model, a circular economy aims to redefine growth, focusing on positive society-wide benefits. It entails gradually decoupling economic activity from the consumption of finite resources, and designing waste out of the system. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural, and social capital. It is based on three main principles: i) Design out waste and pollution, ii) Keep products and materials in use, and iii) Regenerate natural systems.”<sup>6</sup>*

Meanwhile, the UN's sustainable development objectives call for raising human well-being, refocusing economic prosperity, and safeguarding a healthy environment. CE initiatives should be incorporated into global agendas on sustainable development and climate change because neither can succeed without a sustainable CE. This will give national governments and businesses more motivation to accept responsibility.

## **CIRCULAR ECONOMY IN A GLOBALIZED WORLD:**

The values and guiding concepts that continue to guide the conversation about sustainable development were outlined in the **WCED (1987) study, Our Common Future, also known as "the Brundtland report."** The statement that *"Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs"* was a response to the serious concerns expressed in the 1960s and 1970s by authors for the *Club of Rome*. Post that various organisations emerged that sought to draw attention of global leaders and citizens to the ongoing crisis of integrating economic development with sustainability.

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<sup>6</sup> <https://ellenmacarthurfoundation.org/media-centre/overview>



Fig 1. Source: UNCTAD

Resource efficiency and sustainable consumption & production, which are key ideas for achieving sustainable development, are foundational components of the CE. A CE is especially relevant to key goals like **SDG 12 on "Ensuring Sustainable Consumption and Production Patterns,"** as the targets depend on recirculating what was formerly thought of as waste back into the economic space through closed loop processes that reduce negative externalities.

Without a question, the CE has great sustainability potential. However, because of a weak conceptual foundation and connection to sustainable development, "CE solutions" have been proposed that have a negative impact on sustainability. In these situations, it is debatable whether the wider trade-offs of CE practices exceed the advantages for sustainability. Because of their inherent limits, the evolving ideas of CE and sustainable development must also continue to change in order to address the expanding complexity of the sustainability issues.

While the environment is the primary driver of the transition to a CE—cutting the danger of resource depletion, decreasing pollution, and reducing GHG emissions—there are several significant co-benefits. The values to be captured and money saved are the most obvious, in addition to other societal goals that can be achieved. Entrepreneurial activity is projected to develop in fields like product customization, sharing economies, refurbishing, remanufacturing, and repair, in turn increasing net employment. There will be a lot more contact between citizens in a society where the economy is increasingly based on the provision of services rather than products and on the idea of a sharing economy, which is expected to improve quality of life and, more specifically, the degree of trust.

## **INTERNATIONAL EFFORTS AND BEST PRACTICES:**

### **EUROPEAN UNION'S GREEN DEAL AND SUSTAINABLE FINANCING:**

Since 1997, the EU has been striving to create a variety of texts that address aspects of CE, sustainable development, and now the green deal.<sup>7</sup> The Green Deal was developed by the European Union as a green growth initiative, and as such, it calls for behavioural changes among consumers, businesses, and decision-makers within the EU as well as outside its boundaries to deal with the menace of unsustainable development.<sup>8</sup> It will be crucial for the EU and its member states to get ready for follow-up measures at the UN, WTO, OECD, G7, and G20 levels in order to guarantee that the transition to a CE would be compatible with international rule-making. In its **Action Plan for the CE**, the European Union makes it very clear that it cannot fulfill the objectives of the Green Deal on its own.

Another step taken by the EU in this direction is the Carbon Border Adjustment Mechanism (**CBAM**), set to start being implemented from October 2023. CBAM aids in addressing the problem of carbon leakage, which happens when domestic companies move to nations with laxer climate regulations, increasing worldwide emissions. CBAM intends to prevent carbon-intensive sectors from moving production to nations with weaker environmental standards by imposing carbon-related charges on imported goods, hence minimising carbon leakage.<sup>9</sup>

**Sustainable finance** entails investing and making financial decisions that take the environment's effects and repercussions into consideration. Investments made with a social conscience allow organisations that adhere to the principles of sustainable development to lessen their negative effects. As a result, the development of a CE is made possible by the financing and insurance of businesses operating in this field, as well as by a strategy for sustainable financing that is based on the incorporation of **environmental, social, and governance performance (ESG)** in decision-making to make sustainable development a reality.

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<sup>7</sup> European Commission. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions. Sustainable Europe Investment Plan. European Green Deal Investment Plan, 2020; European Commission: Brussels, Belgium, 2020

<sup>8</sup> Geissdoerfer, M.; Savaget, P.; Bocken, N.M.P.; Hultink, E.J. The CE—A new sustainability paradigm? *J. Clean. Prod.* 2017, 143, 757–768.

<sup>9</sup> <https://www.civildaily.com/news/carbon-border-adjustment-mechanism-cbam/>

## **WORLD ECONOMIC FORUM:**

Circularity is now actively being promoted by the World Economic Forum (WEF). The WEF's CE Initiative unites business, public, civil society, and expert players to advance four important pillars of work that will hasten the transition to a CE. The four key pillars are:

1. The **Platform for Accelerating the CE (PACE)** enables public and commercial sector leaders to quicken group action towards CE.
2. **Value Chains for Materials Transformation** includes action partnerships that collaborate with partners in global material value chains to develop circular models in a variety of industries, including plastics, electronics, batteries, transportation, and apparel/textiles.
3. **Scale360°** is a new initiative that aims to mobilise action among innovators, governments, civil society, and private sector stakeholders to grow the ecosystem for circular 4IR technology innovation (Fourth Industrial Revolution) and focuses on scaling innovation while exploring the potential of the 4IR to advance the CE.<sup>10</sup>
4. **The CE for the Transition to Net-Zero Industries.** By accelerating scalable CE solutions, this effort aims to increase the decarbonization ambition for harder-to-abate materials (steel, cement, chemicals, and aluminium) and assist those industries in realising a 1.5° roadmap.<sup>11</sup>

The WEF's initiatives will be crucial in assisting businesses in getting ready for the shift to a CE. How to include small- and medium-sized businesses (SMEs) in the process, however, would be a challenge. Engaging in sustainability-related activities is one thing for giant corporations, but it is quite another for small and medium-sized businesses. Governments must thus assist in putting assistance programmes in place, preferably working together with corporate organisations.

## **OTHER INITIATIVES:**

**1) Sustainable consumption and production (SCP)** At the moment, natural resource extraction and processing are responsible for around 50% of the world's greenhouse gas (GHG) emissions.<sup>12</sup> To meet the 1.5°C goal of the Paris Agreement, a comprehensive integration of material and resource efficiency across economic sectors is essential. A significant opportunity to raise climate ambition in

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<sup>10</sup> World Economic Forum. 2019. Harnessing the Fourth Industrial Revolution for the CE. Consumer Electronics and Plastics Packaging. World Economic Forum; The Platform for Accelerating the CE (PACE).

<sup>11</sup><https://ce-hub.org/knowledge-hub/circular-economy-for-net-zero-industry-transition/#::~:~:text=Four%20distinct%20circular%20strategies%20can,the%20need%20for%20new%20products>

<sup>12</sup> International Resource Panel, Global Resource Outlook (2020)



line with pathways towards the 1.5°C goal is provided by updating **Nationally Determined Contributions (NDCs) and Long-Term Low Emissions Development Strategies (LT-LEDS)**. In order to help policymakers and stakeholders include the CE, resource efficiency, and SCP policies and measures into their NDCs and LT-LEDS, UNDP, UNEP, and UNFCCC are jointly developing a guide toolkit<sup>13</sup>, accomplished through the Netherlands and Finland's Sitra Innovation Fund funded research.<sup>14</sup>

**2) The Republic of Korea** declared its **New Deal** in 2020 in order to facilitate a long-term, inclusive recovery from the COVID-19 pandemic. The "**Green New Deal**" is a component of the New Deal that incorporates circularity principles into projects for the industrial sector, green infrastructure, and renewable energy. In June 2020, the Republic of Korea's Ministry of Environment unveiled a strategy to promote hydrothermal energy in line with a more circular approach to resource efficiency, the plan proposes a pilot project to construct the Gangwon Hydrothermal Energy Convergence Cluster in Chungcheong, Gangwon Province, by 2027. This project seeks to improve energy efficiency by grouping energy-intensive buildings and utilizing hydrothermal energy from the dam water for cooling and heating,<sup>15</sup> However, Korea's commitments under its Green New Deal fall short to that of US and EU plans in terms of climate targets (especially 2030 targets) and projected amounts of investment in proportion to GDP. For instance, its hydrogen fuel cell electric vehicles (FCEV) which highly subsidizes FCEVs is not an entirely conducive policy since it will be made from fossil fuels as South Korean hydrogen will remain grey rather than green for the foreseeable future.<sup>16</sup>

## **CIRCULAR ECONOMY AND INDIA:**

The Indian ecosystem is not a new-age concept to circularity. The nation has a reputation for ingenuity when it comes to 'doing more with less'. According to projections made by the Ellen MacArthur Foundation, India's adoption of the circular economy will result in yearly benefits worth Rs 40 lakh crore (\$624 billion) and a 44% reduction in greenhouse gas emissions by 2050.<sup>17</sup> India's policy

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<sup>13</sup><https://www.unep.org/events/unep-event/strengthening-ndc-ambition-through-circular-economy-path-15-degrees-unep-undp>

<sup>14</sup> A 1.5°C World Requires a Circular and Low Carbon Economy (2020)

<sup>15</sup> Vence, X.; López Pérez, S.d.J. Taxation for a CE: New Instruments, Reforms, and Architectural Changes in the Fiscal System. Sustainability 2021, 13, 4581

<sup>16</sup> <https://thediplomat.com/2020/08/how-green-is-south-koreas-green-new-deal/>

<sup>17</sup><https://www.businesstoday.in/opinion/columns/story/putting-india-on-an-accelerated-path-to-build-a-circular-economy-325489-2022-03-10>

measures have placed a strong emphasis on the concept of green growth, which is reflected in the budget proposal for 2023–2024. For energy transition, the budget allots Rs 35000 crores, which is a significant step towards realizing the objective of green growth.

Efforts made in this direction include:

### **National Resource Efficiency Policy (NREP):**

The 2019 launch of the initiative aims to advance resource efficiency, encourage sustainable production and consumption practices, and lessen the environmental impact of economic activity. NREP involves actions to promote the use of circular business methods like renting, sharing, and product as a service, encouraging using recycled materials.

### **Extended Producer Responsibility (EPR)<sup>18</sup>:**

Extended Producer Responsibility (EPR) is a concept where producers are held accountable for the entire lifecycle of their products, including disposal and recycling. It is an important step towards sustainable waste management and environmental protection. EPR has gained traction in India in recent years, and the government has put in place several policies and regulations to support it. EPR was first introduced under National Environmental Policy, 2006. After that it got incorporated into the E- Waste (Management & Handling Rules) 2011 and the Plastic Waste Management Rules 2016, both of which made it mandatory for producers to manage their waste.

### **G-20- New Delhi Declaration:**

In the **2023 G20 Leaders Summit** under India's leadership, the **New Delhi Declaration** was adopted. It emphasized the need to concentrate on creating inclusive, resilient, and sustainable cities of the future through better financial resource mobilization and effective use of current resources. The declaration asks for strong, sustainable, balanced, and inclusive growth as well as the pursuit of development models that "leave no one behind" while affirming the objectives set forth in the Paris Agreement.<sup>19</sup>

Special attention is to be drawn on **point 37 of its Preamble**, which acknowledges the critical role played by CE, extended producer responsibility and resource efficiency in achieving sustainable development. In effect, **the Resource Efficiency and Circular Economy Industry Coalition (RECEIC)** was also launched. It also promises to make it easier for low-income nations to get the financing they need for their energy transitions. This is a significant victory for developing nations like India, which has been pressing wealthy nations to accept more accountability for their part in the global climate disaster.

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<sup>18</sup> <https://www.shaktiplasticinds.com/extended-producer-responsibility-in-india-epr/>

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<https://theprint.in/environment/historic-moment-heres-what-g20-delhi-declaration-means-for-fight-against-climate-change/1754677/>

## **CASE STUDY: H&M GROUP**

The second largest fashion firm in the world today is H&M Group, which was established in Sweden in 1947. H&M Group made public its intention to become a circular corporation and climate positive by 2040 in 2016 as it recognised that the traditional fashion model, based on linearity, is wasteful and polluting. The group has shifted its focus on developing a “circular ecosystem” via the practice of using sustainability sources materials and building circular supply chains. Additionally, the stores of the H&M Group have a circular built environment strategy with an incorporated goal to source better materials, cut CO2 emissions by 56% by 2030, and design shop furnishings to be recyclable, reusable, or repairable.

The Group has also launched a B2B supply chain initiative called Treadler that allows others to access parts of H&M Group’s circular supply-chain, enabling other non-H&M Group brands to overcome initial barriers and accelerate their own circular transformation. Such an initiative points to the potential enabling role of large linear incumbents in a future circular fashion industry. The financing from these initiatives comes from H&M Group’s own sustainable-linked bonds, linked to achieving emissions and material use targets rather than specific use of proceeds.<sup>20</sup>

The goal of using only recycled or more sustainably sourced materials by 2030 is a crucial step in realizing H&M Group’s circular vision. Under the more general category of “green clothing,” there are numerous examples of projects that have been carried out in collaboration with H&M Group’s Circular Innovation Lab. For instance, the cellulosic fiber called Infinna™, developed by Finnish start-up Infinited Fibre, is made by transforming used textiles, biomass waste, and cardboard. It gives a natural feel and offers a lower impact option to cotton and viscose. A method created by the French business Fairbrics not only reduces emissions, but also has the potential to reduce greenhouse gas emissions overall. The substance is created by reacting CO2 from industrial sources in a chemical process to create polyester, which has the same functionality and recyclability as regular polyester.

However, any such attempt is susceptible to the concern of “greenwashing” which entails false claims by companies to be doing more for the environment than they actually are through deceptive advertising or false claims. In order to increase their competitive edge and draw in more customers interested in conscious purchasing, the fast fashion industry has been a big villain of this practice. Fast fashion has embraced greenwashing since customers frequently choose businesses with sustainable

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<sup>20</sup> <https://ellenmacarthurfoundation.org/circular-examples/hm-group>

practices over those without. Therefore, what is needed is more transparency on the part of companies, regarding the sustainability of their products, and more conscious choices on part of the consumers.

## **CHALLENGES:**

Natural systems are under increasing pressure due to the overuse of natural resources, including energy and materials. According to the International Resource Panel (IRP), more than half of the world's carbon emissions and 90% of biodiversity loss are attributed to the extraction, processing, and preparation of minerals, fuels, and food from farm to fork ("cradle to gate")<sup>21</sup>. The transition to a CE presents numerous challenges, as it requires a fundamental shift in the way we produce, consume, and manage resources. Some of these pertinent challenges are discussed below:

### **1. Definitions and Indicators:**

Sustainability expert Dennis Pamlin draws attention to the dangers posed by the lack of a precise definition of the CE in a recent report to the Swedish Environment Protection Agency<sup>22</sup>. According to Pamlin, the absence of a precise definition allows various actors to continue their unsustainable practices under the pretense of circularity. Examples of companies that are using initiatives in the CE space to deflect attention from their wasteful business models include those based on fast fashion, fast food, unsustainable tourism, or consumer electronics and planned obsolescence. The biggest problem is that we use the wrong metrics. At the level of society, where GDP growth—which tells nothing about quality—is measured, and at the level of materials, where flows but not inventories are taken into account.

### **2. Governance and Policy Challenges:**

A shift from a linear to a circular manufacturing model entails an adjustment to the entire economy. There is a critical need for international and global governance that supports the shift to a CE. What we have so far are policies and projects mostly aimed at improved waste management and recycling after decades of increasingly intensive discussion, not least in

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<sup>21</sup> International Resources Panel.2019. Global Resources Outlook 2019: Natural Resources for the Future We Want. Oberle, B.; Bringezu, S.; Hatfeld-Dodds, S.; Hellweg, S.; Schandl, H.; Clement, J. and Cabernard, L. Nairobi, Kenya : A Report of the International Resource Panel. United Nations Environment Programme.

<https://www.resourcepanel.org/reports/global-resources-outlook>

<sup>22</sup> Pamlin, D. and Enarsson, M. 2019. Incremental CE as a Serious Sustainability Problem. Swedish Environmental Protection Agency. Report 6906.

<https://www.naturvardsverket.se/Documents/publikationer6400/978-91-620-6906-3.pdf?pid=25870>

Europe. These are positive moves, but they need to be complemented—or rather, replaced—by an emphasis on challenges that are occurring upstream. Developing and enforcing regulations that promote circular practices can be challenging.

### **3. Trade Challenges:**

The World Trade Organisation is now addressing a barrier that prohibits the import of circular items for protectionist grounds. Additionally, there are currently few financial incentives for the promotion of circularity while international regulatory barriers continue, such as the fact that labour costs are higher than those for virgin resources and that non-renewable resources like oil may be taxed at levels that are either comparable to or lower than those for renewable ones. Another barrier is the cost of goods and services, the costs of which still do not adequately reflect the costs of ecological harm. Political sensitivity makes it challenging to pass new taxes that include such environmental harms. A move to a CE will involve a lot of trade in used raw materials. The geographical distribution of secondary raw materials is similarly uneven to that of natural resources. Internationally recognised quality standards for such materials are, however, mostly absent.

### **4. Technology and Industry:**

When transitioning from a linear economy to a circular one, the costs of the transformation (such as R&D, asset investments, and digital infrastructure) are the first obstacle. Second, the business case for recovery managers is comparatively uneconomic and, hence, less appealing due to competition from (often cheaper) virgin materials. The supply and demand of non-virgin (secondary) raw materials are currently out of balance.<sup>23</sup> Additionally, spatial and temporal disparities prevail. The "delaying effect of stocks" is a key factor in the slow growth of reuse and recycling which has the effect of preventing supply from keeping up with demand in a market where demand is rising. This is especially true when speaking of low-income nations where the majority of the urban infrastructure required in the upcoming years has not yet been constructed.<sup>24</sup>

### **5. Financing:**

It is no surprise that a transition to CE from a linear one will require huge investments and even then a complete transition is neither feasible nor advisable. Many developing countries find it difficult to finance their sustainable development projects or transition smoothly into a

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<sup>23</sup> <https://www.ippi.org.il/transitioning-to-a-circular-economy-what-are-the-challenges/>

<sup>24</sup> The One Planet network. 2018. One Plan for One Planet. 5 Year Strategy 2018-2022. [https://spaces.oneplanetnetwork.org/system/files/strategy\\_one\\_planet.pdf](https://spaces.oneplanetnetwork.org/system/files/strategy_one_planet.pdf)

CE. Attempts have been made by means of Green Financing, however the corpus is quite small to meet the investment requirements of sustainable development projects. Even waste-to-energy plants require ample resources and investments to effectively turn waste into energy. The proportion of 46 Least Developed nations (LDCs) in these investments fell from the already low 19% in 2020 to 15% in 2021, despite a 70% rise in foreign investments in SDG-related sectors in developing nations.<sup>25</sup> While reflecting internal business conditions in manufacturing, financial barriers like "high upfront costs," "low returns on investment," and "limited access to capital" are also closely related to external circumstances.

## 6. Behavioral Gaps:

The "business and commercial model" decision, "knowledge and expertise," "competing priorities," "internal capacity and resources," "habitual behaviour," "negative attitudes and cultures," and other internal barriers are all things that organisations and states would be able to improve or resolve. However, manufacturers would obviously have little incentive to act to remove its internal circularity barriers unless those barriers also happened to be barriers to profit. For example, if there is a "lack of consumer demand" for the kinds of products that would be consistent with the sustainable CE, such as products designed with recycling or remanufacturing in mind, or if "policies" or "pricing signals" are absent. Many of these external and internal impediments could be also easily understood from the perspective of the individual. Habits themselves can be a significant restricting factor limiting CE practices.

## **RECOMMENDATIONS:**

A fully holistic approach is required to debate and frame the CE within the perspective of the SDGs. The seventeen objectives are intertwined, and accomplishment of one will have an impact on the others. For example, if objective 8 (decent employment and economic growth) were given top priority, goals 13 (climate action), 14 (life below the sea), and 15 (life on land) would suffer greatly. For this reason, according to the **Stockholm Environment Institute (SEI)**, "governments, international organisations, businesses, and other actors must plan efficiently, utilizing synergies, mitigating trade-offs, and treating the Agenda as an invisible whole."<sup>26</sup> The issue of how to remove obstacles from

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<https://sdg.iisd.org/commentary/guest-articles/bridging-the-sdg-financing-gap-through-first-time-fund-managers/#:~:text=The%20annual%20funding%20required%20to%20estimated%20USD%204.2%20trillion%20gap.>

<sup>26</sup> <https://www.sei.org/>

a CE has many facets. On many levels, including the global, regional, national, and local, politics play a vital role. However, other stakeholders also have a significant impact; the most significant of these are business organisations, science and technology, and civil society. Companies can lead by example and pave the way for other businesses.

1. By **developing online marketplaces or take-back programmes** that make the selling of used goods as simple as possible, businesses may encourage action and commitment. Through instruction and campaigns, like the one just started by the municipality of Panaji, the capital of Goa, they can further spread awareness of proper disposal techniques.<sup>27</sup> The programme offers tourists and locals the chance to barter for necessities like groceries in exchange for dry waste like PET bottles or cardboard. **Public-private partnerships (PPPs)** can boost participation to kickstart a CE and encourage coordinated investments.
2. Investments are a key factor when it comes to building sustainable-economy models. Public investments in the transition to a CE should be reinforced by **market-based tools like taxes or subsidies** to help shape the behaviour of businesses, consumers, and the public sector while producing money for direct government action<sup>28</sup>. **Tax deferrals**, rules governing accelerated depreciation for new investments, temporary reductions in the corporate income tax for those who make these investments, and increased temporary import tariffs on inputs that can be effectively recycled and replaced by circular inputs are a few examples of these policies. Government rules in Thailand offer a favourable business environment for entrepreneurs seeking to add value to raw materials or develop green enterprises using trash and plastic<sup>29</sup>.
3. A regional and international transition to a CE can be ensured via **global trade agreements**. The development of the CE can open up new markets for trade, including those in the traditional waste management and recycling sectors as well as in cutting-edge strategies that have high resource efficiency.<sup>30</sup> Circular offerings can become competitive by utilising the comparative advantages and market scales through international commerce, enabling the formation of new business models that fully utilise the potential of circularity globally. In general, cooperation is required to establish common guidelines and standards for global

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<sup>27</sup> Manuja, S. and Rathi. V. 2020. This Gandhi Jayanti, shop your waste in Panaji. Sunday. 27 September. <http://epaper.theagoan.net/c/55252717> (Accessed 20 August 2021).

<sup>28</sup> Sitra 2018. ALIGNING FISCAL POLICY WITH THE CIRCULAR ECONOMY ROADMAP IN FINLAND. [https://green-budget.eu/wp-content/uploads/Final\\_report\\_finalversion-with-revised-charts\\_08-01-19.pdf](https://green-budget.eu/wp-content/uploads/Final_report_finalversion-with-revised-charts_08-01-19.pdf)

<sup>29</sup> <https://www.paiscircular.cl/consumo-y-produccion/>

<sup>30</sup> Kettunen, M., Gionfra S. and Monteville, M. (2019), EU CE and trade: Improving policy coherence for sustainable development, IEEP Brussels / London.

circular value chains. This is crucial since there are potential social problems that need to be watched out for, such environmental or health risks<sup>31</sup>.

4. **Blockchain, the Internet of Things, and other digital technologies** can help open up new possibilities for circular business models like **product-as-a-service** and sharing platforms. Investing in research on the CE can contribute to the creation of new knowledge and insights that can guide policy, company plans, and innovation. This might hasten the shift to a CE that is more sustainable.<sup>32</sup>
5. **Right to Repair** enables consumers to get **original equipment manufacturers' (OEMs)** or independent repairers to fix their phones, appliances, and other electronic equipment at a reasonable price. The goal is to provide clients with a less priced replacement for expensive products rather than forcing them to buy entirely new ones.<sup>33</sup> The Indian government's Ministry of Consumer Affairs (MCA) has established a **Right to Repair portal** that enables consumers to get their devices and cars fixed without voiding their warranties. The government created the Right to Repair portal to shield consumers from planned obsolescence, or designing a product with a short lifespan that generates more e-waste.<sup>34</sup>

## **CONCLUSION:**

The transition to a CE appears to be inevitable. Even though nothing is really circular, there are clear advantages to switching from a linear to a circular production model from an economic, social, and environmental standpoint. The decreases in pollutants, including emissions of carbon dioxide, are remarkable. Numerous exponential technologies should be able to dramatically reduce the human footprint. But in order for it to happen, legislative frameworks that offer the appropriate incentives for a different form of economy are required. We will also require a change in our attitudes, prioritizing spending time and money on activities that have a much lower reliance on material consumption rather than consuming items that are resource- and carbon-intensive.

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<sup>31</sup> [ISO - Connecting the dots in a CE: a new ISO technical committee just formed](#)

<sup>32</sup> <https://www.sciencedirect.com/science/article/pii/S0040162522000403>

<sup>33</sup>

<https://www.livemint.com/technology/tech-news/explained-what-it-right-to-repair-how-it-help-consumers-brands-registered-on-the-portal-and-more-11684660960389.html>

<sup>34</sup><https://www.livemint.com/technology/tech-news/explained-what-it-right-to-repair-how-it-help-consumers-brands-registered-on-the-portal-and-more-11684660960389.html>



Hopefully, the quick advancement of information technology will lead to the much-needed shift in consumer habits. These technologies offer prospects for dematerialization, virtual reality, AI, and machine learning.

The policies implemented at the global, national, and local levels will be of utmost significance in the years to come. Due to widespread market failures, where prices are not reflecting the negative externalities associated with the extraction, production, and use of all types of natural resources, the linear production model is currently dominant. How to match global supply chains with a CE's goals will be a major concern. In this backdrop, more direct and targeted international conversations concerning governance are required. Therefore, it is pertinent that intergovernmental organisations, NGOs, nation states, private individuals and all other stakeholders work in concert to bring about a transformative and sustainable model of CE.

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