INTRODUCTION

In his report to the 59th Commission for Social Development on the priority theme of socially just transition towards sustainable development (E/CN.5/2021/3), the Secretary-General pointed out that “By adopting the 2030 Agenda, world leaders recognized that the current trajectory of economic development has not led to shared prosperity for all, but to high and rising inequalities in many countries, the climate crisis, and unsustainable consumption and production patterns. These consequences have taken a toll on social development and people’s well-being, especially among the most vulnerable.” The Report further analyzed the link between high inequality, consumerism and environmental degradation and climate change. It makes the argument that a re-vamping of the patterns of production and consumption, namely achieving Sustainable Development Goal 12, is an imperative for the realization of the 2030 Agenda for sustainable development for people and the planet.

The COVID-19 pandemic has exposed extreme vulnerability of people and the current economic system and has undermined progress towards achieving the Sustainable Development Goals (SDGs). The pandemic has pushed an estimated 114.4 million people into extreme poverty, of which 57.8 million are women and girls. Even though the global economy is projected to expand by 5.4% in 2021, for many countries, economic output is projected to return to pre-pandemic levels in 2022 or 2023. Such a growth prospect, combined with the reality that the world was not on track to achieve the key goal and targets under SDG1 to eradicate poverty, means that a recovery bringing us back to the pre-pandemic trajectory is not an option. Our recovery strategy must aim for a better, more inclusive, more resilient and greener development path that will accelerate progress in the SDGs.

COVID-19 and measures to curtail the spread of the virus, including mobility restrictions, requirements for physical distance in public space, and greater utilization of remote work, on-line education, e-commerce and e-health services, have reduced demand for many goods and services, such as clothing and travel, while changing some aspects of production patterns and consumer behavior. This largely forced change in consumption and production reduced environmental pollution and degradation with visible results in many places around the world, albeit most likely a temporary pause. In this pause, the connection between human activity underpinned by our current production and consumption patterns and climate change as well as other environmental challenges we face collectively is laid clear. A better recovery from the COVID-19 pandemic and its multifaceted impacts

Key messages

- Achieving sustainable development requires determined actions to revamp production and consumption patterns, creating a resource-efficient and resilient post-pandemic recovery.
- The notion of the circular economy facilitates greater level of social and environmental sustainability, by emphasizing the vision of an economic system that designs out waste and pollution, keeps products and martials in use and recognizes the residual value in natural resources and post-consumption waste, to regenerate the natural system.
- Cooperatives and other enterprises of the Social and Solidarity Economy (SSE) are recognized as taking a leading role in incorporating the circular economic model into their businesses and communities. More supportive measures from governments are needed to strength their contribution to accelerated progress towards the goals of the 2030 Agenda.
- Continued efforts to improve statistical information on the circular economy, cooperatives and the wider SSE will help inform policy-making and facilitate transition to sustainable production and consumption.

1 World Economic Situation and Prospects 2021

Authors: Andrew Allimadi, Hanyang Ge and Wenyan Yang, Division for Inclusive Social Development, UN DESA.
must promote changes in these patterns, if we are serious about achieving the Sustainable Development Goals of the 2030 Agenda. Such changes at an accelerated pace must be embedded in a strategy for a better recovery. In fact, recovering from the COVID-19 pandemic with inclusion and resilience offers an opportunity to implement such changes by building on positive developments thus far.

To effect lasting changes in patterns of production and consumption requires changes in the minds and hearts of people, and in behaviors that entail actions on the parts of corporations and individuals. As the world’s attention shifts from crisis response to recovery, this Brief proposes ways to accelerate action to re-vamp production and consumption patterns for realizing a future we want, with shared prosperity for people and sustainability for the planet. It gives highlight to the concept of circular economy as a paradigm shift in our approach to production and consumption in the economic system that embeds environmental sustainability. It advocates for building on and supporting the enterprise model of cooperatives and the wider Social and Solidarity Economy (SSE) as suitable vehicles for a just transition to growth and prosperity for all in the post-pandemic world.

THE CIRCULAR ECONOMY – INTEGRATING PRODUCTION AND CONSUMPTION WITH THE NATURAL ENVIRONMENT FOR SUSTAINABILITY

The current system of manufacturing in the world takes raw materials from the environment and turns them into new products, which are consumed and then disposed of as waste back into the environment. Modern agricultural production extracts water and uses chemical fertilizers and pesticides that leave pollutants in the soil, run off with irrigation into water sources and stay in the products in trace amounts ingested by people. In this linear economic process, limited raw materials eventually run out. Waste accumulates, incurring expenses related to disposal or producing pollution. Since such production patterns in the current economic system grossly undervalue natural resources and the negative environmental impacts, if these are taken into account at all, they are inefficient in resource utilization and lead to waste of natural resources, loss of biodiversity and excessive pollution. In tandem with this linear production pattern, consumerism promoted by profit-driven corporations and popular culture encourages wasteful consumption patterns.

A new statistical standard, the System of Environmental Economic Accounts (SEEA) Ecosystem Accounting was adopted by the Statistical Commission at its 52nd session, allowing measurement of resource efficiency, waste and pollution as well as environmental degradation. It is imperative for countries to implement this new system to provide comprehensive information of the contribution of nature to wellbeing and monitor the negative impact of production and consumption on nature.

The vision of the paradigm of a circular economy is underpinned by the principle of minimizing resource use and environmental impact. With this approach, products are designed for durability, reuse and recyclability. As much as possible, everything is reused, remanufactured, recycled back into a raw material, used as a source of energy and only disposed of as a last resort. The diagram below illustrates the economy as a circular system that integrates production, consumption with the natural environment.

Although the concept of the circular economy is not new, its relevance has been gaining greater recognition. For example, in the U.S.-EU Summit Statement of June 15, 2021, the parties emphasized their resolve to increase cooperation on transition towards a climate-neutral, resource-efficient and circular economy. The circular economy is an alternative approach with the promise to effectively promote more sustainable production and consumption patterns to leverage the opportunity for change afforded by the COVID-19 pandemic to reshape the future of our world.

There are efficiency gains that can come with the transition to a circular economy. United Nations Industrial Development Organization (UNIDO) estimates that by 2025, around $1 trillion could be saved in materials under circular business models. New businesses and jobs will be created in resource recovery, repair and remanufacturing to the benefits of national economies, entrepreneurs and workers. Economic growth and employment creation from this transition will support directly and indirectly the implementation of many goals of the 2030 Agenda, including the paramount goal of poverty eradication. Transitioning to a circular economy is crucial for

---

3 United Nations Industrial Development Organization, 2017-7, Circular Economy. Available at: https://www.unido.org/sites/default/files/2017-07/Circular_Economy_UNIDO_0.pdf
stemming waste flows such as plastic pollution and e-waste. It also helps to reduce pressure on scarce natural resources such as water, non-renewable energy and raw materials, and increase the efficiency of production. Overall, it will facilitate the structural transformation that delivers shared prosperity for all people within the planetary boundaries.

However, it should be noted that accurate and internationally comparable measurement of waste flows remains a challenge. The United Nations Statistics Division (UNSD) has been collecting waste statistics through the UNSD/UNEP Questionnaire on Environment Statistics since 1999 from over 160 countries and areas not covered by the OECD and the Statistical Office of the European Union (Eurostat) through a fully coordinated data collection process. Although a response rate of over 50 per cent has been reached in the latest two data collection rounds, there is still much scope for improvement in response rates. Data completeness and data quality also remain a challenge, especially for developing countries, and national capacity constraints (financial, human, technical) continue to be a concern. Given the importance of producing national data on waste for quality and informed decision-making, for the measurement of the circular economy, and the fact that these data are extremely pertinent to the monitoring of several SDGs, it is critical to improve the production of waste statistics, as well as increase training and capacity-building in this area.

National governments can facilitate the transition to a circular economy, particularly in early phases by: Regulating the phasing out of hazardous substances from products; Raising standards for recycling and repairing products; Introducing or strengthening “extended producer responsibility” schemes; and Introducing requirements for eco-design. Public policies can also support the transition by providing tax incentives to consumers and producers and will function best when they are informed by accurate and internationally comparable statistics; leveraging public expenditure to stimulate markets for sustainable

---

**SOURCE**

Ellen MacArthur Foundation
Circular economy/systems diagram (February 2019)
www.ellennmacarthurfoundation.org
Drawing based on Braungart & McDonough,
Cradle to Cradle (C2C)

---

1 Hunting and fishing
2 Can take both post-harvest and post-consumer waste as an input

---

4 UNSD, UNSD/UNEP Questionnaire on Environment Statistics. Available at: https://unstats.un.org/unsd/envstats/questionnaire
products and services and help steer society towards more sustainable consumption and production patterns; and enhancing efforts to build the requisite capacity for the effective management of sustainable public procurement at all levels.\(^8\)

Information and Communication Technology (ICT), including digital technologies and electronic devices, plays an important role in the global shift towards a circular economy. As the number of ICT-connected devices rapidly increases, massive amounts of data and opportunities are generated to increase resource productivity, extend product lifecycles, reduce greenhouse gas emission and improve the overall efficiency of our global systems. However, today’s connected devices may become tomorrow’s e-waste. Indeed, E-waste is already the fastest growing waste stream in the world, and is forecast to reach 75 million tons in 2030. The negative environmental impacts of our digital future could outweigh the benefits if we fail to proactively embed sustainability by design. There is much room for innovation to leverage ICTs to better track products throughout their lifecycle to move towards service models; remote upgrades; product take back; and remanufacturing in the circular economy.

International cooperation among circular economy value chains could hold great potential for standardizing the quality of materials, promoting demand for second-hand goods and secondary raw materials, removing unnecessary regulatory barriers, and avoiding environmentally harmful production. Links between the circular economy and international trade are numerous and can occur at various points along product value chains, for example: trade in materials and waste for recycling and energy recovery, trade in secondary raw materials, trade in second-hand goods, and trade in goods for refurbishment and remanufacturing.\(^9\)

THE COOPERATIVE DIFFERENCE

It is clear that achieving sustainable development requires transformative change in the production and consumption patterns. The conventional paradigm of short-term profit maximization regards environmental sustainability as an extra cost to be minimized, together with the cost of labour. The current state of our world is a resounding refutation to the ability of this paradigm to realize such a transformation automatically or fast enough. On the contrary, other models of enterprise, such as cooperatives are existing agents and vehicles to promote the transformation. Cooperatives include organizations and enterprises such as mutual associations, community organizations, self-help groups, consumer groups, associations of formal and informal workers, fair trade, solidarity financing and community savings schemes.\(^10\) They have sustainability in their DNA, with “concern for community” being one of their guiding principles. Because their identity is based on ethics and values, cooperatives understand that their businesses cannot survive long-term without sound environmental practices, decent work for members and employees; and inclusive, broad-based decision making.

Cooperatives are autonomous associations of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through jointly owned and democratically controlled enterprises.\(^11\) Cooperatives are a powerful economic and social force that can also benefit the environment. They are present in most countries of the world and in all sectors of the economy. The cooperative movement counts more than a billion members worldwide.\(^12\) Many cooperatives were established during periods of market failure, including the great depression of the 1930s and are still flourishing today. Many have proved their resilience and abilities to survive and thrive during periods of social and economic strife. For example, during the 2008 financial crisis, while many banks and other private sector institutions received government bailouts, financial cooperatives continued to thrive.\(^13\)

Many cooperatives have been innovators in sustainable resource management in their sectors – launching consumer awareness programmes, developing recycling policies, and spearheading food waste reduction initiatives.

THE SOCIAL AND SOLIDARITY ECONOMY

The United Nations Task Force on Social and Solidarity Economy considers the SSE to consist of enterprises and organizations that have explicit economic and social (and often environmental) objectives; that involve varying degrees and forms of cooperative, associative and solidarity

---

8. ECOSOC resolution 2021/12, para. 11
12. Report of the Secretary General: Cooperatives in social development. A/74/206
relations between workers, producers and consumers; and practice workplace democracy and self-management.  

Active in almost all economic sectors, the variety of organizations making up the SSE have been shown to contribute to all 17 SDGs. The Goals on Decent Work (SDG 8), Gender Equality (SDG 5), and Sustainable Production and Consumption (SDG 12) are among those most strongly associated with the SSE’s impacts. Their diversity in terms of organizational and financial models, the flexibility with which its principles can be applied across sectors, and their rootedness in local contexts, means that many SSE organizations have become leading innovators, creating novel solutions for economic, social and environmental challenges.

Cooperatives are the core members of SSE, although precise figures on cooperative and the broader SSE sector are hard to come by since internationally comparable data on cooperatives are not regularly collected in most countries. To better measure cooperative sector’s contribution to socioeconomic development and the implementation of the 2030 Agenda, the Committee for the Promotion and Advancement of Cooperatives (COPAC) recently produced standards for collecting data on cooperatives, which has been adopted by the ILO International Conference of Labour Statisticians in 2019 and is undergoing pilot testing in a few countries.

Further work on cooperative statistics is needed. Parallel efforts should also be made to expand such work to collect quantitative and qualitative information on the wider SSE. The UN handbook on national accounts has recently been updated in 2018 to present the measurement framework to cover these and other entities of the Third Sector. The International Cooperative Alliance (ICA) estimates that more than 12% of the global population are members in any of the 3 million cooperatives, and that over 280 million people are employed by a cooperative, equaling 10% of the world’s employed population. The European Union (EU) estimates that in its 27 member states there are more than 2 million SSE enterprises, representing 10% of businesses, and employing more than 11 million people, roughly 6% of the EU’s working population.

COOPERATIVES, SSE AND THE CIRCULAR ECONOMY CONTRIBUTING TO SDGS FOR A SUSTAINABLE FUTURE

Examples of cooperatives in activities of the circular economy that contribute to many SDGs could be found in UN Secretary-General’s reports to the General Assembly on the role of cooperatives in social development. More information is available from the knowledge hub of the UN Task Force on SSE. This section of the Brief highlights some specific examples where these enterprises and organizations engage in the circular economy and promote the achievement of multiple SDGs.

Cooperatives participate in the recycling of waste and materials and in the generation of renewable energy. Cooperatives in Brazil are developing new method of biofuel production. Canada had 70 renewable energy cooperatives in 2011. In Denmark, 23% of wind power was produced by cooperatives in 2004. Renewable energy cooperatives in Germany are making considerable contributions to the country’s energy transition. A cooperative in Kenya used the solar resources in abundance in the area to generate energy, providing clean and safe energy while lifting members out of poverty. There was also improvement in examination results at Kyaka Primary School, which received electricity through the cooperative.

Informal waste pickers are important participants in waste management that is an integral part in the circular economy yet their efforts remain difficult to capture via official statistics. Further they are exposed to health hazards and social exclusion. Cooperatives and SSE organizations play a critical role to promote greater protection of waste pickers and an inclusive circular economy. In Brazil, waste pickers’ cooperatives and other SSEs set up at municipal level have played a key role in passing federal legislations that recognize the role of waste pickers in collecting and recycling materials. Association of Collectors of Paper, Cardboard and Reusable Material (ASMARE), formed in 1990 in Belo Horizonte, Minas Gerais State has represented the voice of waste pickers in various policy dialogues on waste management at municipal and state levels. Cooperative Association of Recyclers of Bogotá (ARB) in Colombia is a federation of 17 cooperative organizations representing around 1,800 waste pickers in Bogotá, Colombia. ARB brought cases to the judicial

14 https://unsse.org/sse-and-the-sdgs/
15 For a list of publications about SSE as a means of implementation of the SDGS, browse the United Nations Task Force on Social and Solidarity Economy’s Knowledge Hub at: https://knowledgehub.unsse.org/
17 International Cooperative Alliance: Facts and Figures. Available at Facts and figures | ICA
system to defend waste picking as a profession especially by using protection of fundamental rights to the Constitutional Court of Colombia. The Constitutional Court’s pronouncements were instrumental in negotiating an inclusive waste management policy and introducing a new remuneration scheme to compensate waste pickers for their services in March 2013. The policy benefitted waste pickers beyond ARB members.\textsuperscript{19} The formalization of waste pickers means their efforts can be better measured via waste statistics compiled by national statistical offices that will better inform circular economy policy.

Self Employed Women’s Association (SEWA) in India is a trade union founded in 1972 in Ahmedabad, Gujarat that represents 1.5 million women working in the informal economy. In addition to representing women’s voices and advocating for improved working conditions for female informal workers, SEWA also provides financial services, healthcare, child care, microinsurance and other benefits to its members through women’s cooperatives. It has been playing a key role in promoting empowerment of women and girls for gender equality. There are about 50,000 waste pickers in Ahmedabad, more than half of whom are SEWA members. Since the 1990s, SEWA has supported the establishment of several waste pickers’ cooperatives including Karyasiddhi Mahila Cooperative, Saundarya Mahila Cooperative, and Gitanjali Cooperative.\textsuperscript{20}

The United Nations Development Programme in Turkey supports two women’s cooperatives to promote sustainable livelihoods for and social inclusion of Turkish and Syrian women through manufacturing of secondary products from recyclable materials in Kilis and Haliliye. Through this engagement, the project contributes to poverty eradication, social inclusion, and social cohesion that builds a peaceful society. The Agricultural Development Cooperative of Limited Liability of Kocabeyli, Karaçavuş, Süngütepe and Saatli Villages uses olive pomace waste, which is produced in olive oil facilities and harmful to the environment, to make olive oil as material to make soap, generating sustainable income for members. Women’s Cooperative for Enterprise, Production and Operation in Haliliye district of Şanlıurfa collects bio-decomposable waste from 7,500 homes, 500 restaurants and plant pruning waste from parks and gardens. These waste materials are composted to be used as a natural fertilizer for growing plants and flowers to enrich and adjust soil balance.\textsuperscript{21}

**CONCLUSIONS**

Realizing the SDGs with shared prosperity for people and stewardship of the planet requires changes in production and consumption patterns. Strategies for better recovery from COVID-19 crisis are an opportunity to promote and implement such changes.

The concept of the circular economy represents a fundamental change in the approach to economic activities so that natural resources as well as post-consumption waste are explicitly measured and taken into account. Production and consumption patterns that are sustainable and equitable are emphasized in the circular economy model, making this approach to the economic system a suitable vehicle to promote the paradigm shift to effect changes in mindset and behavior necessary to enable changes in production and consumption patterns. Investment for the protection and conservation of nature as well as for more efficient utilization of natural resources should be prioritized. Sustainable public procurement at all levels can play an important catalytic role in the efforts to promote changes towards sustainable production and consumption patterns.

The values and principles of cooperatives and other enterprises and organizations of the SSE, namely solidarity, enterprise and care for the community, are naturally aligned with the vision of the 2030 Agenda. They are partners with Government and the international community to promote innovation and enterprise model for SDGs. They are active participants in the circular economy.

Strategies for a better recovery from the COVID-19 pandemic towards a more sustainable future embedded with social and environmental sustainability as objectives should include national policies as well as international cooperation to promote the circular economy and the growth of cooperatives and the broader SSE. To best leverage the strength of cooperatives and the SSE to support the 2030 Agenda, governments should also further improve changes in production and consumption patterns. Strategies for better recovery from the COVID-19 crisis are an opportunity to promote and implement such changes.

\textsuperscript{20} ibid
\textsuperscript{21} UNDP, UNDP Turkey supports women’s cooperatives, waste recycling, and women’s participation in labour force in Kilis and Şanlıurfa, https://www.tr.undp.org/content/turkey/en/home/presscenter/articles/2021/03/Kilis-Sanliurfa-Kadin-Kooperatifleri.html, 23 March 2021.