

JUST2CE

A Just Transition to Circular Economy



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CONCLUSIONS

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This eBook aims to provide scholars, practitioners and policymakers with an overview and a rigorous and exhaustive analysis of the complexity and criticality of the current state-of-the-art knowledge in the field of CE. These aspects have been analysed in the various chapters (using a variety of methodological, theoretical and empirical methods in different socio-economic contexts). The book provides a broad picture of the problems, criticalities and barriers characterising the current transition towards a just CE. In line with the spirit of this e-book and the project behind it, the contributions of the chapters have directly and indirectly brought out a certain number of indications for transformative policies capable of changing the assumptions underlying the current linear economy model and directing attention towards more comprehensive CE models, based on stakeholder engagement and socially awareness both in terms of research and practice. The salient points of these transformative policies and research implications are summarised below.

Transformative policies

The mainstream neoliberal CE model cannot jointly address social and environmental perspectives and goals. A new socio-economic phase is emerging that calls for models that are more aware of social needs and environmental justice implications. This emerging phase should lead towards Transformative Policies capable of generating more comprehensive and socially inclusive CE models in research and practice.

Integrating diverse groups, cultures, and areas is critical in a globalised world. A transformative CE model must focus on GN and GS relations aiming to highlight (and change) the impacts of GN decisions on GS (both at production and consumption level). It is vital for the GN, as well as for the affluent classes in the GS, to transform their materialist and consumerist lifestyle, as it is at the heart of present injustices and socio-ecological impacts.

A transformative model of society must focus on stakeholder engagement so that citizens are not just consumers but actively contribute to the CE transition, for example, as producers, users, and repairers. The EU should make changes to its CE policies to prevent widening the gap between different areas and increasing social and environmental injustices. A TP should feed these changes towards a more just transition by integrating, on the one hand, the specificities of different geopolitical contexts and, on the other, environmental and social justice with the CE. In particular:

- a. TPs must consider geopolitical differences within the EU and meet long- and short-term needs. In the GN, policies are business-oriented, and citizens have little or no power. In many GS countries, policies are more flexible but limited by the rules of large companies from the GN. TPs should focus on decolonising circularity,

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that is, considering the plurality of forms of understanding and implementing CE and disrupting geopolitical power relations;

- b. TPs should focus on integrating environmental and social justice issues into CE policies, in order to avoid perpetuating the same environmental and social injustices created by the current linear economic model.
- c. Just as an example, gender considerations in the CE perspective should go beyond the SDG approach and lead towards reframing valuation systems so that they can properly incorporate social and reproductive work, which is crucial for socio-ecological sustainability. Gender justice must thus play a key role in both CE research and policy. TPs should focus on the causes of labour inequalities that are being reproduced by the application of CE. More research and analysis are needed to generate and disseminate the appropriate knowledge on the causes of these problems and the cultural/interpretative approaches to be adopted.

Socio-ecological systems should be guided by concepts of common good, public happiness, and quality of life. These principles must be stated as unavoidable requisites for a TP aimed at creating a virtuous circle with institutions, policymakers, citizens and companies. Non-quantitative indicators are needed to map the complexity and the different ways this vision of social and ecological well-being is advanced. Any transformative policy seeking to create desirable sustainable futures must consider the need to grasp and *protect* the variety of relations between human and more-than-human life. To meet this crucial task, any socially desirable CE should conform to the concept and practices of Responsible Research and Innovation (RRI). The latter puts people and the planet at the centre of the debate and helps design transformative policies aiming to achieve both social and ecological well-being.

As a consequence of such a well-being vision (common good, public happiness, life quality), new metrics and new indicators capable of capturing the different dimensions of sustainability constitute an indispensable element for the transition towards a more socially aware CE. The transition to a more sustainable socio-ecological system and CE cannot be pursued in the context of the current growth-based capitalist economies. TPs towards a just transition to socially aware CEs must take into account social variables and related drivers and influencing factors. TPs must consider different geopolitical aspects and socio-ecological models (production and consumption) in the GS and the GN to respect local specificities without imposing production and consumption models that generate economic, social, labour and environmental injustices.

It is well known that Africa is a very differentiated reality from multiple points of view (economic, social, natural, cultural, political). A CE policy for the entire continent is still missing, and CE is not yet part of Agenda 2063; nevertheless, country-specific actions have been adopted. A transformative CE policy for all of Africa should be adopted, which considers country differences and similarities. This is key to react to the power of countries and companies of the GN. In contrast, the EU has one of the best CE regulatory systems, which is recognised worldwide. However, the results of these systems are not equitably shared among countries, and actions high in the EU waste hierarchy (prevention) are poorly supported. Finally, CE policy approaches adopted by China and India highlight different levels of progress in both countries. China seems to be moving beyond waste management and adopting policies that address social goals and the targets of SDGs (Xie et al., 2021).

The diverse scenarios that emerge in different economic and geographical areas highlight the importance of sharing political actions and involving stakeholders and citizens in influencing the affirmation of different CE perspectives. Transformative innovation policies must take into account territory-specific factors in order to

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support local communities in their efforts towards a just transition. Stakeholder engagement, cultural diversity, local experiences and community needs are crucial to transform the CE transition into a just transition and improve socio-ecological well-being. As a consequence, policymakers will have to increase their efforts towards appropriate and unified norms at the global level while ensuring flexibility of their application at local levels. In this regard, it is vital to use qualitative and quantitative indicators to measure progress at appropriate spatial and temporal scales, including environmental and gender dimensions and levels of stakeholder engagement.

Policy implications

A deep consideration of the Chapters in this e-book highlights the importance of critically evaluating the CE paradigm to foster a just transition, particularly concerning unaddressed topics such as environmental and social injustices. As a result, it emerges that appropriate TPs may have a key role in supporting a transition to CE and reducing the current environmental and social injustices, including those based on gender. Most case studies in the literature still provide a reductive vision of the CE, excessively focused on waste management and recycling. Waste recycling is a secondary solution compared to reusing, repairing, and preventing waste production by design, aiming to extend product life and reduce resource consumption. CE is a much wider concept that involves the entire socio-ecological system of a country, from production to consumption. Furthermore, CE is considered by some an umbrella concept (Murray et al., 2017) since it originates from different schools of thought that break with the neoclassical theory and envision socio-ecological change with varying levels of radicality. Chapter 1 points out the importance of environmental services provided for free by Nature. As suggested by Pearce and Turner (1989) and by Odum H.T. and Odum E.P. (2000), disregarding the contribution of environmental services would only end up strengthening the linearity of the economic system. Consequently, chapter 1 has briefly outlined some emerging conceptual solutions for a more socially aware CE, such as the “social & solidarity economy”, the “care-centred economy”, and the “civil economy” paradigms. These are important models to monitor for policy purposes since they appear to overcome the limits of the mainstream CE, which is still based on the neoclassical paradigm where economic decisions are mainly driven by prices and profit and consumption maximization goals and neglect the social impacts and injustices generated in the society.

It should be highlighted that the current focus on mainstream CE gives rise to serious problems, in clear contrast with the just transition approach. For instance, the trade and flow of waste from the North to the South, and the poor working conditions in which waste collection and recycling activities are carried out in the GS (e.g. case studies of waste pickers in Bangkok, in Brazil, in Ghana for example; nevertheless, in the GN the case of Barcelona and Catalonia showed that about 5000 informal waste collectors worked in that region, shedding light that the phenomenon is also present in the EU).

This highlights that implementing a CE, particularly in the sectors of waste management that are regulated and oriented towards the objective of economic efficiency and recycling (e.g. WEEE, municipal solid waste), addresses only some of the environmental and social impacts or externalities of waste management. Therefore, to ensure a just transition to CE, an in-depth analysis of the impacts on the most vulnerable people in the GS.

The studies in the book also show that a transition to CE in the GN has negative effects in other geographical areas, particularly in the GS. More precisely, relevant obstacles to a just transition are the formally regulated waste

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management and recycling systems and their market-based objectives focused on economic efficiency at the expense of environmental and social objectives. As a result, the consideration of alternative and more participative business models as well as economic paradigms beyond neoliberalism is essential to reform the formal systems of waste management and recycling and their functioning.

Research implications

Focusing on the three parts, the topics of interest towards which scholars could address their future research efforts can be summarised as follows.

Part I: Basics of the CE and state of the art

- CE models that are capable of interpreting and representing greater social awareness.
- Identifying barriers and driving factors towards a Just to CE transition and the related determining factors.
- Considering measures of shared responsibility between different actors/countries in technological transition processes, as highlighted in the case of electric vehicle technology.
- Greater attention to initiatives and strategies for stakeholder involvement in the transition to a just CE to incorporate economic, social and environmental issues.
- Evaluate the specific factors of regional models of EC development for a better plurality of theorisations and interpretations capable of supporting the adoption of appropriate political measures for a just transition towards the EC.
- Comparisons of GN and GS case studies are needed to evaluate possible common patterns and best practices.
- Application of a decolonial approach to facilitate the understanding of the costs and benefits of a CE transition for a wider range of peoples and territories.

Part II: Measuring the Circular Economy

- A further and more in-depth exploration of indicators beyond GDP, especially indicators that meet stakeholder expectations and needs regarding the measurement of performances in the CE transition.
- A further and more in-depth exploration of new hybrid research approaches for indicator development as an alternative to the normative approach to support management strategies and policymaking.
- Assessment of the practical application of CE transition frameworks based on the pillars of responsible research and innovation to better understand their practical value and limitations.
- Evaluation of how the CE contributes to achieving sustainable development goals in the GS context and how the research knowledge collected so far is favouring the improvement of well-being in the GS.
- Further exploration of indicators and existing methods (for environmental, social and economic assessment) to understand their strengths and weaknesses and how they could be integrated to measure and promote a CE transition that increases socio-ecological well-being.

Part III: Towards a Just CE: key concepts, national paths, and scenarios

- Analysis of winners and losers in CE transition and identification of appropriate policy measures to mitigate the stakeholders affected negatively by the transition.
- Identification and analysis of environmental and social benefits and costs of measures to improve the labour conditions and life of waste pickers. In particular, more in-depth exploration is needed to facilitate the integration of informal waste pickers in the formal economy and improve their technical and entrepreneurial skills to improve their income.
- Analysis of the gender dimensions in CE transition through case studies, in particular from the GS, since most of the current empirical cases regard the GN.
- Case studies adopting a gender innovation perspective in the research process to better understand the implication of a CE transition on reproductive care work and on women and other vulnerable people.
- Analysis of qualitative aspects related to labour in CE case studies to understand the point of view of labour about the CE transition and its implications. Studies about workers' decision-making power and agency, gender inequalities and racism in the labour market are also very welcome since such aspects are rarely investigated by the current literature. There is also a lack of studies addressing informal workers' labour conditions in the GN, such as the case study of Barcellona waste pickers workers.
- Analysis of policies and regulations supporting the take-up of CE practices in Africa, including: a) green public procurement, infrastructure and technological development, and financial instruments; b) support to entrepreneurial activities, improvement of data collection and management about resources flows and their recirculation in the economy; c) environmental and social assessment of benefits and costs of the adoption of digital and innovative technologies and automation.
- Given the EU's diversified state of the CE transition, case studies of well-performing areas are required to disseminate best practices and help less-performing regions reach a more equitable CE transition.
- Environmental and social assessments of CE development in China and India are also relevant and much needed, especially considering a just transition lens.
- More research is needed to shed light on citizens' preferences for future circular scenarios and what circular economy and society policies they would choose in a democratic context. This analysis would help policymakers and practitioners envision a more desirable circular transition that could bring about human and planetary well-being.

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