

# JUST2CE

A Just Transition to Circular Economy



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# CHAPTER 13

## The Link between the Sustainable Development Goals and the Circular Economy on the African continent

## Chapter 13. The Link between the Sustainable Development Goals and the Circular Economy on the African continent

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### Abstract

In 2015 all United Nations member states adopted the 2030 Agenda for Sustainable Development including the Sustainable Development Goals (SDGs). Concurrently new economic concepts such as the Circular Economy (CE) have gained traction counteracting the current linear economy. However, the CE has been rather resource focused e.g., waste management especially from a GN perspective. The research question this chapter addresses is: To what extent can the CE contribute to the achievement of the SDGs in Africa, especially those with a social focus? To better understand the current landscape of literature concerning the ties between the CE and the SDGs a bibliometric analysis was conducted. It is apparent that the topic of SDGs and the CE is also receiving increasing interest in Africa; however, the number of scientific publications produced in this region drastically lags behind those of the GN. Additionally, SDGs with previously weak or no link to the CE are further discussed, demonstrating that the CE can support the achievement of these SDGs as well (3, 5, 10, 11 and 16). We argue that the CE can be used as an overarching framework to achieve most SDGs.

**Keywords:** SDGs, CE, Sustainable well-being, Africa,

This contribution investigates the links between the circular economy and the Sustainable Development Goals in particular for the African continent, critically questioning both concepts and discussing how the circular economy can further contribute to achieving all Sustainable Development Goals.

### 13.1 Introduction

In 2015 all United Nations (UN) member states adopted the 2030 Agenda for Sustainable Development (United Nations General Assembly, 2015). At its core, the Agenda aims to create peace and prosperity and build a

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sustainable future for all people and the planet, now and for the future, targeting the most pressing global challenges of climate change and social inequalities. To achieve the Agenda, 17 ambitious Sustainable Development Goals (SDGs) with 169 targets were developed (**Figure 13.1**). All member states of the UN, 193 of the total 195 countries have signed the Agenda (United Nations, 2015).



Figure 13.1 Sustainable Development Goals and their overarching aims. Graph from (United Nations, *n.d.*).

Simultaneously with the adoption of the SDGs as global development framework, alternative economic concepts such as bio-economy, green economy and CE have come to the forefront (D'Amato et al., 2017). Some of these economic concepts have been discussed since the 1960s (Boulding, 1966), to counteract the current linear economy of resource extraction, manufacture, use and disposal. The linear economy has led, and is leading, to the overshoot of planetary boundaries and adverse impact on society (Fanning et al., 2021). This chapter will examine and contribute to existing literature around the connection between the SDGs and the CE focusing on the African context from a social perspective.

## 13.2 Literature review

The hope is that a change in our current economic activities and transitioning towards a CE will support the achievement of the SDGs. However, the different economic models have various foci, from nature-based solutions, development and usage of bio-based materials to replacing fossil-fuel based materials and new circular business models to name a few examples (D'Amato et al., 2017; Korhonen, Honkasalo, et al., 2018; Lewandowski, 2018). These new economic concepts are still being shaped by different stakeholders, which is also the case for the CE.

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The CE has received increasing attention by the private sector throughout the last years (Homrich et al., 2018; Kirchherr et al., 2023; Korhonen, Nuur, et al., 2018). On policy level it is actively being built into strategies, roadmaps, action plans, policies and legislation such as the rules promoting the repair of goods (European Commission, 2023) and Extended Producer Responsibility<sup>19</sup>. The CE is regenerative and restorative by design, where products and services are designed from a life-cycle perspective (from production to end-of-use), waste and pollution is, as much as possible, designed out (e.g., reusable containers instead of single-use packaging), resource use is minimised and natural systems are regenerated (Andersen, 2007; Braungart et al., 2007; D'Amato et al., 2017; Ellen MacArthur Foundation, 2013). Systems thinking is at the core of the CE where, for example, the agricultural sector cannot be seen in isolation from the water cycle or the manufacturing sector. This makes the achievement of a CE highly complex, because our global economy is a web of interconnected networks and changing one thread of the web will have knock on effects or shifting of burdens in another part, if not carefully implemented.

There are multiple reasons to better understand the link between the SDGs and the CE. Firstly, it is crucial to streamline processes to avoid having conflicting strategies, action plans and policies in place, that might duplicate efforts, oppose one another or enhance a silo approach in the private and public sectors around the SDGs and CE. Policy makers and other key stakeholders do not have the time to fully immerse themselves in all the different concepts hence it is important to create linkage. Secondly, it is important to extend the link between CE and SDGs beyond SDG12 (responsible consumption and production) alone, because we need to develop harmonised metrics that combine the progress in both areas and that accurately measure progress and help us to understand impact going beyond a decrease in greenhouse gas (GHG) emissions. Thirdly, limited resources be it financial, human capital and time are a serious constraint for emerging economies, which are also asked to participate in a green transition, may it be bio-based and/or circular, and the achievement of SDGs. Emerging economies are in different positions to so-called *developed*<sup>20</sup> countries, which is not necessarily always a disadvantage, because these countries can leapfrog and avoid making the same mistakes as developed countries e.g., technological lock-in. However, it requires different and more systemic efforts to address challenges such as high-unemployment rates, poverty, inequality, urban migration, loss of biodiversity, provision of basic human needs, and the keyword here is simultaneously. Away from a silo approach, towards a systems approach. It also requires a different perspective, keeping in mind that we are all influenced through our upbringing, culture(s), experiences and environments. This should also open up the discussion if emerging economies need to fit into a framework like the SDGs, which can be viewed as a (neo)liberal concept that still supports the notion of 'traditional' economic growth, and which does not speak to (international) power relations, or structural challenges of poverty, nor does it embed economic activities deeply into ecological processes (van Norren, 2020).

This chapter invites the reader to dive into the linkage between the CE and the SDGs focusing on the African continent, while also posing critical questions. The research question of this chapter addresses is, "To what extent can the CE contribute to the achievement the SDGs in Africa, especially those with a social focus?"

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<sup>19</sup> "Extended Producer Responsibility (EPR) as an environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle. An EPR policy is characterised by: the shifting of responsibility (physically and/or economically; fully or partially) upstream toward the producer and away from municipalities; and the provision of incentives to producers to take into account environmental considerations when designing their products. (OECD, n.d.)"

<sup>20</sup> A developed country is defined as a 'country with a lot of industrial activity and where people generally have high incomes'(Cambridge Dictionary, n.d.). However the definition does not speak to wellbeing factors such as satisfaction, intact environment, independence.

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Many see sustainability as the umbrella concept and acknowledge that the CE has, thus far, been rather resource and waste focused, merely including the social dimension often only in the context of the number of jobs created (Guillibert et al., 2022), even though the concept is regenerative at its core which should include human well-being. This is a challenge to the African continent considering that unemployment and underemployment, energy price shocks, failure and lack of development of critical infrastructure, water and food crises (The World Bank, 2023; World Economic Forum, 2019) are only some of the most pressing challenges that affect the fulfilment of fundamental human needs (FHNs) such as subsistence, protection, affection, participation, understanding, idleness, creation, identity, and freedom. (Max-Neef, 1991). Sub-Saharan Africa (SSA) has the youngest and fastest growing population worldwide (United Nations Department of Economic and Social Affairs Population Division, 2022). The narrative of a rising middle class (Melber, 2022) has also stirred the interest of multinational corporations to further expand on the continent giving rise to companies like SHEIN, which is not a fast fashion but real-time fashion<sup>21</sup> company. However, the required infrastructure, skills and resources are not in place to deal with the negative impacts of waste generated from overconsumptions. In the case of SHEIN, it is driving an unsustainable and wasteful fashion industry. Africa is also still in the grip of neo-colonialism and neo-imperialism, for which its raw minerals and arms trade are good examples (Wilczyński, 2021). Thus, rethinking how Africa is structuring its economies are key in preventing lock-ins and the acceleration of a linear economy on the continent.

### 13.3 Methodology

To better understand the current landscape of literature concerning the ties between CE and the SDGs a bibliometric analysis on the Scopus database using R studio and the web-based interface Biblioshiny for Bibliometrix (version 3.3.0) was employed. The initial data collection took place on 23/05/2023 whereby the authors used the following search string: "Sustainable Development Goals" and "Circular Economy" focusing on literature in English. The authors agreed to only search title, abstract and keywords for "Sustainable Development Goals" and "Circular Economy" to avoid irrelevant papers that made passing comment on these terms. Additionally, the search was confined to post 2016 as an already existing paper by Geissdoerfer et al. (2017) employed a similar research method for literature preceding 2017. However instead of searching for sustainability and CE as it was the case for Geissdoerfer et al. (2017), this research focused on CE and the SDGs. The results of this initial search string were then further refined within Scopus to literature produced within or collaborated on, by African countries. Additionally, the authors attempted to further refine the scope by searching Scopus for the specific countries within Africa that had produced literature on the subject, however this gave incomplete results, likely because the relevant papers did not include geographical locations (country level) within their title, abstract or keywords. Secondly, the authors looked at the progress towards the SDGs and then the CE before looking at both concepts jointly. CE practices that were considered as having a weak or no link in supporting the SDGs according to Schroeder et al. (2019) were further discussed within the African context.

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<sup>21</sup> Real-time fashion also called ultra-fast fashion has even a shorter turnaround time of producing fashion compared to fast-fashion and can react to current customer demands and trends by monitoring social media. (Commons Teams, 2023)

## 13.4 Results

### 13.4.1 Bibliometric Analysis

Using the above methodology, Scopus returned a total of 764 papers between the years of 2017 and 2023 that concerned SDGs and CE. Literature produced on the topic grew at an annual rate of 59%. A 38% international co-authorship amongst 88 different countries was also detected. Countries that had a strong publication output around the search string were China, India, Australia, Europe, North America and Brazil (Figure ).

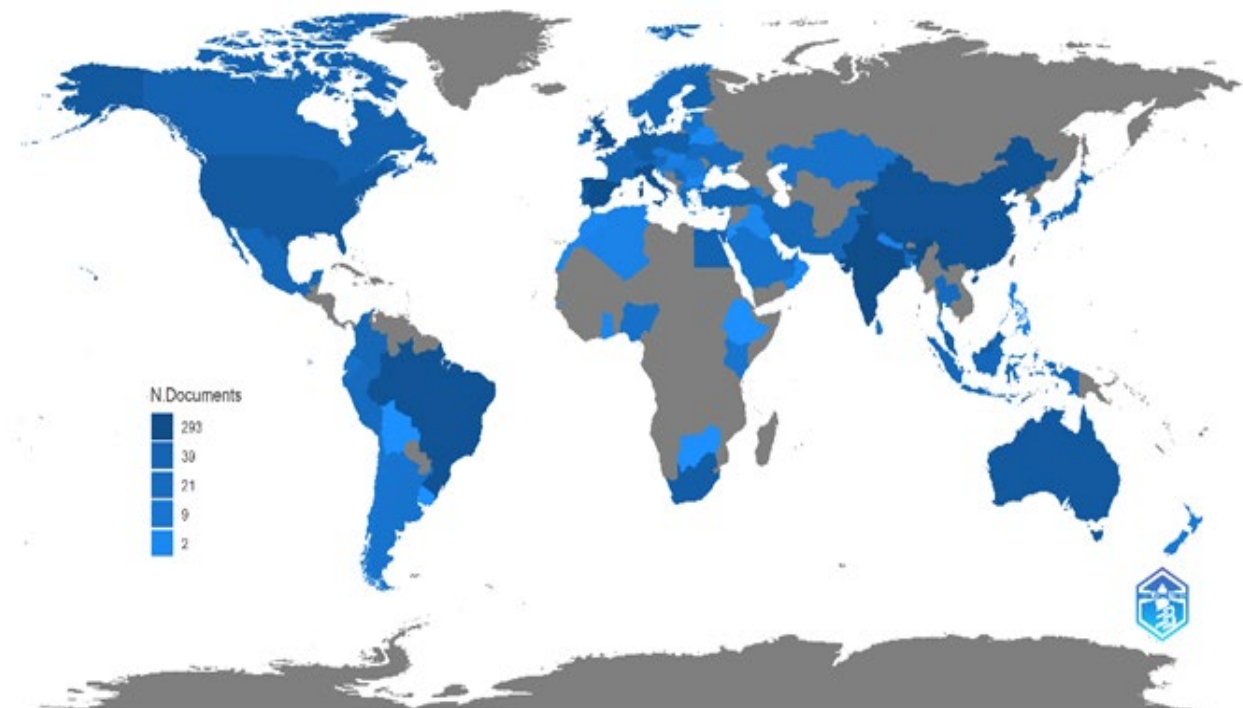


Figure 13.2 The map illustrated global publication of literature concerning CE and SDGs. Graph generated by Biblioshiny

Using this initial dataset, the authors further limited the papers published in Africa. This resulted in 68 papers from 13 African countries, namely: South Africa, Zimbabwe, Botswana, Egypt, Ghana, Malawi, Nigeria, Tunisia, Ethiopia, Gambia, Mauritius, Morocco and Kenya. Similar to the global dataset, the topic of SDGs and CE grew at a 41% annual rate on the continent and a 66% co-authorship rate.

Table 13.1 Number of global and African publications concerning SDGs and CE since 2017 until May 2023. Source: Authors

Year	Number of publications globally (Including Africa)	Number of African publications
2017	8	0
2018	23	0
2019	47	4
2020	109	8
2021	190	13
2022	256	27
2023 (until May)	131	16



The most fruitful international collaborations were between Egypt and the UK (9), South Africa and the UK (6) and South Africa and India (4) (Figure).

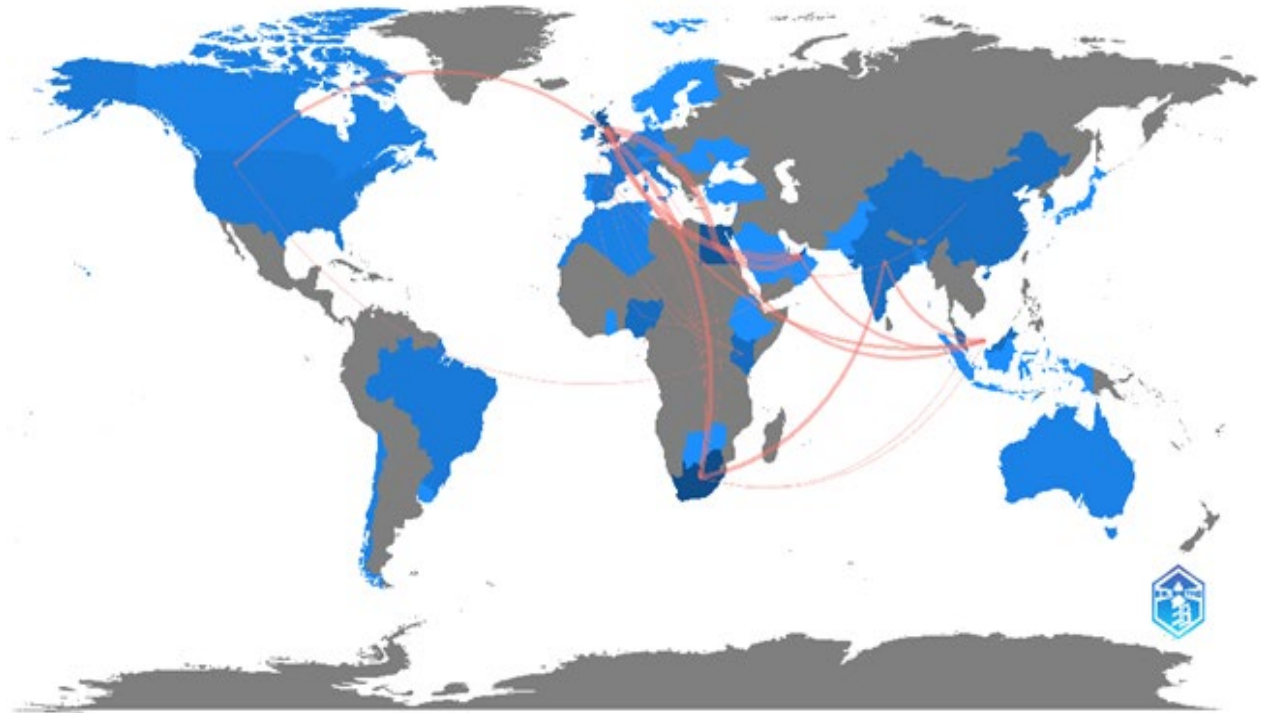


Figure 13.3 International collaboration between African countries and the rest of the world regarding publications on CE and SDGs. Graph generated by Biblioshiny

While the results of the above search string are encouraging, of the hundreds of papers above, only nineteen on Scopus were found to contain "Africa" in the abstract, in conjunction with SDGs and CE. Although the authors identified numerous papers not included in the Scopus databases (Boon & Anuga, 2020; Desmond & Asamba, 2019; Furlan et al., 2021; Naidoo et al., 2021; Wright et al., 2019)

that matched the initial search inquiry, it nevertheless illustrates the deficiency of scientific literature concerning CE and SDGs in an African context. To the knowledge of the authors additional grey literature exists (Chatham House et al., n.d.; Godfrey, 2021; Schröder & Raes, 2021) which also links Africa, CE and SDGs. Additionally, while several European countries as well as the EU have begun creating CE roadmaps and/or action plans at a national level (UNECE, 2021), the scientific literature concerning Africa indicates that the focus remains on localised initiatives or targeted towards specific industries such as waste management. Specific African countries have already developed or are currently developing CE action plans and/or roadmaps<sup>22</sup>. It would be a good exercise to further investigate how national CE roadmaps and/or action plans have been linked to SDGs, if at all.

### 13.4.2 Progress towards SDGs in Sub-Saharan Africa

Currently, the progress of each country towards the SDGs is measured by an SDG index score which allows countries to be ranked towards the achievement of all SDGs based on annual reports submitted by the countries

<sup>22</sup> Rwanda, Ghana and Kenya.

(Sachs et al., 2022). However, the index does not take into account the simultaneous achievement of the SDGs and measures each SDG on its own. Further, the targets attached to each SDG are not always quantifiable and, in some instances, can be ambiguous (van Vuuren et al., 2022). Hence, a target space with limited indicators has been proposed (van Vuuren et al., 2022). Despite this limitation, the SDG index score gives a good indication of where countries are at with their respective development towards achieving the SDGs. The SDGs index scores has a large range in Sub-Saharan Africa (SSA). The Republic of Cabo Verde has the highest SDG index score with 68.4 amongst SSA and is ranked on place 89 globally. The country in SSA with the lowest SDG index score is South Sudan with 39.05 which ranks it in last place globally. (Sachs et al., 2022)<sup>23</sup>.

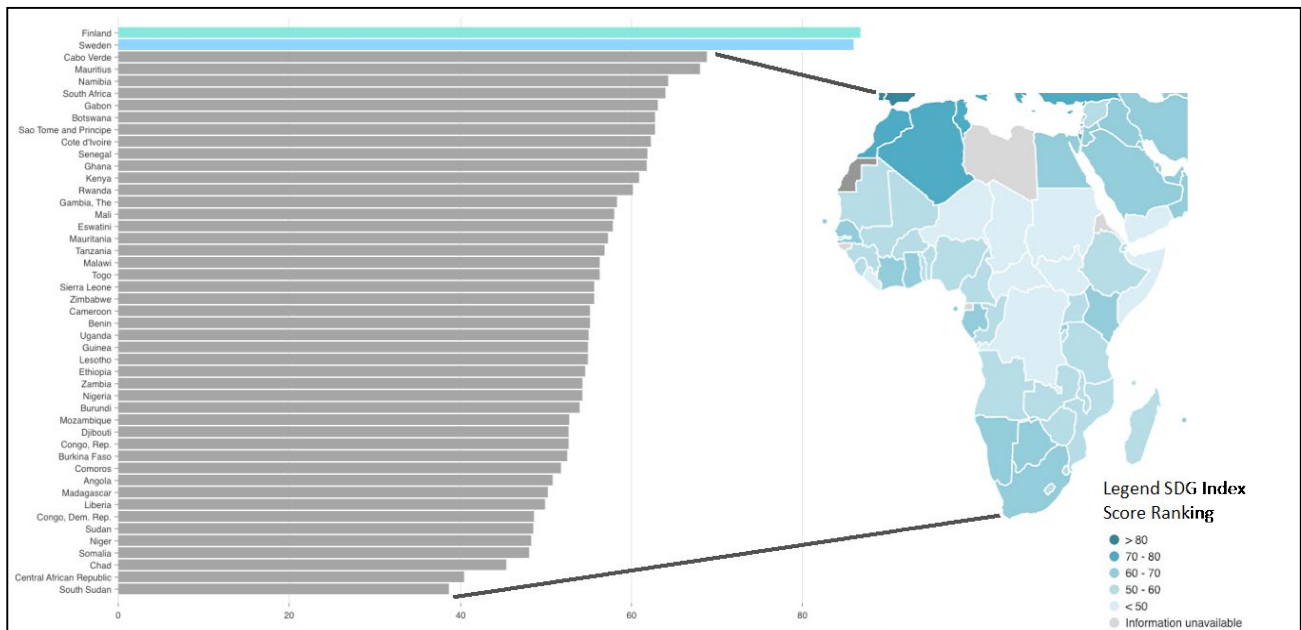


Figure 13.4 Overall index score for SSA on the achievements towards all SDGs. The closer a country is to an index score of 100 the closer it is to fully achieve all SDGs. Finland and Sweden were added as these countries reach the highest SDG index score in 2022. No data is available for Equatorial Guinea, Eritrea, Guinea-Bissau and Seychelles. Graph created from *Sustainable Development Report (2022)*.

Looking at the individual SDGs it shows a particular trend across SSA namely that most countries are making progress and are beginning to achieve SDG 12 (Responsible consumption and Production) and 13 (Climate Actions). That being said, SDG 12 and 13 are measured with very limited indicators. One indicator is measuring the generation of municipal solid waste (kg/capita/day), which is rather low in most SSA countries (United Nations Environment Programme, 2018) due to the limited buying

power but also the inconsistency of measuring waste generation if measured at all. However, waste collection rate and accessibility to waste management services are not included as indicators, but might be more applicable to the continent. Additionally, large data gaps exist for individual countries on specific indicators, which makes measuring

The annual sustainable development report presents the SDG index and information on a country level can be explored [online](#).

<sup>23</sup> There are 30 countries for which no SDG index scores could be calculated.



any trends near impossible. For most countries significant or major challenges still remain around the social SDGs<sup>24</sup>, such as eradication of poverty, zero hunger, gender equality, peace, justice and strong institutions.

### 13.4.3 State of Circularity in Africa

Chapter 21 elaborates on the current state of circularity in Africa. A brief summary is presented in this chapter. Firstly, circularity practices are deeply embedded in Africa (GRID-Arendal, 2021; Käsner & O'Carroll, 2020a), even though frequently not named as such. Secondly, Africa has an opportunity to transition to a CE from a lock-in perspective, because the continent requires major development, it can learn from the past mistakes of the GN and leapfrog some of the approaches, policies and innovations by making these applicable to each African context (GRID-Arendal, 2021; Rademaekers et al., 2020). Thirdly, policy and strategy development are underway that either link or are directly focused on transition to a CE nationally or in specific sectors (GRID-Arendal, 2021; Käsner & O'Carroll, 2020b). Despite that, the circular transition is underway; however, a lack of finance (Schroeder & Raes, 2021), silo thinking, different concepts and measurement tools, lack of government support and understanding of the concept beyond resource and waste management are a few of the barriers that are slowing down a systemic transition on the continent (GRID-Arendal, 2021).

### 13.4.4 The links between Sustainable Developments Goals and the Circular Economy

Schroeder et al. (2019) conducted a study that investigated the general links between the 169 SDG targets and the CE. The study has been summarised based on the SDGs (**Figure 13.5**) and not the individual targets, as targets that define the SDGs fell into different assessment categories that were applied. Strong links exist between a CE and in particular SDG 6 (Clean Water and Sanitation), SDG 7 (Affordable and Clean Energy), SDG 8 (Decent Work and Economic Growth), SDG 12 (Responsible Consumption and Production), and SDG 15 (Life on Land) (Schroeder et al., 2019). The CE will indirectly impact the achievement of SDG 1 (No Poverty) and SDG 2 (Zero Hunger) and SDG 14 (Life Below Water) (Schroeder et al., 2019). Accelerating the CE will be done by achieving SDG 4 (Quality Education), SDG 9 (Industry, Innovation and Infrastructure), SDG 10 (Reduced Inequalities), SDG 13 (Climate Action), SDG 16 (Peace, Justice and Strong Institutions), and SDG 17 (Partnerships for the Goals) (Schroeder et al., 2019). Weak to no links between the CE and SDGs were determined for SDG 3 (Good Health and Well-being), SDG 5 (Gender Equality), SDG 10 (Reduced inequalities), SDG 11 (Sustainable Cities and Communities), and SDG 16 (Peace, Justice and Strong Institutions) (Schroeder et al., 2019). For all SDGs except for SDG 9 (Industry, Innovation and Infrastructure) and 16 (Peace, Justice and Strong Institutions) cooperation opportunities exist based on included SDG targets that speak to partnerships that can enhance the CE transition (Schroeder et al., 2019).

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<sup>24</sup> SDGs 1 to 11 and 16 and 17 can be seen as SDGs that are linked to the social dimension.

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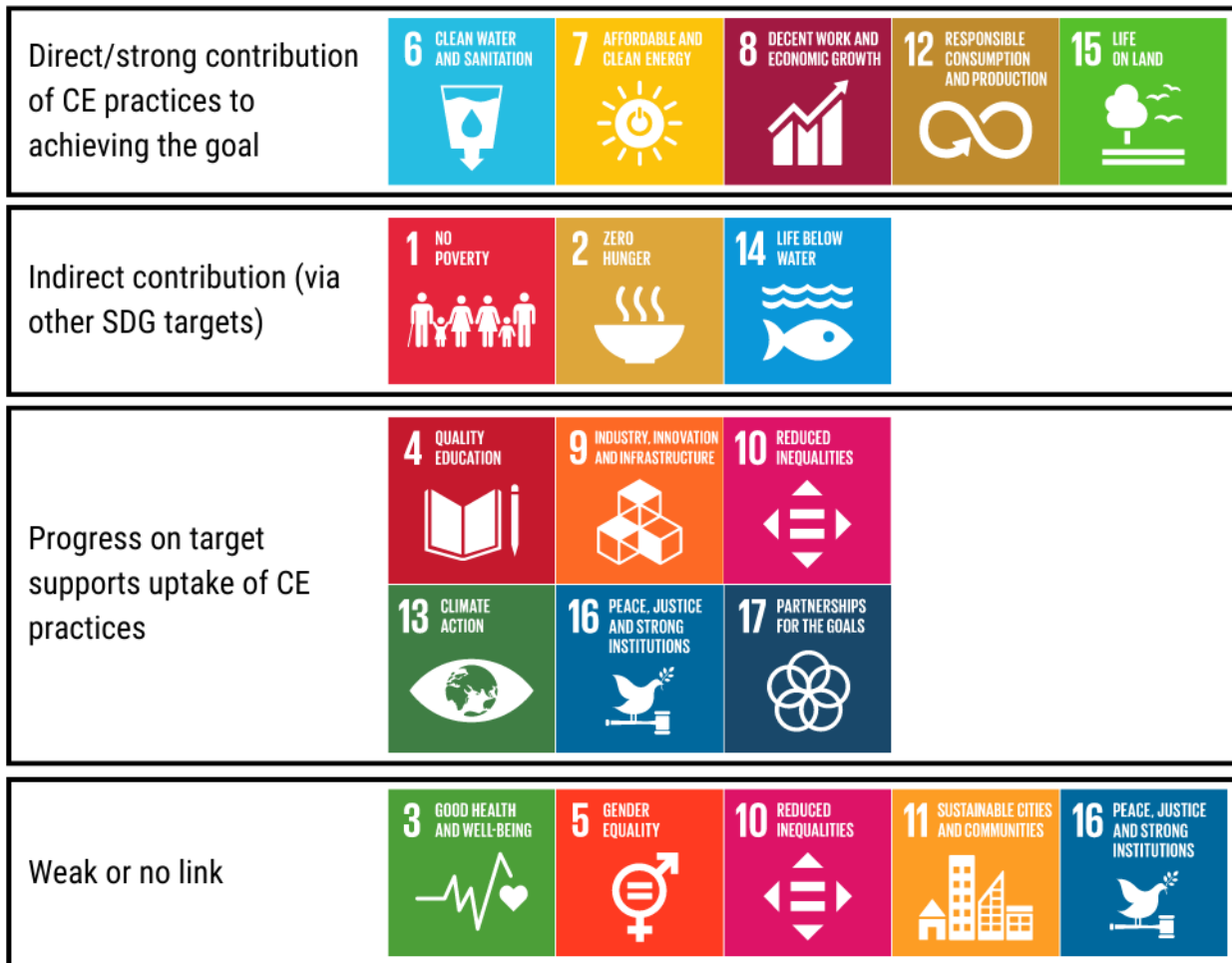


Figure 13.5 Linkage between the CE and SDGs. The figure illustrates only the main linkages of each assessment category, however SDGs can fall into multiple categories because of multiple targets each SDG is underpinned by. The assessment category cooperation opportunity to promote the CE was not included. The graph is based on the findings of Schroeder et al. (2019).

The definition of the CE plays a major role on how we understand its contribution to achieving the SDGs. In Schroeder et al. (2019) the CE definition<sup>25</sup> was taken from the European Environment Agency and was only resource focused. However, definitions that are more inclusive of sustainable development as an aim of the CE have become more frequent (Kirchherr et al., 2023). It would be counter-productive to assume that there will be one single definition of the CE because any definition should fit and evolve with the context, but simultaneously one needs to be aware of circular washing, the new green washing. For us, a just CE is regenerative at its core and 'in the African context is envisioned as systemic, inclusive and operative at multiple scales' (GRID-Arendal, 2021, pg. 9). Hence a just transition to a CE is required which is the process 'of shifting to a sustainable and equitable economic system where the needs and rights of all stakeholders are considered' (Purvis et al., 2023, pg. 2). This is also more in alignment with the African concept of Ubuntu ('I am because we are'), which focuses on relationships between

<sup>25</sup> "The concept can, in principle, be applied to all kinds of natural resources, including biotic and abiotic materials, water and land. Eco-design, repair, reuse, refurbishment, remanufacture, product sharing, waste prevention and waste recycling are all important in a circular economy."(European Environment Agency, 2016)

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people and the relationship with nature (van Norren, 2020). Having looked at a CE definition that is more inclusive of sustainable development we have reviewed the five SDGs that either had a weak or no link according to Schroeder et al. (2019), but are absolutely crucial to the well-being of the African continent. It has to be noted though that the research was based on a literature review up to 2017 (Schroeder et al., 2019). For this chapter we cannot drill down into each target that was considered as having a weak or no link, instead this is merely meant to contribute to an ongoing discussion. Specific targets that make up each SDG have been put in brackets in below text.

### SDG 3 Ensure healthy lives and promote well-being for all at all ages

SDG 3 consists of nine targets and four targets on the means of implementation<sup>26</sup> (MOI). In our view this can be linked to a just CE that needs to make access to timely, effective and human-centered medical care available to decrease global mortality rates (3.1), end preventable mortality rates under five years (3.2), while preventing communicable and non-communicable diseases (3.3 & 3.4). Even though current literature is focusing on the resources side of healthcare, more circular practices e.g., healthcare technology as a service, sharing healthcare technology between healthcare facilities, digitalisation of healthcare technology, creation of refurbishment networks etc, should make healthcare in general more accessible (3.8) (Gihring & Janse van Rensburg, 2020; World Health Organization, 2018). A healthy lifestyle which includes access to drinkable water, nutritious food and enough physical exercise can support the prevention of non-communicable diseases; however, 418 million people still do not have access to drinking water (UNICEF, 2022a), while in SSA approximately 39% of households have no reliable access to food and diversity of diet is only available to 51% of the population (Fraval et al., 2019). Creating circular food systems should also support small-scale farmers in production and processing and accessing markets as well as creating circular water systems and building infrastructure that is regenerative and taking citizens needs into account, which in turn should also support SDG 3.

African indigenous knowledge systems have been disregarded when it comes to healthcare systems which are largely westernised in SSA. Additionally, accessibility to trustworthy, affordable and caring sexual and reproductive health care (3.7) is absolutely crucial on a continent where women in the age group 15-19 still have the highest birth rate, highest mortality rate (525 deaths out of 100,000 births) and the need for family planning is not satisfied (UNICEF, 2022b; World Health Organization, n.d.). Accessibility would support the transition to a just CE, where women can equally participate in socio-economic activities. Building and developing a circular manufacturing sector that supports research and innovation (3.b), while producing medical health care technology and essential vaccines would also make the continent more resilient and less dependent on the GN as it was the case during Covid-19. A circular development approach would see all the above-mentioned sectors e.g., food, water and knowledge in an interconnected way that can positively contribute to SDG 3, where resources (e.g., healthcare staff and equipment) are efficiently managed and disease prevention is achieved by making basic human needs such as clean water and nutritious food accessible.

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<sup>26</sup> Means of implementation have been formulated for nearly all of the 17 SDGs and refer to means such as finance, trade, capacity building and/or science, technology and innovation to enable the realisation of the SDGs (United Nations Economic and Social Commission for Asia and the Pacific, n.d.).

## SDG 5 Achieve gender equality and empower all women and girls

SDG 5 consists of five targets and three targets on the MOI. The topic of gender<sup>27</sup> equality and the CE has been addressed in Chapter 12. So far gender equality has not been well addressed within the CE debate. It is important to note that gender equality per se will not create the required transformation, because it would include more women in the formal economy but does not address the factors that lead to devaluation of the work women mainly carry out on an unpaid basis such as reproductive, care and household work (Martínez Álvarez & Barca, 2023). SDG5 targets are strongly applicable to the African context e.g., end all forms of gender-based violence (5.2), recognise unpaid (reproductive) work (5.4) etc, however these have to go further into how value of unpaid work is being perceived and recognised in a society. Thus, values and social norms are based on and have been carried through from the linear into the current CE discussion and need to be transformed, to include 'circular work in all of its forms' (Martínez Álvarez & Barca, 2023, pg. 19; see also chapter 18 in this volume). This means the 'CE must aim at closing the loop between productive (i.e. valued) and reproductive (i.e. devalued) work' (Martínez Álvarez & Barca, 2023, pg. 19).

## SDG 10 Reduce inequality within and among countries

Seven targets and three targets on MOI make up SDG 10. Reducing inequalities has been discussed under SDG 5 concerning undervalued work mainly conducted by the women. However, this can be broadened by including other groups that are discriminated against such as migrants (10.3). It comes down to reframing what we consider as value and within the CE paradigm, our norms and what we define as value should be questioned.

Further, the SDG calls for financial soundness indicators (FSI)<sup>28</sup> (10.5), to better regulate and monitor the global financial markets and for 'monitoring financial risks and vulnerabilities of national financial systems' (San Jose et al., n.d.). For the CE a lack of financing has been identified as a key barrier for African entrepreneurs (Chatham House et al., n.d.; Gonçalves et al., 2022; Milenge et al., 2022). Hence, different financial tools need to be developed and made available which would also require indicators. FSI would also need to be adapted to actually reframe the perceived risks of financing CE businesses in all of the different development stages and the investment the public and private sectors are contributing towards scaling the CE transition. The risk of not transitioning might be much higher than any risk measured by the FSI due to fast approaching critical resource constraints, decrease in ecosystem services which will and already is impacting human well-being. In line with reducing inequalities between countries, especially between the power imbalance between the GN and South, it is important that international trade agreements are being developed in equal collaboration with emerging countries (10.6).

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<sup>27</sup> 'Gender refers to sociocultural norms, identities and relations that shape behaviours, products, technologies, environments, and knowledges. Gender attitudes and behaviours are complex, changing across time, with education, age and socioeconomic status, and are specific to cultures, religions, ethnicities, and infrastructures' (European Commission Directorate-General for Research and Innovation, 2020).

<sup>28</sup> 'Financial soundness indicators are indicators compiled to monitor the health and soundness of financial institutions and markets, and of their corporate and household counterparts' (Sundararajan et al., 2002).

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These agreements need to carefully navigate potential environmental and social burden shifting of a CE transition to avoid repeating the mistakes of the linear economy, which leads to environmental injustice (Meira et al., 2022, see also chapter 17 of this volume). It is crucial to consider distributional (who pays the cost of a CE transition), procedural and recognition justice (equal representation and weight of marginalised groups) in a transition to a CE (Meira et al., 2022). The African Continental Free Trade Agreement (AfCFTA) has not included the circular economy as an overarching framework. More on policies and legislation can be found in Chapter 21.

### SDG 11 Make cities and human settlements inclusive, safe, resilient and sustainable

SDG 11 consists of seven targets and three targets on MOI. It can be safely argued that the CE can support the reduction of the number of deaths through disasters including water-related disasters (11.5), increase access to public spaces that are safe, green and inclusive (11.7), and usage of local materials to develop the built environment (11.c). Circular cities would create adaptive and innovative ecosystems that make use of local construction materials, and build green buildings, while utilising spaces in a city not only productively but also for biodiversity to thrive while in-cooperating human well-being aspects by making use of green corridors, food reuse schemes, repair cafés, community space etc (Williams, 2021) to foster cohesive and healthy communities. This can be well showcased by the work ICLEI - Local Governments for Sustainability is currently undertaking in 15 African cities where for example the City of Cape Town aims to build a prosperous, inclusive and healthy city for all of its citizens, while also addressing urban heat, water scarcity, and flood risks (ICLEI Africa, n.d.).

### SDG 16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Ten targets and two targets on MOI contribute to SDG 16. A CE might not enable access to a justice system however access to a justice system would accelerate the just CE transition. A functioning and well governed justice system is crucial to develop and ratify national and international policies, which are also needed for the CE. A just CE would through technology such as blockchain enable every person having access to their birth certificate (16.9) thereby fulfilling a fundamental human right<sup>29</sup>, which allows an individual to access proof of identity, government schemes, education, healthcare, open bank accounts and vote (Bhatia et al., 2017).

Achieving a just CE will also be supported by achieving target 16.5 (Substantially reduce corruption and bribery in all their forms) to 16.7 (Develop effective, accountable and transparent institutions at all levels) (Schroeder et al., 2019) which need particular mentioning in the African context. To enable a just CE it is paramount that transparency is not only created around resource value chains which should include transparency around labour conditions but also that governments are being kept accountable for investing and govern to the best interest of

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<sup>29</sup> It is estimated that a quarter of born children or 1 in 4 children under the age of 5 are not legally registered and are thus 'invisible' to the government (UNICEF, 2023).

their communities and the global community at large. Especially target 16.5 and 16.6 need to be improved in Africa. SSA has the lowest regional corruption perceptions index (32/100 CPI) (Transparency International, 2023). Thus, corruption is one of the major barriers to create strong institutions and good governance, where a people-empowering leadership style and citizen participation are required, as is also reflected in Ubuntu (van Norren, 2020).

### 13.5 Discussion and conclusions

This chapter has examined existing scientific literature on the connection between the SDGs and the CE with a particular focus on Africa. From the bibliometric analysis it becomes apparent that the continent has conducted much less research regarding the topic, however the increasing number of publications demonstrate that the topic of CE and SDGs is becoming increasingly relevant, at least within the academic domain. A systematic literature review of the identified publications and adding grey literature would be recommended as the CE, like sustainability, has also attracted a lot of publications due to it being trendy and a current buzzword, leading to research that is rather recycling knowledge than contributing to new knowledge (Kirchherr, 2023). In any analysis the applied CE definition determines how much the CE can support the achievement of the SDGs, especially those with a social element. As previous applied definitions were rather resource focused, it is easy to argue that the CE cannot contribute to the achievement of all SDGs.

We argue that the CE can be used as an overarching framework to achieve the SDGs and add increased momentum to sustainable development in Africa. Throughout the chapter SDGs that were previously classified as having a weak or no link to the CE were discussed. It became apparent that the CE can in its original form of being regenerative, support also specific targets of SDGs 3, 5, 10, 11 and 16.

In the African context, the targets that make up the SDGs should be critically questioned as well as the GN focused CE definitions. It is clear that the African continent needs to raise its voice and critically assess concepts that seem novel. The CE has been practiced for decades on the continent and is by no means novel, but well ingrained in communities. A danger is that the necessary development of the continent follows the unsustainable example provided by the GN, instead of learning from the mistakes made by these countries. It is clear that development pathways as well as assessments of CE programmes and initiatives need to be specific to the continent and local agencies should not entirely follow in the footsteps of the Northern hemisphere (Melber, 2022). Even though we would recommend further research into the topic, the question that needs to be posed is how much of the scientific knowledge is being translated into actual implementation on the ground to the better well-being of Africans?



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