
Reflection of Linear to Circular Economy: Relevance of Business Leadership and Economic Sustainability in Tanzania

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Abstract

As a new paradigm shift for economic development, the circular economy, has significant environmental, economic and social benefits. The aim of this paper is to reflect on a shift from linear to circular economy through literature review. Analysis of the circular economy concept reveals that it is a notion of replacing the linear economy in current production and consumption practices by reducing, reusing, and recycling products and materials in production, distribution and consumption processes. Promoting circularity aims to accomplish sustainable development, and the circular economy has links to many of the 17 Sustainable Development Goals (SDGs), particularly Goal 12 “Sustainable Production and Consumption”. As Tanzania is moving towards industrialization, it is relevant that strong business leadership is required in the adoption of circular economy for economic sustainability and growth. There are challenges but also opportunities in the process of adopting circular economy. It is recommended that business leaders and policy makers should take charge of the situation of change.

Keywords: Circular Economy, Sustainability, Business Leadership, Tanzania.

JSSBT, Vol. 2 No. 1 (June, 2021), pp. 53 – 65, © 2021 The Co-operative University of Kenya

INTRODUCTION

A Circular Economy (CE) is an approach that transforms the function of resources in the economy. Waste from factories becomes a valuable input to another process and products are repaired, reused or upgraded instead of thrown away (Beunen, & Patterson, 2019). Circular Economy can be defined as a regenerative system in which resource input and waste, emission, and energy leakage are minimized by slowing, closing, and narrowing material and energy loops. This can be achieved through long-lasting design, maintenance, and repair, reuse, remanufacturing, refurbishing, and recycling. Otherwise the meaning of circular economy may be changed to the different sectors. It can be good for some, but on the other side for some it might mean having to battle for survival (Preston, 2012).

Circular economy, thus, concentrates on the notion of reuse, reduce, and recycle of the resources and adopting innovating measures to minimize the wastage rather than simply dumping the resources used, thereby ensuring sustainability with profitability (Geng and Yu, 2013). To make it a success, innovative business models are required so as to eradicate the loopholes of the existing economic system, and move forward with the mechanisms to shape and redesign the waste and pollutants, production systems and preserving the natural environment. This type of economy necessitates the detachment of the economy from the use of limited resources and couple up with the usage of renewable resources so as to design out waste from the system. It is fostered by the use of these non- conventional sources thereby

building and nurturing social, economic environment altogether (EMF, 2013a).

The term Circular Economy was introduced by Pearce and Turner (1989), although the concept has its hold since the 1960s. The term is referred to as “a guiding principle for development that encompasses three aims which must be accomplished simultaneously: Environmental quality, economic prosperity and social equity” (Taylor, 2016; Fulton, 2012; Elkington, 1997; WCED, 1987). The concept of the Circular Economy has become popular since the late 1970s (EMF, 2013b). Several authors, like Andersen (2007), Ghisellini, Cialani and Ulgiati (2016), and Su, Heshmati, Geng and Yu (2013) helped to develop the concept of circular economy to Pearce and Turner (1989). With the description of how natural resources influence the economy by providing inputs for production and consumption as well as serving as a sink for outputs in the form of waste, they investigated the linear and open-ended characteristics of contemporary economic systems (Martin, Paulo, Bocken & Hultink, 2016). Circular economy involves remodeling industrial systems along lines of ecosystems, recognizing the efficiency of resource cycling in the natural environment.

THEORETICAL UNDERPINNING

Increasing complexities in functions of business have led to the emergence of new and comprehensive concepts in business management. Performance management is a concept in the field of human resource management which refers to a continuous process of identifying, measuring and developing the performance of individuals and aligning performance with the strategic goals of the organization (Aguinis, 2009). Performance management is many times mistaken as performance appraisal but the latter is just a part of the former. Conceptualizing performance in terms of organizational performance or countrywide productivity in sectors of the economy requires leadership motives, seeing

opportunities and moving to the right direction.

There is no single universally accepted model of performance management. Various experts have explained the concept in their own ways. Mabey *et al.*, (1999) has prescribed the model in the form of ‘performance management cycle’. This cycle has 5 elements which suggest how performance management system should be implemented in an organization. The elements of performance management system cycle includes: setting of objectives, measuring the performance, feedback of performance results, reward system based on performance outcomes and amendments to objectives and activities as indicated in Figure 1.

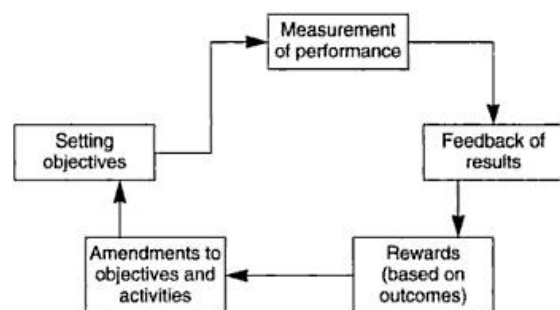


Figure 1: Model of performance management (Mabey *et al.*, 1999)

The performance management circle by Mabey *et al.*, (1999) reminds managers and leaders that productivity (performance) should be taken as a dynamic process. While moving through the circle, one should be able to see that objectives and activities need to be amended so that setting of objectives that are relevant at a particular moment in time is achieved. Looking at the circular economy paradigm, leaders need to take front seats to see that, measurement of performance, feedback of results, rewards based on outcomes, amendment to objectives and activities and hence setting current objectives is attained objectively.

Furthermore, Salaman (2005) says that, there are two theories underlying the concept of performance management, the Goal setting theory and Expectancy theory. Goal setting

theory had been proposed by Edwin Locke in the year 1968. This theory suggests that the individual goals established by an employee play an important role in motivating him for superior performance. This is because the employees keep following their goals. If these goals are not achieved, they either improve their performance or modify the goals and make them more realistic. In case the performance improves it will result in achievement of the performance management system aims (Salaman *et al*, 2005). This part of the theory is even more important as a connection to leadership in the circular economy. System aims in this case includes change in how things should be done in terms of wastes minimization and productivity improvement a few to mention.

On the other hand, the Expectancy theory had been proposed by Victor Vroom in 1964. This theory is based on the hypothesis that individuals adjust their behavior in the organization on the basis of anticipated satisfaction of valued goals set by them. The individuals modify their behavior in such a way which is most likely to lead them to attain these goals. This theory underlies the concept of performance management as it is believed that performance is influenced by the expectations concerning future events (Salaman *et al*, 2005). Two important things are worthy taking note in the Expectancy theory. First is an individual modification of behaviors leading them to attain goals and second is the belief that performance is influenced by the expectations concerning the future. In this study, we see behavioral modification as a function of the environment in which a person works including leadership styles, supportive policies and adaptation of new technologies. While the influence of expectations concerning the future is also a function of many things including the paradigm shift of demand for goods and services; and state of the art in the production processes anchored to economic and re-use of resources. This is where we see that the theory supports the circular economy and leadership approaches to productivity.

The Current World Status: The world population is standing at around 7.5 billion as of April 2019, according to recent statistics, out of which, India alone is contributing approximately 17.9% in the total population. The population of Africa is around 1.3 billion people. The continent of Africa is synonymous with varied cultures, peoples, beliefs and an abundance of natural resources. The majority of the African population is young, with over 50% of the population below or at 20 years of age. The population density of Africa is 30.51 people per square kilometer. Africa is made up of 54 countries. Nigeria is the most populous country in Africa with a population of 195 million people followed by Ethiopia and Egypt with a total population of 109.2 and 98.4 million people respectively (WB, 2019). Tanzania takes sixth position with an approximate population of 56.3 million people (WB, 2019).

Together, the world has reached at an alarming situation where the bearing capacity of the planet has jeopardized to the extent that if immediate panacea is not looked out, the reverberations will be unendurable. The rate of consumption is far beyond the regenerating capacity of the planet. The continuous increase in the physiological needs of the humans has put the business organizations under immense pressure to provide them with their necessities at the right time and right place. The notion of take-make-consume-waste, as followed by the majority of people, is one of the main reasons behind the destructive use of the limited resources. The Millennium Ecosystem Assessment 2005, as given by the Ellen MacArthur Foundation (2013), says that fifteen out of the recognized twenty-four ecosystem services (i.e. processes of nature that support human wellbeing) are used in an unsustainable manner and are being depleted. Thus, continuous measures at global, institutional and individual level have to be taken up for the sustainability so as to ensure that there are no pernicious consequences in near future. This realization has led to the

emergence of the concepts like circular economy, sustainable development, resource planning and management, triple bottom line, reuse-reduce-recycle and many more, keeping aside the old school of thought, like linear economy. Where linear economy works on the simple principle of gratification of needs, circular economy takes into consideration the environmental sustainability as well.

Much as how good it sounds though, meeting the requirements of a true, circular economy isn't always easy (Ellen MacArthur Foundation, 2013). Even the best-intentioned companies and countries run into obstacles when attempting to meet the requirements of the circular economy. For example, organizations and even some countries cannot always access and reprocess end-of-life products. As a result, exportation or importation of end-of-life materials has been in effect around the world.

Even further to this challenge, ownership of end-of-life materials to most supply chain organizations lose control of products and raw materials at their respective point of sale. This means they must regain access from the consumer at the end of a product's life (WB, 2019). High-tech organizations favor leasing and subscription models because the product will automatically return to them. This call for organizations to must engage with customers in new ways to gain access to end-of-life materials. Many supply chains rely on new business models or incentives, however 35% rely on customer goodwill (Watt, 2020).

Moreover, quantity of materials has been noticed to be one of the key challenges to collect and centralize end-of-life products for processing in an economical fashion. Most supply chain organizations collaborate with waste vendors, raw material suppliers and reverse logistics providers to gain access to material (Su *et al*, 2013). The challenges are even intensified by the value of raw materials (*ibid*). A circular economy still needs to operate within economic boundaries. Products with low residual value are less likely to be processed. While there may be

differences in environmental impacts between materials, most of the organization's decision-making will be based on economics and risk. There are a couple of reasons why it can be worthwhile to reclaim end-of-life materials with low residual value (Watt, 2020). Reclaiming those assets can act as a hedge against price volatility and increase an organization's raw material security. Customer sentiment towards certain forms of materials such as single-use plastics has also changed, presenting a reputational risk, which has been a catalyst for action.

Moreover, product complexity has been an area of particular interest for electronics buyers: the less complex a product, the easier and cheaper the reprocessing (Gartner, 2017). One of the easier methods to overcome complexity is by recycling to reclaim primary materials. Gartner says, but recycling leads to loss of value, as the manufactured product is being extinguished in the process. Only 24% of survey respondents in Malaysia stated that, their organization is involved in refurbishment activities. Refurbishment provides more value than recycling as it typically reduces environmental impact and allows the organization to achieve a quick second sale. Gartner (2017) concludes that, product design is crucial to end-of-life management. Poorly designed products with toxic materials can be incredibly difficult and costly to process and put back into the market.

The aim of this paper is to make a reflection of the circular economy from the linear economy. The study adapts a literature review or desk research to connect concepts and narrating how leadership impact upon circular economy. The key issue is how nations especially the developing ones like Tanzania will be able to economically grow and sustain their levels of economic development. To start with, a focus on sustainability is presented which is again a very popular and important expression of the current state of the art economic style. Then sustainability will be related with the economy and will move forward to linear and

circular economy. Finally, the paper will discuss how leadership can be helpful in establishing circular economy in Tanzania.

Sustainability: The word sustainability is derived from the Latin *sustinere* (*tenere*, to hold; *sus*, up). Various dictionaries postulate various different meanings for *sustain*, the main ones being to "maintain", "support", or "endure" (Hunter, 1997). Sustainability serves as a preservative material which preserves the pleasant and delicious recipe of economic jam all around economic enterprises in its profitable state for both producer as well as consumers (Palmer, 1992). Containers play an important role in keeping them quite in act and fresh fit to consume to fixing any date of expiry on the product. So it can be said that ethics and sustainability can be seldom the two sides of current coin.

Corporate sustainability is a business approach that creates long-term consumer and employee value by not only creating a "green" strategy aimed towards the natural environment, but taking into thought every dimension of the surrounding of business as how a business operates in the social, cultural, and economic environment (Preston, 2012; Cheng and Yu, 2013). Corporate sustainability also expresses approaches to build a company that cultivates permanence through transparency, decent works and proper employee development (ILO, 2019). On the term 'sustainable development' was coined by the 1987 report 'Our Common Future' by the World Commission of Environment and Development (WCED) (Redclift, 1989; Palmer, 1992). The growing concern for environment, resources and social equity in the 1980s led to the emergence of the concept of sustainable development (Hunter, 1997; Mowforth & Munt, 2009), which was defined as 'development that meets the needs of the present without comprising the ability of future generations to meet their own needs' (WCED, 1987) by the 'Brundtland Report'.

Sustainable development is a constant horizontal graph line of output that must be

maintained at all cost (Fulton, 2012). The concept of sustainability had been in all the field of human activities since time (WCED, 1987; Redclif, 1989; Palmer, 1992). Immemorial in the field of health, wealth, name, fame, sovereignty, command, kingdom, sports and lastly in spiritual achievement as well. The champions in these fields tried their level best to standard and their level forever. Its common when the aims and targets are high, simply achieving is not enough. Achievement is only the starting for output for which so much labor, planning has been put in the crop is ready for harvesting. The desired fruit is here, but in the field of economy it must be kept constant. Since the acceleration of communication technology, the thinkers and the scholars of economic development are constantly searching and researching the ways, means methods through collecting data, graph by visiting personally so that they might be able to evolve such methods techniques to maintain the most valuable achievement in entering the hundred percent efficiency zone of quality and quantity of the economic activity. The effort or consciousness to maintain the level of efficiency has been named as stability in social development (ILO, 2019). It can also be called sustainability (Lordkipanidze, 2019; ILO, 2019).

Since 1980's sustainability has been used more in the sense of human sustainability on the globe and this sense has been used in most widely quoted definition of sustainable and sustainable development (UN, 2015). At 2005 world summit it was observed that at the 2005 World Summit on Social Development it was noted that this requires the reconciliation of environmental, social equity and economic demands - the "three pillars" of sustainability ,and business comes under these three spheres of life that is how it is also connect with sustainability. Sustainability is basically the capacity to endure (Taylor, 2016). For human being, sustainability is the long-term maintenance of responsibilities in the fields of all economic activities. This also covers the environmental, economic and

social dimension and covers larger area of leadership or stewardship, the responsible management of resources available for economic purposes (Taylor, 2016).

In layman terms, sustainability refers to the generic development, but not at the cost of others. Others could be any living or non-living constituent of the planet. With the devastating state of the environment, either because of the overutilization or wastage of resources, the term sustainability came into existence, but it is no less than just a buzzword (WCED, 1987). Business organizations, general public, universal platforms are endlessly working on adoption of the measures for sustainable development but the term is not well elaborated and understood by many. Some understand Sustainability as reduction in the over exploitation of limited resources for the sake of future generations, whereas some take it as reducing and eliminating the over pollutants. According to Harwood (1990), sustainability is a system that can evolve indefinitely toward greater human utility, greater efficiency of resource use, and a balance with the environment which is favorable to humans and most other species. Pearce, Makandia and Barbier (1989) advocates that, sustainability involves devising the economic and social system, which ensures that these goals are sustained, i.e., that real income rise, that educational standards increase, that the health of the nation improves, that the general quality of life is advanced. The United Nations Brundtland Commission (1987), defined sustainability as meeting the needs of the present without compromising the ability of future generations to meet their own needs. Sustainability Development Goals (SDGs) have been adopted by the UN in the year 2015 so as to eradicate the evils of destruction like poverty, degradation of planet, inequality, lack of educational facilities and many more to make this world a peaceful and prosperous place by the year 2030 (UN, 2015).

Leadership: Leadership refers to the process of influencing others towards a common goal as directed by the leader (Ferry,

2018). It can be defined as a social, interactional process of uplifting and empowering others for those evolutionary changes that are more advisable. Peter F. Drucker (1996) explains leadership as “the only definition of a leader is someone who has followers.” Warren Bennis (2005) states “leadership is the capacity to translate vision into reality.” Leadership is a function of knowing yourself, having a vision that is well communicated, building trust among colleagues, and taking effective action to realize your own leadership potential”. According to Rauch and Behling (1984), “it is defined as the process of influencing the activities of an organized group towards goal achievement.” Hemphill and Coons (1957) explains leadership as “the behavior of an individual when he is directing the activities of a group towards a shared goal.”

According to Ferry (2018), leading goes beyond to an art of directing people to act in a way that common objectives are achieved because any effective leader work beyond the common or targeted objectives. That is why there are successful and great organizations; there are developed and developing countries. The only differences is on social capital which does not only produce leaders but also inventors and social capital which affect leaders on how they act toward the objectives and how they make people define themselves beyond what known to be targeted. When it is reflected in business organizations, it can be understood as directing the employees towards the accomplishment of the organizational goals along with the individual objectives. It is an inspirational act to motivate and direct others to behave and perform in a certain pre-decided manner (Ferry, 2018). Leadership cannot be confined to something that comes with position; it can be present at different levels of management. Many presume leadership to be the trait of top management of an organization, which is creating an illusion for the ones who have this as inherited trait but are not at any specified position. However, Leadership start by

individual having the ability to lead and manage individually then should manifest to the people or the followers. Self-control, self-leading and management, self-consciousness above all being altruistic (pursuing the motive all which benefit the majority than of personal interest).

Despite of the successful testimonies on the collaborative and values based leadership approach, but still raise an alarm on the application in the currently fast changing environment. The key indicator of collaborative approach is the ability of the leader to understand the nature and basic virtue of the followers (Riggio *et al*, 2014). The challenge is not only in application but also on how to balance between interpersonal skills (soft skills) which involve inspiring, motivating, persuading, creating good working and investing environment, communications and networking. On the other hand, hard skills involve planning, analyzing, making decisions, strategizing (Riggio *et al* 2014). For circular economy to be successful, it needs leaders who have the capacity to balance these two categories of leadership skills. Failing to balance will lead the organizations having good organization strategy, policies and planning but at the end having poor implementation and sustainability of results. Therefore effective application of collaborative approach will rely on the ability of the leader to be activated in almost equal level between the hard skills and interpersonal (soft) skills.

Linear Economy: Linear Economy works on the traditional outlay of take-make-use-throw, where the resources are first extracted from the system; they are then molded so as to sell them to the prospective buyers, and thus the liability of using and disposing ultimately lies with the buyer (Taylor, 2016). Companies make profits by fulfilling the demands of the prospective consumers and completely ignore the ill effects that follow like over exploitation of the scarce resources, wastage, over consumption and many more (Cheng and Yu, 2013). Henceforth, in this economic system

perspective, value creation depends on the large-scale manufacturing and selling. In the process of human need satisfaction and value creation, many million tons of energy and resources are wasted either as being an outcome of production process or after the ultimate consumption by the end users, leading to deterioration of the planet and environment as a whole. Manufacturing and consumption will be leading towards non-transformable waste. The global economy is deeply embedded in this vicious circle. Linear Economy now seems to be a noxious cocktail of damaging consequences, leading to social injustice, inequalities, depletion and extinction of our natural resources and worsening the situation by risking and effecting climate and environment, which is an utmost necessity for human survival (Lahti *et al*, 2018).

According to the Ellen MacArthur Foundation (2013), “the currently prevailing economic design has its roots in the historically uneven distribution of wealth by geographic region.” This unevenness is the mother of most of the problems prevailing. Some has it in abundance and thus take undue advantage of this natural favor and some are completely deprived off it and thus their thrust to acquire it may lead to severe repercussions.

FINDINGS AND DISCUSSION

Relevance of circular economy: With the continuous degradation in the quality of life because of the unsustainable factors, it is a prerequisite to adopt a different approach so as to jump out of the vicious circle of the traditional theory of make-use-dispose (Andersen *et al*, 2018). The new approach will create awareness and keep the utility of resources high which in turn will lead to sustainability, through innovative leadership style and efficient management. The inner loops of re-use reduce and recycle complements the whole phenomenon of circular economy. Some of the major precedence that it provides constitutes of regeneration of the system, elongating the life span of goods and services, optimizing the

production and supply chains, technological advancements, resource efficiency along with societal welfare, delivery system shift to virtual platforms, positive impact on the economic growth, natural environment protection and conservation, expansion and growth opportunities for the corporate and business houses and elevating the standards of living for the individuals to mention a few. It is utmost clear that circular Economy is relatively new in its conceptualization and implementation; there may also be further add-ons and limitations inherent in its appropriation and application as found out by Berg *et al* (2018).

Relevance of leadership in circular economy: The roles and responsibilities of the leaders and the top-level managements of organizations in creating a space for circular economy and sustainability in their already existing cycles is very crucial. Henceforth, this related concept of sustainability and circular economy is of great deal for creating an ethical culture for the overall development. Major system changes in the organizations are not easy to implement as employees refrain themselves from accepting them either because of the fear of employment loss, or the inability to adjust in the new working culture. Shifting towards the circular economy often faces such barriers, even though it is an altogether developing approach, because of the narrow mindedness of the stakeholders as also found China by Cheng and Yu (2013). Hence, it is of utmost importance that the leaders take up the front seat and handle the state of affairs. Business leaders have the responsibility to foster collaboration and direct the organization towards a sustainable approach and configure new agendas and policies for the same as testified by Taylor (2016).

With the changing requirements of the humans and the already depleted resource of Tanzania as a country, it is quite evident that the country is compelled to shift towards the circular economy. The ongoing situations be it overgrazing in Dodoma, Shinyanga and Simiyu (Mayala *et al*, 2019); uneven climatic

conditions across the country or overproduction and exploitation of the resources and wastage, are an alarming situation that we need to alter our practices and move towards a sustainable approach. It is not only impacting the economy but the environment at large and our move to industrial economy.

Business Leaders need to adopt a collaborative approach to manifest this circular goal. It is a prerequisite to create such a corporate working environment, at a global level, that regardless of the place of origin or country, the main objective is clinched. This can only be embraced with the presence of good leaders who have the required skills to direct this journey towards a success. As a leader, they have to understand the changing requirements of the people, needs and requirements of the stakeholders as well as the concern towards the environment and society. Policy-makers should focus on accelerating transition to a CE in a timescale consistent with the response to climate change, water scarcity and other global challenges. Smart regulation can reward private-sector leadership and align incentives along the supply chain for example, to deliver a step-change in remanufacturing rates (Preston, 2012).

Collaborative leadership involves the employees as well, understanding their part of contribution to the whole process as well as working in group culture, catering to the requirements of a larger geographical distribution at once (Bergek *et al*, 2015). In this form of leadership, the leaders do not adopt authoritative but participatory leadership style so as to keep the whole system in touch. This often leads to providing a sense of empowerment to the stakeholders, so as to inculcate them completely in the process, networking and inter-connectivity of the stakeholders across the country, participation leading to closer look at what the work groups are leading to, immediate resolution to conflicts and resistance among people in different sectors of the economy. Industry bodies can play a key role in

facilitating dialogue between leaders on a CE and other companies that stand to gain from making the transition (Preston, 2012).

Value based leadership can also give the positive outcomes as it involves the amalgamation of the personal beliefs of the stakeholders along with the organizational values and thereby striking a balance between the two so as to sustain any change. This change can only be catalyzed at such a large scale if the multiple players of research field and business communities, across the country ranging from agricultural research to manufacturing as the country is moving towards industrialization, come together and identify the gaps and devise the strategy for the obstacles undisputedly. In addition to the collaborative style, many other different styles of leadership can be practiced by the business leaders as per the need and environment and production specific.

Developed countries that have adopted CE earlier like France has also seen leadership initiatives from the NGO sector with organizations like l'institut economie circulaire campaigning and organizing events and initiatives. French companies like SNCF, Orange France, Capenergies and La Poste have partnered with a French Business School in a Research Chair researching the circular economy. In the Netherlands a similar impetus is being developed with the NGO 'Circle Economy' working to the same ends in partnership with public and private enterprises. There are similar initiatives are developing in many other European countries also, as interest grows (Murray, Skene & Haynes, 2017; Carrez, D., and Van Leeuwen, 2015; Abreu & Ceglia, 2018).

The circular economy offers a transformational agenda that aims to redesign global production and consumption systems. Many of the ideas are decades old, but a combination of environmental and resource price pressures, technological advancements and changes in consumer demand is finally building momentum. Both the private sector and governments increasingly recognize that

future competitiveness will depend on leadership in resource related innovation.

Opportunities and Challenges for Circular Economy in Tanzania

Tanzania as many other parts of Africa's economy is intricately linked to global market dynamics. The international drive towards circular economies (CE) particularly in regions and countries with a strong influence on global material and financial flows, such as the European Union (EU) and China, may bring both economic opportunities and risks. There is little CE-specific legislation and so regulations and policies in operation and policies are generally focused on climate change mitigation, the Green Economy (GE), and waste management. The UN 2030 Agenda for Sustainable Development (UN, 2015) and the UNFCCC COP 21 Paris Agreement are two of the foundational global agreements for relevant policy and legislation developed to date. Proposals for implementation are often presented by policy makers in Africa but take time to achieve promulgation into government policy and legislation.

It should be noted that, the theory behind the circular economy has been emerging in Europe, USA and China relatively recently. Africa and so Tanzania has been practicing circular economy for many years such as repair, reuse, refurbishment, sustainable farming practices and the sharing economy. Historically much of the circular economy activity on the continent has been born out of necessity. In recent years, circular economy activities in Africa have largely been driven out of a need to improve environmental management and protect biodiversity. But the narrative is changing and if the transition to a circular economy is to accelerate in Africa, then it needs to be based on maximizing the value of resources for economic development and job creation through initiatives such as industrial symbiosis which Tanzania is now advocating industrial led economy (URT, 2018).

Circular economy activities continue to increase across the continent, with lots of

different examples of circular economy models in practice across countries. In Tanzania particularly, the private sector appears to be taking the lead in driving the circular economy transition and significantly, innovative business models appear to be led by Small and Medium Enterprises (SMEs) rather than large global companies.

Tanzania, as with the rest of Africa and the world, is standing on the brink of a new global phase. The transition towards CE will be able to contribute towards the achievement of the UN Sustainable Development Goals, particularly Goal 12 “Sustainable Production and Consumption”. The opportunities for accelerating CE principles in Tanzania and also in Africa are increasing. As well as lessons learnt to be shared from European countries, India, South America and China, African entrepreneurs and start-ups are emerging. Yet there are local, regional and continental constraints which need to be overcome for this momentum to accelerate. In order to assist in the acceleration to a circular economy in Africa, support from a variety of stakeholders is now being sought to reach organizations and policy makers across the continent.

With Tanzania’s growing population and rapid urbanization, urban planners should design systems for resilient and resource-efficient cities. Circular systems can help reduce rising levels of municipal waste, with better management having positive impacts for the environment, health and urban economies. For example, designing economic activities around the recovery of resources, reuse and recycling could help create jobs for rising urban populations. Small-scale farmers could use this approach while offering the potential of mini-grids and electricity access for rural communities. Overall, the adoption of more sustainable farming practices together with a reduction in food waste could not only help conserve water, but also sustain the productivity of agricultural land.

The clearing of forests for agricultural activities, burning charcoal like what is

happening in the central and Western regions of Tabora and Kigoma, the Southern highlands of Mbeya, Njombe, Rukwa, Ruvuma and Songwe; and other human activities results in more than 25% of the forest cover being lost. The likelihood of contact between wildlife, humans and their livestock increases. Protecting tropical forests could help curb the spread of zoonotic viruses. In that case, the cost of investments to prevent future pandemics could be far lower than the cost of managing them. Protecting this resource with circular economy practices could go a long way to combating future pandemics while at the same time sustaining forests that helps lower global carbon emissions. Here the example of combining solar energy and agriculture could be one way to reduce the demand for wood fuel while increasing sustainability. A circular economy can support Tanzania’s economic development, enhance sustainability and help curb future health problems. It only requires collaboration between government, business and consumers. It may not be a silver bullet for development but can certainly make the country more resilient to future threats.

Even though it was not an issue that threatened Tanzania much as the rest of the Eastern African countries, but COVID-19 worsened food security issues to neighbouring countries and across the continent. Circular methods can help prevent hunger while boosting the economy and protecting the environment. It is prudent that some strategic actions are taken. For instance, training farmers in methods such as recovering wastewater for irrigation can help shift production to more climate-smart models. Additionally, converting food waste to organic fertilizer can strengthen green manufacturing and increase circularity in food systems. Rethinking agriculture for the country as a strategy in food resilience and exports is paramount as the sector employs more than 70 percent of the workforce (URT, 2018).

CONCLUSION AND RECOMMENDATIONS

By identifying the necessity for a new economy called as circular economy, which is successfully growing in few parts of the world, we believed this new way of envisioning economy would serve as a remedy and help in creating a sustainable future that Tanzania is looking forward to. It is concluded that, this work contributes to the contemporary debate on the contribution of leadership in developing circular economy in the country. Circular economy is the valuation of resources in a circular loop system with the object to allow for use of natural resources while shredding pollutants or avoiding resource constraints and henceforth sustaining the socio-economic and environmental growth. Transitioning towards a circular economy requires lot of time, effort and energy as it inculcates catering to all the hiccups and acquiring numerous opportunities in the way. This has to be implemented at the individual, organizational and country level so as to make it a great success. Moving towards circular economy is a boon for the planet if implemented in an appropriate manner. Various countries have already started working towards it and now it is spreading its roots all over the globe to include Tanzania. It has been observed that circular economy can lead towards social, economic, as well as natural conservation and development. As we move forward, the corporate momentum clearly specifies that the opportunities are only going to expand in favor of circular economy in the future. Circular economy measures are often present with the developing and underdeveloped nations, but are not mainstreamed because of the existence of uneven economic growth and lack of financial backup. It is recommended that, corporate houses, academic and research personnel, together with the government and political support, needs to capture the concept altogether to attain sustainability. Different leaders from public-private-not for profit sector can catalyze innovative and creative

measures of circular economy towards new processes, products, policy frameworks that may be embedded in the move for industrialization in Tanzania.

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