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Leveraging the Circular Economy and Advancing Sustainable Development in Developing Countries: A Call to Action

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Abstract

The concept of the circular economy has been widely debated on a global scale following the implementation of the Sustainable Development Goals. It has garnered significant interest and attention from academia, policy makers, and industry stakeholders. The absence of a globally acknowledged definition of the circular economy has resulted in its status as a concept that is subject to debate and disagreement. The circular economy is perceived as a viable alternative to conventional linear patterns of production and consumption. The adoption of the circular economy on a global scale will have implications for emerging economies. In that vein, the economy of Bangladesh has the potential to be strengthened to a certain extent by the implementation of suitable policy instruments. This essay urges the policy community and the community of practise to embrace the concept of circular economy as a means to achieve sustainable development.

Keywords: *Circular Economy; Sustainable Development; Developing Country*

Introduction

The circular economy has been the subject of extensive discussion across the globe since the adoption of the Sustainable Development Goals (SDGs); it has gained a burgeoning attention in the academia, policy and industry (Ellen MacArthur Foundation, 2012, 2014; Geissdoerfer et al., 2017; Korhoren et al., 2018). This article calls for action from the policy community and the community of practice to eschew circular economy in attaining sustainable development.

Results and Discussion

So far, there prevails no universally accepted definition of circular economy, thus it has become a contested idea (Korhoren et al., 2018). Kirchherr and his colleagues extensively looked into a plethora of definitions of the circular economy, and discovered at least 114 definitions of the circular (kirchherr et al.

2018). According to Geissdoerfer et al. (2017), there were merely 30 journal articles were published in 2014, contrary more than 100 journal articles on the circular economy were published in 2016.

The circular economy is viewed as an alternative to traditional linear models of production and consumption. Traditional production and consumption models are based on the take, make, and waste or take, make, and dispose principle; however, CE emphasizes waste prevention (Deng and Doberstein, 2008; Ghisellini et al., 2018; Galvao et al., 2018; Stahel, 2019; Schroder, 2021). The CE emphasizes environmental and energy efficiency – minimal reliance on new natural resources – and natural capital sustainability (Ellen MacArthur Foundation, 2012; Li et al., 2010). However, many researchers lambasted the practicality of circular economy. For instance, Naude (2011, p. 352) labels CE as a "theoretical dream". Now is the time for developing nations such as Bangladesh to advance the circular economy in their policy frameworks and practice. In doing so, this article urges the community of practice to take relevant policy actions.

Circular thinking encompasses all significant aspects of human existence, including the economic, social, and environmental. A rise in circular economy not only bolsters GDP growth but also the GDP growth of the poor countries; it improves the quality of natural capitals (UNEP, 2021). In this regard, one UNEP study indicates that allocating two percent of the global GDP to a green economy would increase economic output (UNEP, 2021). While the majority of the impoverished population relies on natural resources for subsistence, any exploitation of natural capitals will result in a poverty trap. It will subsequently exacerbate environmental issues and world poverty (UNEP, 2021).

Although circular economy agenda is not explicitly mentioned in the sustainable development goals (SDGs), the central concepts of circular economy are reflected in a number of SDGs, especially in the SDG 12 (Schroder, 2021). In addition, as a cross-cutting concern, circularity is linked to several other SDGs, including 2, 6, 7, 8, 9 and 15. Ghosh (2020) claims that circular economy practices immediately supports 21 SDG targets and indirectly contributes to 28 SDG targets. In both direct and indirect ways, according to Schroder (2021), circular economy can facilitate the achievement of a number of SDGs objectives. Moreover, a circular supply chain in agriculture can contribute to the achievement of SDGs 2, 8, 12, and 15 by reducing pollution and waste, as well as play a vital role in the fight against poverty and the maintenance of food security (Schroder et al., 2018; Ghosh, 2020; Schroder et al., 2020). Possibly, these circular activities would create more opportunities for the impoverished and low-income population to generate income.

China is considered as the first country in the world that embodied circular economy in her Five Year Plan (FYP) documents, reflecting in both 11th FYP (2006-10) and 12th FYP (2011-15) (Murray et al., 2015; Zhijun & Nailing, 2007). As a developing country Bangladesh has already embarked on sustainable development via circular pathways. Although her circular economy interventions are in their infancy, which mentioned in several macroeconomic policy frameworks such as the 8th FYP. In addition, a range of policy instruments that could help institutionalize circular innovations and business models. In its four pillars, for instance, the Bangladesh Country Investment Plan for Environment, Forestry and Climate Change (2016-21) emphasizes several circular economy components, such as sustainable development and management of natural resources and environmental pollution reduction and control (Ministry of Environment and Forests, 2017).

In addition, the Government of Bangladesh (GoB) developed a National 3R Waste Management Strategy in 2010. It denotes a goal of eliminating refuse disposal and promoting waste recycling, which are closely related to circular thinking (Ministry of Environment and Forests, 2010). With population growth and urbanization accelerating, the demand for raw materials is mounting up. According to the World Bank (2018), the urbanization growth rate in Bangladesh is 3.23 percent. Consequently, the

quantity of various types of waste, including sludge, has multiplied over time. By 2025, the production of municipal waste could reach 47,000 tons per day, or approximately 17.2 million tons per year. While only 44% to 76% of waste is collected in major cities and urban areas, there is an increased need for enhanced waste management (Ministry of Planning, 2021).

In addition, in 2017, the GoB adopted an institutional and regulatory framework for the management of faecal sludge in Dhaka, City Corporations, Paurashavas, and rural areas. Although there is a data gap, the urban poorest and most marginalized individuals are involved in urban refuse collection and treatment. Recovery of resources from various types of waste, such as municipal waste, industrial refuse, and plastic waste, can contribute significantly to the circular economy. Circularity in the urban resource system would benefit the impoverished in the food, water and sanitation, energy, building and construction, and industry sectors, among others.

The consumers at both individual and organizational level could play a substantial role in the promotion of circular consumption and production. The relationship between circular production and consumption is reciprocal. Galvao et al. (2018) identifies customers and social influence as two critical factors along with technical, economic and managerial dimensions in realizing circular economy. The current status of circular production and consumption is unfathomed in most of the developing countries. Consequently, a knowledge gap exists – which must be addressed by gaining a deeper comprehension of the possibilities of expanding circular production and consumption. Due to a structural shift in production and consumption, institutionalizing new practices and connecting the population continue to face a variety of obstacles.

The global paradigm shift towards the circular economy will impact any emerging economies. Likewise, Bangladesh's economy could be bolstered to a certain degree if appropriate policy instruments are adopted. In the near future, the nation will be required to implement and promote a variety of circularity practices, coupled with a multitude of public and private investments. This article concludes with a demand for a set of policy tools to investigate how circular economy can be leveraged in Bangladesh and over developing nations; potential consumption and production-related behavioral change among diverse communities in adopting circular practices, which will ultimately champion green growth.

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