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Circular Economy: Our Future Trajectory Towards Sustainable Development

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Introduction

Latest estimates suggest that the global populace will reach a figure equivalent to almost 9 billion by 2030 – putting more strain on the scarce resources as a further 3 billion middle-class consumers will be added. In order to keep up with this lighting pace, the world will need to produce 50% additional energy, 50% additional food and 30% additional water within the next few decades. The relevance of circular economy is more than ever in order to change the fundamental method of consumption and production to make the best use of finite resources. A circular economy is built with the focus on generating positive benefits for the society entailing the creation of a zero-waste system. The model of a circular economy is based on the transition towards use of renewable energy sources. It is pivotal for Bangladesh to change its production processes to meet the pressing need of achieving a sustainable economic system. The model helps to build three forms of capital: economic, natural and social. While the environmental problems are putting the earth's life-support systems at risk, it has become vital for the nations to adopt the concept of a sustainable ecosystem.

Importance of Urban Planning in a Circular Economy

Almost 50% of the world's population live in urban areas. By 2023, the urban population of Asia is expected to outweigh its rural population in terms of numbers. While the urban transition phase brings unprecedented economic challenges, urban planning is crucial to make the most of living in urban areas. Urban planning is crucial for the development of a circular economy where the value of resources is maintained at a sustainable level and the level of waste is at a minimum level. The overwhelming predominance of Dhaka is a major cause of concern in terms of developing the nation. Hence, there is no way to undermine the need for an integrated urban planning system in Dhaka city. Dhaka is the most densely populated city in the world and the problem concerned with overpopulation has increased due to the unplanned urban expansion. In the capital city of Bangladesh, proper urban planning is the way to enhance the quality of life. More work should be done in the following sectors: waste management system, cost of housing facilities, public transportation system, the condition of roads and development regulations.

There should be innovative approaches aimed towards the renovation of Dhaka city enabling the process of uniting all the regulatory entities under one umbrella. This holistic approach will reshape the city's future for a better tomorrow. Various combinations of infrastructural investment policies are essential for a more meaningful development. Development work can commence on grounds of commutability and mobility. An effective way to do this is to focus on

building the transit routes which can complement the usage of land and the transportation system which in turn will have a positive impact on the zoning capacity. Approximately more than US$ 20 billion will be spent on Mass Rapid Transit (MRT) and Bus Rapid Transit (BRT) over the next few years necessitating the process for transit-based development.

Dhaka is one of the most vulnerable cities in the world in terms of being adversely impacted by climate change. Climate-sensitive measures and related adaptation activities can protect Dhaka from the catastrophic implications of climate change. There is no better alternative other than to resort to nature-based solutions. Improvements in water-management systems and environment friendly initiatives can save Dhaka from playing havoc with damages worth billions of dollars. Assistance can be taken from international organisations like the World Bank which has upheld an effective exertion in Colombo to recognise and secure metropolitan wetlands, and to improve the water-management frameworks. In this case, the conservation of wetlands decreased the flood hazard for more than 2 km^2 of metropolitan land, and alongside office enhancements, likewise extended the measure of metropolitan green and park space for diversion and satisfaction by Colombo's residents. Innovative approaches to deal with water and flood hazard will be indispensably significant as the city grows toward the east on the floodplains along the Balu river. Approximately 60% of the land in Dhaka is at or underneath expected flood levels, and further new construction projects infringe on existing seepage waterways and lakes.

Land pooling can also pave the way for better urban planning and growth. For instance, Thimphu is an exemplary example of land pooling in terms of designing new development plans and promoting urban regeneration. In Dhaka, the rise of development projects in the northern and eastern regions of the city has expanded the earnestness for planned urban expansion that gives essential foundation and regularised plots for development. Through land pooling, land owners agree to give up a portion of their property to create scope for trunk infrastructure (streets, drainage, water and sewerage networks) and community facilities. Landowners and other concerned offices can together decide the area and measure of land to be saved for these amenities. A land pooling plan can lead to constructing affordable houses, mass travel stations, green spaces, or quite a few different employments. The World Bank embraced a demonstrative evaluation of urbanisation challenges, administration plans and financing alternatives to assist the public authority with building up a system for metro Dhaka. It was discovered that an institutional system is a must to ensure top priority projects in specific areas of the city and likewise these projects need to be sequenced and integrated rather than being duplicative, clashing or undesirable.

Shanghai can be considered a role model in terms of taking the right approaches for transforming the city into an economic miracle in spite of the population growth from 6 million to over 24 million. The factors which played a huge role in terms of shaping the economy consist of better access to services, more economic activity, improving the quality of life and greater transportation systems. Shanghai serves as an exemplary urban city in terms of proving that success requires a transparent vision which is backed by the concerned stakeholders: government agencies, private companies, citizens and development agencies. Another key factor is that approximately 30% of Dhaka's population resides in slums and the biggest issue in slums is

concerned with exorbitant housing rates where the living conditions are not up to the viable standards. Hence, urban planning can play a significant role in case of improving the lives of this mass populace who are subjected to a detrimental urban environment due to a lack of resources. Dhaka is the most important economic city for Bangladesh as it makes up for 36% of the country's Gross Domestic Product (GDP). Chittagong is the second most important city after Dhaka which contributes around 11% of the nation's Gross Domestic Product (GDP) and hosts 3% of the total population. Chittagong needs to come up with a transformative economic system that is filled with diversity and there should be more investment in building the human capital. The connectivity system of Chittagong needs to be widened in order to boost productivity and competitiveness. The transition concerned with urban planning is vital to build an internationally mobile workforce hence the planning needs to start today as our current action plans will reshape our future.

Figure 1: The Circular Economy Model and Its Benefits

(Source: United Nations Industrial Development Organisation)

The Role of Circular Economy during COVID-19

The global economy is mostly dependent on at least 100 billion tons of raw materials which are newly produced each year and does not lead to creation of a sustainable economic model. During the outbreak of COVID-19, it has become evident that the economic model requires a fundamental change. Circular economy is one of the most comprehensive solutions in order to address this fundamental need which is built on the foundations of recycling waste in order to

make the best use of the available resources. The aim revolves around designing out waste and pollution in order to keep the usable products and materials to serve the greater purpose of regenerating natural systems leading to faster progress entailing achievement of Sustainable Development Goals (SDGs). It will further help to ensure water security and combat the adversities concerned with climate change. The application of the model based on circular economy is already underway as N95 masks are being given a new life through decontamination. If we think of the long-term implications, it is already clear that the solutions must be based on resilience, decarbonisation and a sustainable growth trajectory.

Building a functional transition towards circular economy includes a number of relevant factors: collaboration, proactive recovery financing and accelerated digitalisation. A circular economy promotes more value and resilience in all the stages of supply chain. Moreover, stimulating the pathway to a sustainable economic recovery is no different in terms of combating the COVID-19. The Readymade Garments (RMG) sector of Bangladesh can be taken as an example in terms of creating a joint platform where government agencies, business associations and development partners are catering to the situational needs and demands in order to boost the industry. Stimulus and financial support programmes are vital for the economy to bounce back and implement the circular policy goals. COVID-19 has already allowed many nations on earth to take up the relatively new aspects concerned with digitalisation in order to maintain the social distancing protocol. Digitalisation is a crucial enabling force for building a circular economy as it helps the business to reduce waste and enhance productivity.

Conclusion

There is a clear opportunity to shape our future in terms of building an adequate economic system which functions on the basis of improving the environment alongside minimising the waste. Circular economy also helps to reduce resource dependency and create further job opportunities to promote a greener ecosystem. Therefore, there is no means for the society to undermine the magnitude of beneficial footprint which can be accomplished through building a circular economy.

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