



# A systems approach for transitioning Southeast Asia to a circular economy

The current trajectory of Southeast Asia's production and consumption resulting from its rapid growth is increasingly putting a strain on the environment. Measures to contain the pandemic have intensified the environmental pressures because of increasing volumes of medical waste, plastics and packaging due to the e-commerce boom and other resource stresses.

## AN AMBITIOUS AGENDA

As countries in the region embark on their green recovery agenda in the wake of COVID-19, there is a pressing need to transition from the linear economic model of "take, make, waste" to a circular system. A circular economy (CE) is grounded in three principles: (1) Designing out waste and reducing pollution; (2) keeping products and materials in use; (3) regenerating natural ecosystems. This paradigm shift can bring about economic growth of US\$ 324 billion and create 1.5 million jobs in Asia by 2025, according to a study by the Economic Research Institute for ASEAN and East Asia.

Although the term "CE" may not yet be commonplace in policy-making circles, countries in the region were already introducing various pertinent policies and regulations as far back as the 1990s and early 2000s. However, approaches were fragmented across the region. Given Southeast Asia's strong economic integration, it is imperative to foster coherence in this area by formulating and coordinating circular economic policies at the regional level.

Linear approaches are deeply rooted in our systems and heavily integrated into our communities, economies and national development. The transition to a CE is an ambitious agenda, requiring not only innovative technologies but also massive capital and new business models, coupled with significant behavioral changes.

While circularity has gained traction over the years, the lack of a regulatory framework and incentives inhibit implementation. In some jurisdictions, recycling and reusing materials may be a barrier in pushing circular models due to hygiene and consumer protection laws. In addition, the lack of standards for recycled and remanufactured products may lead to variations in quality and performance of such goods.

Engaging in a CE strategy may also bring difficult trade-offs. For instance, imposing extended producer responsibility can cause suppliers to leave small markets. On the consumer side, there may be options to shift to circular consumption patterns, but these may be considered impractical and inconvenient. Consumer acceptance is a critical factor in scaling circularity, and this could be influenced by the quality of recycled goods and other circular innovations and perception of second-hand or upcycled products.

## ASEAN FRAMEWORK FOR A CE

The Association of Southeast Asian Nations (ASEAN) has developed a framework that highlights the role of trade, technological innovations, and financial markets for accelerating the circular transformation. The followings are its five strategic priorities, which set a path for the smooth transition to a CE.

*Harmonization of standards and mutual recognition of circular products and services*

It is important for ASEAN countries to review existing arrangements in various sectors and harmonize standards to enable trade of circular products and services and facilitate integration between value chains. To mainstream and scale circularity, a broadly accepted definition of circular products and services should be established through the development of a taxonomy, which can help minimize the cost of compliance among businesses and reduce unnecessary regulatory burdens.

*Trade openness and trade facilitation in goods and services*

Trade rules and regulations need to be overhauled to facilitate the circular transition of economies. Addressing the potential trade barriers is key to ensure the seamless movement of environmental goods and services and the diffusion of circular technologies. There should also be support for businesses in their supply chain management efforts, which may include technical assistance and testing beds for emerging technologies.

*Enhanced role of innovation, digitalization, and emerging technologies*

Technological solutions and innovations need to be harnessed to accelerate the shift to a CE. Blockchain, for example, can provide a means of traceability of material flows and give information on how the product can be recycled or remanufactured. Knowledge tools—such as databases, directory of relevant institutions or experts, and information materials on best practices or technologies—could serve as useful resources for Government and industry stakeholders in countries that are in the nascent stage of their circular journey.

*Sustainable finance and innovative investments*

With the rapid growth of various forms of sustainable investments, the finance community plays a critical role in encouraging new business models that support the CE of investments in both linear and circular models. Harmonized sustainability standards are also important to determine the eligibility of initiatives for green funding. In the meantime, governments can drive the shift to circularity by providing subsidies and tax incentives, supporting technological development, and promoting public-private partnerships.

*Efficient use of energy and other resources*

The sustainable use of energy underlies all economic activities in a circular economy. Therefore, focusing on reducing energy use and the adoption of renewable sources are vital to promoting a CE. Businesses, especially small enterprises, could benefit from capacity building programs on how to green their production processes as well as monitor and report their carbon performance.

**ADB-SUPPORTED CIRCULAR INITIATIVES**

Asian Development Bank (ADB), through its multidisciplinary approach, identifies CE entry points and delivers integrated solutions to its government clients. In particular, ADB is taking a programmatic approach to help communities along the Yangtze River Economic Belt in the People's Republic of China achieve water secu-



▲ *Circular systems can help cities address their growing garbage problem*



rity and green development and increase their resilience. ADB's multisectoral support seeks to stimulate economic development of the Yangtze River Basin while promoting the sustainable use of natural resources in line with the CE approach to reduce resource inputs, waste outputs, and pollution.

In addition, ADB is supporting various waste-to-energy (WTE) projects, which helps manage the growing volume of urban waste while increasing energy generation from renewable sources. In Việt Nam, ADB is supporting the construction and operation of a series of WTE plants with advanced clean technologies in multiple municipalities. This is the first municipal WTE public-private partnership project in the country.

Since the ocean economy represents 20% of the gross domestic product of some Southeast Asian countries, ADB's Promoting Action on Plastic Pollution from Source to Sea aims to address marine plastic pollution and support its member countries as the Global Plastics Treaty is designed and implemented. This technical assistance includes demonstration projects in Indonesia and Vietnam that are designed to support the transition to a circular plastics economy and improve waste management, with a focus on increasing the quality of recycling and value of plastics. Regional and subregional cross-learning and knowledge sharing are also key activities of this project.

## RECOMMENDATIONS

An integrated systems approach can help ensure a successful transition to a circular economy. The followings are recommendations for the consideration of policy makers.

*Plan for trade-offs in the policy design process*

Not only are policy design and decisions on CE disrupting established markets, systems, and supply chains, but the circular nature of the outcome means that there is far more time for both positive and negative emergent phenomena to manifest. While mitigating measures can be formulated to counter any potential adverse impacts of circular interventions, policy makers need to be agile to manage unforeseen trade-offs. Developing modelling techniques to capture the complexity of our systems is a challenge, but the advances and capabilities of modern technologies offer a major opportunity for understanding circular transitions.

*Enact holistic and integrated policies that address opportunities and challenges from both the demand and supply side*

The circular transformation calls for holistic policies with a shift in mindsets and multistakeholder collaboration at all levels. Within organizations, interdisciplinary approaches are crucial to the development of circular innovations. Within industries, collaboration on resource optimization can allow one industry to extract value from waste or by-products of another. Moreover, the circular transition is contingent on partnerships between governments and the private sector, which can help identify and finance capital-intensive solutions. Finally, companies need to work with consumers to gain insights into their perceptions and behavior when developing circular solutions.

*Develop systems for knowledge sharing and build the capacity of stakeholders*

Information sharing is essential for deepening the understanding of this evolving trend. As the library of CE transition projects and technological solutions grows, common success factors and areas for improvement can be identified. For businesses and workers, capacity building and reskilling are essential to help them apply circular principles in production processes. Standardized methodologies and tools are also necessary for evaluating their performance and measuring their progress ■

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(Source: *Development. Asian*)

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