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50 1972-2022

Circular Economy for a Resource Efficient Asia Pacific – Executive Programme on Circular Economy

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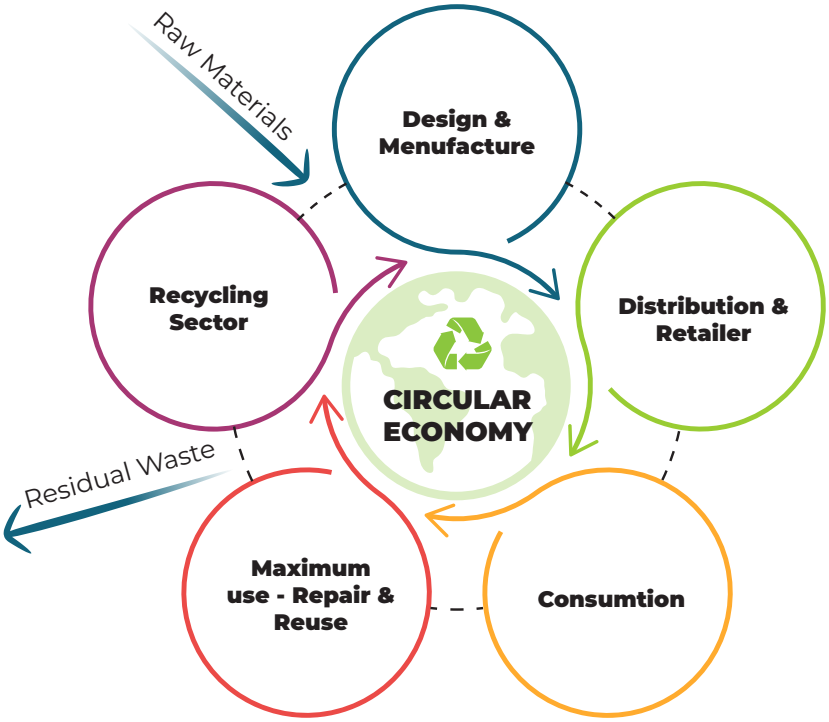
What is Circular Economy (CE)?



A circular economy entails gradually decoupling economic activity from the consumption of finite resources and is based on three principles: design out waste and pollution, keep products and materials at their highest value and in use, and regenerate natural systems. It leads to the transition from the current "take, make and dispose" extractive industrial model to a decoupling of economic activity from the consumption of natural resources and designing negative externalities such as waste and pollution out of the system.

63%

Natural Resources

In 2015, Asia and the Pacific represents 63% of global material use

330%

GHG emissions

GHG emissions from the region grew by 330%, including increase in short-lived climate pollutants

70%

Pollution

Air pollution is responsible for more than 6.5 million deaths annually, the bulk of which – 70 %– occurs in Asia Pacific.

$8.5 trillion

Plastic

6,300 Mt of plastic waste generated as of 2015. Of this, 9% recycled, 12% incinerated, & 79% has accumulated in landfills or environment.

6x

Covid-19

Global economy is expected to lose nearly $8.5 trillion in output over the next two years due to the COVID-19 pandemic

Benefits of Circular Economy

Circular economy solutions can have economic, social, and environmental co-benefits through reduced demand for natural resources, reduced emissions, job creation and fostering innovation.

Essential elements of CE

UNEP is leading on SDG 12 (responsible consumption and production) which provides the

1 A transition to CE approaches is estimated to provide more than US$ 1 trillion in material cost savings by 2025.

2 In major consumer goods sectors, the magnitude of the material resource savings generated from CE could result in up to US$ 706 billion annually. Considering that the Asia-Pacific region accounts for more than 60% of the global share of key fast-moving consumer goods sectors, the scale of potential benefits would positively impact the region's economic development.

3 Environmentally, circular models have the potential to significantly reduce emissions from landfills and efficiently manage waste and wastewater

4 With over 50 per cent of global greenhouse gas emissions currently related to material management, the circular economy may potentially close approximately half of the emissions gap between current policies and the 1.5°C target of the Paris Agreement.

5 CE can generate both skilled and un-skilled jobs. A global study estimates that in just three to four material flows, a circular economy transition alone can deliver at least 100,000 new jobs. Enterprises would also experience an enhanced rate of innovation as they are incentivized by the circular economy to innovate and improve the life-cycle of products.

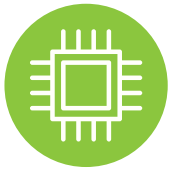
SDGs directly contributed to:

Source: *Ellen MacArthur Foundation*

Downstream and upstream indicators for circular economy to close the loop as local as possible in the most environmentally and economically efficient manner with social benefits. As SDG 12 supports all the other SDGs, circular economy is one of the key tools to support the implementation of most of the SDGs. Based on UNEP's comprehensive experiences, following elements need to be prioritised for circular economy:

- Integration of CE approaches and practices into policies and business decisions
- Incentive mechanisms for CE
- Market value chain and financial support to SMEs
- Stakeholders' engagement, collaboration and Public-Private Partnerships for CE in high impact sectors
- Availability of data and replicable good practices effectively shared and replicated
- Capacity building, technical support and training for policymakers and SMEs
- Education, information and awareness for sustainable consumer choices
- Innovation and technologies for design and secondary resource extraction in supply chains

High impact sectors for Circular Economy



Electronics and ICT

- Energy efficiency, reparability, maintenance, reuse and recycling
- Devices such as mobile phones, tablets, laptops, cartridges, chargers, equipment
- Take back
- schemes
- Improved collection and sorting

Plastic and packaging

- Re-use and Recyclability
- Responsible use of plastic
- Eliminate single-use packaging
- Limit microplastic content
- Collection, sorting and recycling
- Use of recycled plastics

Transport

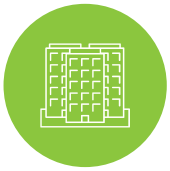
- Service based transport system Easy to use public transport
- walking, cycling, ridesharing, carsharing, alternative transport methods,
- Electric, biogas, fossil-free cars

Food systems

- Responsible consumer choices
- Food processing and retail sectors – transport, storage, packaging and food waste
- Sustainable agriculture practices
- Proper reuse of organic waste

Textiles

- Boosting market for textile reuse and sustainable textiles
- Addressing fast fashion
- Ecodesign measures
- Sustainable consumer choices
- Sorting, reuse and recycling of textiles
- Circular processes



Construction and infrastructure

- Green public procurement
- Energy and resource efficiency
- Increased recycled content and durability
- Management of Construction and demolition waste

Energy

- Renewable energy, waste-to-energy, fuel conversion, recycling materials from energy plants
- Energy efficiency
- Energy-as-a-service
- Utlization of excess energy and side streams

Industry

- Green procurement
- Ecodesign: durability and reusability
- Material efficiency
- Digital technologies
- Sustainability reporting
- Enabling remanufacturing and high-quality recycling
- Secondary raw materials

Concept

The Executive Programme on Circular Economy will aim to strengthen and expand the capacity and technical knowledge of public and private sector stakeholders to incorporate and implement circular gender-sensitive solutions to decrease resource intensity and material footprint per capita, waste generated from value chains, GHG emissions and overuse of natural resources. The approach will support the development and provision of tools, practices and knowledge products to stakeholders to support the dissemination, uptake and replication of policies, and best practices. The project components will promote capacity building, sharing data and experiences on best practices in order to encourage an inclusive adoption and implementation of circular economy practices and policies for the three main stakeholder groups: governments and policy makers, Small and Medium Sized Enterprises (SMEs) and civil society. These will be achieved through active engagement and collaboration across all stakeholder levels, including private- public sector partnerships, the business sector and the wider civil society.

The initiative will build upon and will draw on best practices, including the existing network of the SWITCH-Asia Regional Support Component, the SWITCH-Asia EU grant project, implemented across entire Asian region. The project is placed within the UNEP Project No. 614.2 **"Strengthening Resource Efficiency an Sustainable Consumption and Production Policy Frameworks in Asia Pacific"**. Against this background, the overall outcome of this project is **"Policymakers adopt Circular Economy policy instruments, regulatory frameworks and practices, along with SMEs and civil society mainstreaming Circular Economy in their decisions"**. To achieve this desired change in stakeholder capacity (overall outcome), the project is structured in three mutually supportive direct outcome areas with underlined project outputs - under which the project provides assistance:

Outcome 1. Circularity and Resoure Efficiency increasingly integrated in government policies, business decisions especially in impact sectors

Output A: Policy advocacy delivered for governance frameworks incorporating CE and RE in line with NDCs, SDGs, etc.

Ouput B: Knowledge generated and disseminated on circular economy for action on climate, nature and pollution

Output C: Facilitating partnerships, networks and dialogues with key public private stakeholders for integrating CE and RE policies

Outcome 2. Improved access and capacity for sustainable finance and circular business models increasingly incorporated by SMEs

Output A: Strengthening public and private financial institutions to support CE initiatives

Output B: Capacity building on innovation and technology for circularity provided to SMEs

Output C: Providing support to SMEs and financial institutions for development of innovative financing models and facilitating partnerships

Outcome 3. Increased public awareness and uptake of sustainable lifestyles

Output A: Awareness-building and engagement of consumers towards key role of circularity for Climate, Nature and Pollution action.

Output B: Providing support and capacity building to public and business for alternative green products based on global best practices

Output C: Engaging Schools and higher education institutions to integrate sustainable living in curricula and activities

The long-term impact envisioned is the availability of capacity at local, national, regional and global level for the **"Significant progress towards climate stability, recovery of nature stability and pollution-free planet through the transition to circular economy in Asia and the Pacific, aligned with the 2030 Agenda and Paris Agreement".** The following intermediate states have been identified as instrumental for the achieving the project impact:

1. Robust circular policy frameworks and sustainable value chains developed
2. National and regional financing networks and models for circular and sustainable initiatives established
3. Sustainable lifestyles mainstreamed resulting in low GHG, low waste production and consumption

Covid-19 Perspective

Increasingly, comparisons are being made between the pandemic and climate breakdown as both exposing an economy that is not resilient for the future. Developing a resilient system requires many of the same principles as an effective transition to the circular economy: collaboration, proactive recovery financing and accelerated digitalisation. Therefore, this project strives to use circular economy policies, practices and principles for making the covid recovery efforts sustainable, and resilient. The target focus areas of this project: integrating resource efficient policies and business decisions to enable sustainable value chains, access and capacity for sustainable financing and consumer awareness for sustainable lifestyles can therefore support covid-19 response actively.

In the COVID-19 context, the project will support UNEP's Build Back Better initiative, especially Building Block 3 on "**Greening Fiscal Stimulus and Finance Packages to Accelerate Sustainable Consumption and Production and Achieve the SDGs"**, and Building Block 1 on chemicals and Waste. It will also contribute to Building Block 3 on **"A transformation change for nature and people"** especially through raising awareness of the links between nature, health and sustainable living. It will also contribute to the UN framework for the socio-economic response to COVID-19.

Modules for the Executive Programme on CE

Contextualising the Circular Economy for Action

The basic aim of the pilot module is to demonstrate the structure of an online learning resource on the concept of a "Circular Economy" from the context of developing economies in Asia.

The pilot module will be presented in two parts, focusing on – (1) the concept of CE itself, particularly in terms of the policies and action needed to operationalize it, and (2) case studies on different sectors and from different countries to illustrate the viability and effectiveness of a CE.

It is targeted at national and local government officials (and their stakeholders) responsible for developing circular economy policies and action. The key policy tool that the module will present will be the "GET Matrix" as a concrete multi-stakeholder approach, bringing together three policy patterns – the Global-National-Local pattern; the Governments-Business-Civil Society pattern; and the Governance-Education and Technology pattern.

Circular Economy Model for Plastics Pollution Management

This module will on the Circular economy for plastic waste management from two different approaches i.e., top-down approach and bottom-up approach. The perspectives of regulations from policy experts and participation of private sector and entrepreneurship promoting circular economy were discussed. The issue of improper disposal of plastic waste was highlighted in all the presentations of the speakers. The total plastic waste value chain approach is to be taken into consideration when the problem the plastic pollution is planned to be solved. The collaboration of various stakeholders along the value chain and the intervention of regulations, entrepreneurship, research and community participation were emphasized.

The module will elaborate two aspects of the plastic management.

a. The top-down approach of plastic waste management applying the principles of circular economy and successful implementation in different countries
b. The bottom-up approach focusing on capacity building, people's participation, responsive private sector participation.

The two different approaches gave different views of looking at the problem of current plastic waste management issues holistically and provided overall management of circular economy principles with case studies.

Keeping in view the current challenges for plastic pollution management in the wake of COVID-19 pandemic, this module will also have added focus on COVID-19 related plastics and packaging waste management based on circular economy model.

COVID-19, a global pandemic of recent times badly impacted both human and environmental health. One of the visible impacts in the environment is the increased plastic pollution due to a dramatic surge in consumption of single-use plastic packaging such as disposable plastic food containers and cutlery, grocery bags from online grocery and food delivery, and plastic-based personal protective equipment (mask and gloves).

Even in pre-COVID times, South-East Asia (SEA) was responsible for 60% of global plastic leakage through its inadequate waste collection and management. COVID-19 further aggravated the situation as health care and municipal waste management facilities were overwhelmed with the volume of waste more than its existing capacity, and plastic recycling businesses badly impacted by COVID-19. Nonetheless, the region attempted some innovations to address the challenges of plastic pollution during the COVID-19 pandemic.

Amidst more than a year of the COVID-19 outbreak, this Webinar discusses how the plastic and plastic packaging and recycling industry, governments and consumers reacted and responded to, and are planning to navigate through the 'plastic pandemic':

1. Challenges faced by the region to managed COVID-19 induced plastics and plastic packaging waste
2. Innovations adopted by the region (product, technology, financing and business model optimization and innovations) for achieving a sustainable plastic and packaging waste management
3. Lessons drawn by the region for preparing for continued COVID-19 and/or future pandemics

Innovations and Start-ups for CE

Small and medium-sized enterprises (SMEs) are a substantial part of the business environment, especially in the Asia Pacific region and provide a majority of the employment. SMEs often depend on the availability of technology in the market. Moreover, while multinationals may be able to determine how circular economy concepts are adopted, an SME is, due to its size, often restricted to observing the trends in the market value chain in which it operates. Essential elements for innovation and start-ups for Circular Economy include:

- Necessary capacity and skills for technology and eco-innovation for CE
- Assessment and data for planning and reporting on resource efficiency
- Access to financing
- Strengthening awareness, dialogue, partnerships, network for CE knowledge sharing
- Adequate policy support, incentives and CE enabling frameworks
- SMEs have support from supply and demand supply network and effective supply chain strategies

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