

UNITED NATIONS DEVELOPMENT PROGRAMME

CIRCULAR ECONOMY



Development Challenges

The Philippines is one of the fastest urbanizing countries and has the second highest average urban density in the East Asia and Pacific region. Urban population grew by over 50 million people in the past five decades, with projections that by 2050, about 102 million people will live in cities, or more than 65% of the country's population. Between 2015 and 2020, urbanization levels increased by 2.8 percentage points to 54%.

The country is also a consumption driven economy, with Filipino households' final consumption expenditure accounting for 90.8% of GDP in 2021. As the country transitions to upper middle-income country, this manifest in demand for raw materials, and waste composition. Over the last three decades, the Philippines' material and energy flows increased corresponding to a two- to four-fold increase in demand for raw material, signaling the transition from agrarian towards an industrial and service-based economy. Waste composition is also shifting from biodegradable to non-biodegradable materials such as plastics, metals, and non-metallic minerals. This signifies inefficient allocation and use of resources and low levels of circularity, posing greater risks to the environment and public health.

The Philippines' waste generation steadily increased from 37,427.46 tons per day in 2012 to 40,087.45 tons in 2016 and is expected to increase by 165% to 77,776 tons by 2025. Metro Manila generated the biggest volume of waste. About half of municipal solid wastes generated in the country is biodegradable, mainly food waste, followed by recyclables, representing 28%. Meanwhile, historical data shows that approximately 75% of plastics will likely end up as waste clogging landfills, sea, and waterways.

This consumption-driven economy, among other factors, has contributed to marine litter, where majority is plastic waste, has become one of the most pressing threats to the coastal and marine environment, particularly in the Philippines, given its archipelagic nature and being the global epicenter of marine biodiversity. The Philippines is contributing almost three million metric tons of plastic waste generation and about 500,000 metric tons of plastic waste leakage per year.

In 2015, the Philippines was named as one of the third largest source of discarded waste – bulk of which is plastic waste, that ends up in the ocean. This gave prominence to the issue of plastic pollution in the country. However, as we know, marine litter is just a symptom of a more complex and systemic issue. It is a transboundary challenge, rooted in unsustainable production and consumption patterns, poor solid waste management and lack of infrastructure, poor enforcement of policies and regulations, and lack of financial resources. Economic, behavioral and political factors are at play here as well. Marine pollution has been posing significant environmental, economic, and social costs.



The Philippines formulated the **Sustainable Consumption and Production Action Plan**, prepared the **National Action Plan on Marine Litter**, and enacted the **Extended Producer Responsibility Law**, to address these issues. The government has also been actively engaging with development partners to help accelerate the country's transition from a linear – take make waste- economy to a circular economy. A **Circular Economy (CE)** minimizes the environmental impact of economic activities and 'closes the loop' of the value chain, so almost nothing goes to waste. Transitioning to a green, circular economy involves many elements. The critical ones include:



- Promoting **sustainable production** through material and energy efficiency, eco-friendly materials and clean, renewable energy notably solar and wind.



- Promoting **sustainable consumption** by avoiding single-use items and keeping products in use for as long as possible.



- Promoting **zero waste societies** through waste reduction, and diversion for reuse, repair and recycling to recover valuable materials and minimize waste.



Support to Circular Economy

The United Nations Development Programme (UNDP) has been at the forefront of the country's efforts in promoting circular economy. From pilots and policy support, the new **Country Programme Document (CPD)** embraces circular economy as a flagship programme to support the implementation of the country's Nationally-determined Contributions (NDC) through reduction of greenhouse gas emissions from key sectors such as wastes, likewise contribute to generating green jobs and new enterprises, at the same time supporting key actions to protect marine biodiversity and reducing pollution.

All these actions are expected to contribute to the 2024-2028 CPD Outcome: **By 2028, all people benefit from just transition to low-carbon, climate-resilient development, sustainable management of environment, natural resources and biodiversity and strengthened resilience to disasters and natural hazards.**

UNDP's actions on accelerating circular economy in the Philippines is anchored on the following key actions:



Strengthening evidence base for policy making and programming



Development of enabling policies and strategies



Local actions to implement CE solutions



UNDP Efforts to Support Transformation to Circular Economy

Strengthening Evidence Base

UNDP supported a number of studies to contribute to the growing body of knowledge to better understand the initiatives, potential and extend of the plastics and waste management issue in the Philippines.

The **Systems Mapping of the Plastic Economy and Innovation Ecosystem** and the **Stocktaking of Waste Management and Circular Economy Initiatives and Actors** were meant to establish current initiatives and entry points for circular economy in the Philippines. Both these analytical pieces of work identified policies in place, programmes by national, local governments and private sector and identified gaps in the current system.

At the local level, the UNDP conducted ethnographic surveys in Pasig, Quezon, Manila, Cotabato, and Caloocan cities as basis in design of communication and advocacy activities in support of circular economy.

To systematize data collection and understanding of the country's baseline conditions on circular economy, the UNDP, working with DENR and through funding from Japan, developed a data compilation of baseline data using the OECD circular economy indicators. Likewise, a data platform was established to take stock of important data on key indicators.



Development of Enabling Policies and Strategies

UNDP made a significant contribution in raising the visibility of CE as a development and policy priority of the Philippines, emphasizing the importance of the paradigm shift from linear economy to CE, and its contribution to the achievement of the Philippine NDC. UNDP has been supporting the government in advancing policies to improve waste management. It supported the formulation of the **Ecological Solid Waste Management Act** implementing rules and guidelines, as well as the country's NDC. The latter embodies circular economy as a key strategy for mitigation and adaptation.

Likewise, upon the request of government, UNDP supported the formulation of the National Action Plan on Marine Litter (NPOA-ML), which now provides as a guidepost for engaging with key stakeholders and monitoring key actions in making progress on major commitments. The NPOA-ML identified circular economy as a key strategy to achieve its goal of zero plastics in marine waters by 2050.

The UNDP was instrumental in supporting the Philippines in the formulation, stakeholder engagement and adoption of the implementing rules and regulations (IRR) to operationalize the **Extended Producer Responsibility Act**, a new legislation that extends the legal accountability of manufacturers for the environmental impact of their products, particularly plastic packaging, throughout the entire product lifecycle. Through the Japan-funded **Accelerating NDC through Circular Economy in Cities Project**, the IRR has been in force, which mandates phased reduction of plastics production by obliged enterprises until 2028. The EPR Framework was also developed with UNDP support, outlining key steps to address other types of packaging wastes. Continued support was provided to enable DENR to comply with the requirements of the law, such as the EPR Registry, which is now operational; the formulation of cost of services for delivering on EPR processes; as well as assessment of organizational and management capacities and staff requirements to implement the EPR.

To fill in the gap in policies and strategies, the UNDP formulated the initial Circular Economy Framework. This is expected to serve as basis for further articulation of clear policies and programmes to guide actions by agencies, local governments and other stakeholders as well.

Local Actions

Local government units (LGUs) play a pivotal role in driving the circular economy transition in the Philippines. Thus, UNDP focus on working with cities and municipalities to support implement local actions. Through the support of the **Government of Japan**, UNDP enhanced the circular economy capacities of the LGUs of Caloocan City, Cotabato City, Manila City, Pasig City and Quezon City, through the following:



- Development of a Portfolio of CE Solutions for four cities (i.e. Caloocan City, Cotabato City, Manila City, Quezon City) which identifies a suite of projects, programs and activities on CE that the cities can choose from for future implementation



- Provision of CE equipment (e.g. Mobile Waste Processing Facility, Plastic Melter, Biogas Digester) to 5 cities, serving as a proof of concept, and enabling them to upcycle plastic waste into usable items (e.g. school chairs, flower pots, waste bins) and to extract methane from food waste for use as cooking gas



- Provision of equipment and materials (e.g. sewing machines, floating storage materials, pasteurization drum, semi-automatic mushroom bagger machine) to CE grassroots innovators in 11 communities to support their community-based CE innovations



- Conceptualization of the Innovation for CE (ICE) Hub of Pasig City, a planned local government facility that will serve as a center for CE services and innovation



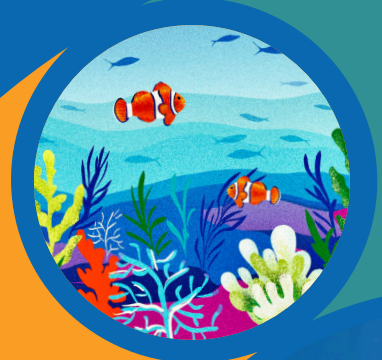
- Collection of baseline data for CE in the Philippines and publication of "Baseline for CE in the Philippines: A Data Compilation"



Through the **European Union - Philippines (EU-PH) Partnership for Green Economy: Green LGUs Project** and under the leadership of the Department of the Interior and Local Government (DILG), UNDP is supporting 20 LGUs, and another cohort of 40 LGUs, to enhance the capacities and practices of LGUs for the circular economy transition. This will be facilitated in collaboration with private sector and civil society organizations (CSOs), with focus on youth and gender equality, and social inclusion. The project aims to achieve the following results:

- Reduced volume of wastes generated and sent to landfills
- Greenhouse gas emissions reduced and voided from reduced waste and implementation of circular economy initiatives
- Source separation collection systems for wastes for CE interventions implemented by LGUs
- Increased number of MSMEs applying sustainable consumption and production practices
- Additional green jobs supported/sustained
- Increased funding allocated by LGUs, private sector and/or key stakeholders to implement CE initiatives and/or resilient wastes infrastructure
- CE policies developed or revised
- Increased number of LGUs that have adopted and/or scaled up good practices in CE, gender equality and social inclusion and safeguards
- Increased number of LGUs that report their contribution to the NDC, including GHG emissions
- Increased levels of awareness and behaviors of stakeholders

The Green LGUs Project is part of the larger EU-PH Green Economy Programme in the Philippines (GEPP). Spearheaded by the Department of Environment and Natural Resources (DENR), this programme aims to support the Philippines' transition towards a green economy, including circular economy, reducing waste, as well as energy efficiency and renewable energy deployment to support climate change mitigation.





Potential Areas of Collaboration

The transition to circular economy and the realization of its full potential benefits entail a whole of society approach. Thus, the new CPD aims to actively engage with a broad range of stakeholders to ensure full alignment with the principles of circular economy.

Expanding Engagement with More LGUs

LGUs play a crucial role in advancing the circular economy, providing an ideal environment for innovative and scalable solutions. With policy autonomy and fiscal capacity, LGUs can shape the circular economy landscape. Despite differing contexts and capacities, there is potential to foster entrepreneurial LGUs that drive supply and demand dynamics. However, addressing key barriers faced by LGUs and stakeholders is necessary to accelerate the transition towards a circular economy at the local level. Over the next 4.5 years, the UNDP seeks to leverage its work with twenty plus forty LGUs under the EU-GEPP Programme, to further influence the actions of more local governments. It will seek to create champions and platforms for engagement and exchange of experiences among local chief executives.

Promoting a Systemic or Portfolio Approach to Circular Economy

UNDP ensures that circular economy policies, actions and innovations are not carried out in silos; CE actions will take into account a broader landscape of sectors, structures and partners to ensure sustainability and ownership. This approach also translates to greater inclusivity of GEDSI actors, the youth and local stakeholders. The UNDP will engage with other stakeholders to ensure a more holistic approach in promoting circularity in other sectors such as energy, transport, infrastructure, and constructions, thereby maximizing the potential for the country to realize the benefits of circularity. These will be translated into contributions to achieving the NDC ambition of the country.

Strengthening Engagement with Private Sector and Other Partners

The actions of private sector, civil society and other stakeholders are important to accelerate the transition to circular economy. UNDP will strengthen its partnerships with these sectors, including the finance sector.

Innovation and investments driven by private sector champions and sector leaders is integral to a successful transition and to realise scalable CE impacts. First, UNDP will identify viable CE solutions, and to create proof of concepts for transformational change. This process may entail:



- **Ideation:** Use R&D to identify upstream, and downstream CE business solutions including traditional solutions and “grassroot” innovations and the design of goods and services as well as business models with low environmental impact (e. g. energy efficient, recyclable products, alternatives to single-use plastics).



- **Prototyping:** This includes prototyping new CE business innovation, technology and **models** and proof of concepts to develop MVPs (minimal viable products). Besides large-scale enterprises, this work extends support for tech and digital innovation led by grassroots and SME innovators.



- **Incubation and growth:** Once MVPs and business concepts are developed, UNDP will facilitate business incubation and growth support among others by linking businesses with seed funding, green financing, investments and green procurement.



Aside from the development of CE solutions, CE acceleration also requires **mainstreaming CE solutions into major sectors** like garment, manufacturing, food and beverage (F&B), hospitality, and waste management. This entails supporting these sectors to adopt the following CE measures.

- Sourcing of sustainable resources
- Sustainable and renewable energy (e. g. wind and solar)
- Material and energy efficiency.
- Phasing out single-use plastics to multi-use plastics/alternatives
- Reuse, repair, and refilling
- Waste segregation for CE waste management solutions

UNDP will assist the government in mobilizing **green financing and investments** to accelerate the CE transition and achieve scalable impacts. This entails:

- Mobilising private sector engagement and investments for CE solutions through e. g. EPR,
- Mobilizing domestic, ODA, non-ODA financing, and vertical funds directed towards scaling up proven CE options.

Work With Us

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