

A Review of Circular Economy-related Laws and Policies in the Philippines

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Perspectives, Experiences, and Pathways”

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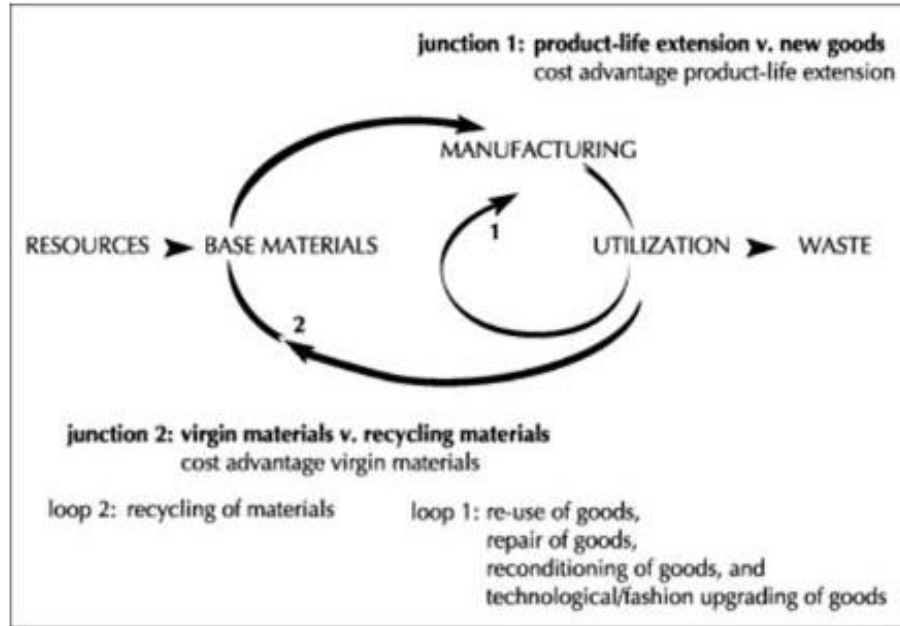
Outline

- I. Characterizing the Circular Economy
- II. A Review of Circular Economy-related Philippine Laws and Policies
- III. Considerations towards a National Framework



I. Characterizing the Circular Economy

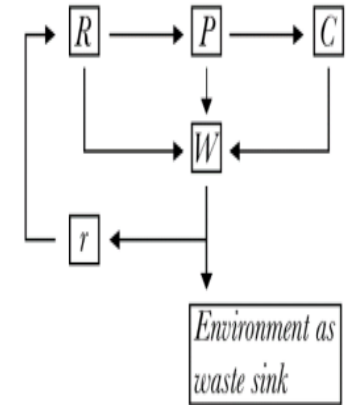
Figure 1. Stahel and Reday's Circular Economy Model



Source: Based on Stahel and Reday, 1981: 70 (figure supplied by Stahel, personal communication, May 2019)

seeks the promotion of a “spiral-loop system that minimizes matter, energy-flow and environmental deterioration without restricting economic growth or social and technical progress” (Stahel 1982: no page numbers) through reuse (loop 1), repair (loop 2), reconditioning (loop 3) and recycling (loop 4).

Figure 2. Circular Economic System



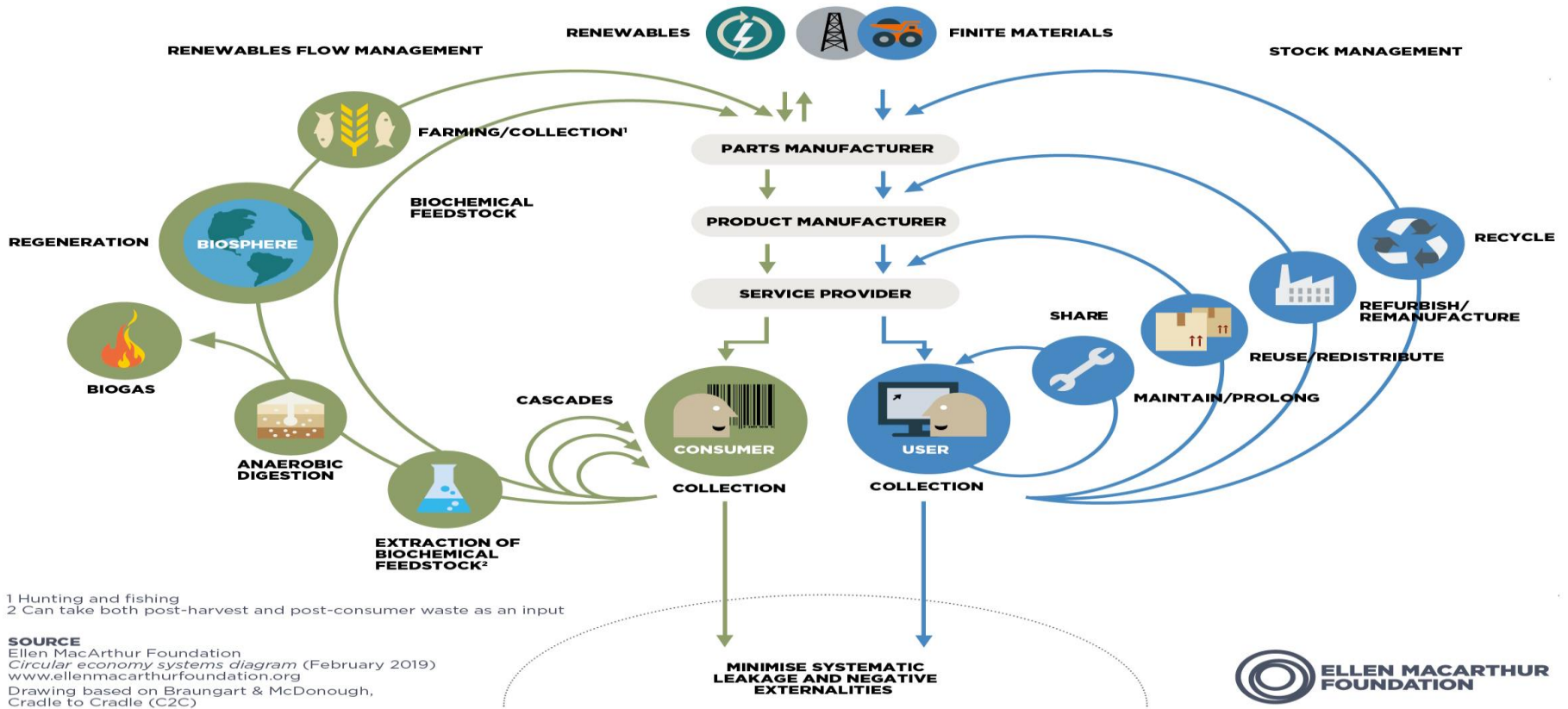
Note: Key: R=resources, P=production, C=consumption, U=utility, W=wastes, r=recycling
Source: Pearce and Turner 1990: 38

“Earth as a closed economic system: one in which the economy and environment are not characterized by linear interlinkages, but by a circular relationship. Everything is an input into everything else.”
(Pearce and Turner, 1990: 37)

*Both figures are lifted from Ekins et al. (2019). “The Circular Economy: What, Why, How and Where”.
<https://www.oecd.org/cfe/regionaldevelopment/Ekins-2019-Circular-Economy-What-Why-How-Where.pdf>

I. Characterizing the Circular Economy

Figure 3. EMF's Butterfly Diagram of the Circular Economy



In the technical cycle, products are kept in circulation in the economy through reuse, repair, remanufacture and recycling. In the biological cycle, the nutrients from biodegradable materials are returned to the Earth, through processes like composting or anaerobic digestion.

Source: <https://ellenmacarthurfoundation.org/circular-economy-diagram>

I. Characterizing the Circular Economy

Figure 4. Circular Economy according to UNCTAD



Source: <https://unctad.org/topic/trade-and-environment/circular-economy>

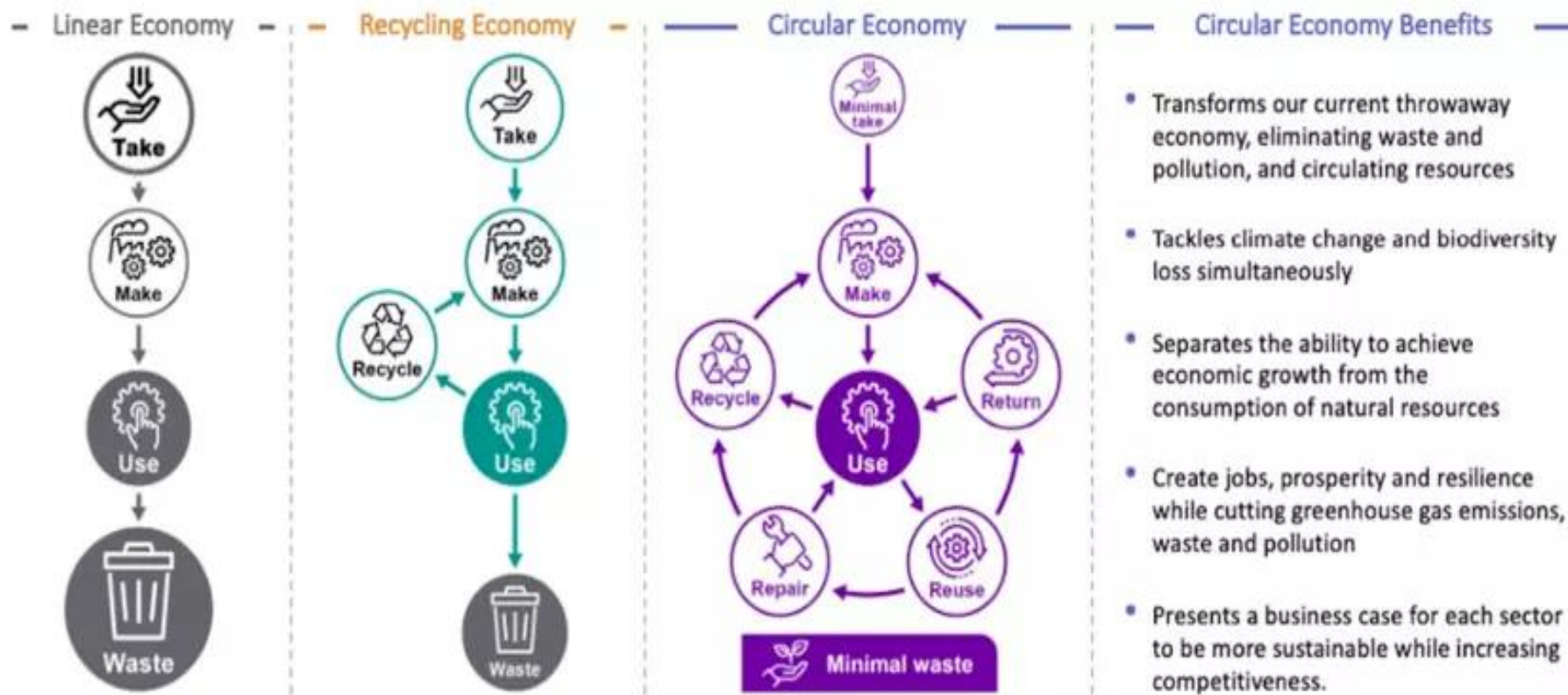
Definitions of CE include:

“A circular economy is an industrial system that is restorative or regenerative by intention and design. ... It replaces the ‘end-of-life’ concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse, and aims for the elimination of waste through the superior design of materials, products, systems, and, within this, business models.”
(EMF, 2013: 7)

“circular economy describes an economic system that is based on business models which replace the ‘end-of-life’ concept with reducing, alternatively reusing, recycling and recovering materials in production/distribution and consumption processes” (Kirchherr et al. 2017: 224-225)

I. Characterizing the Circular Economy

Figure 5. Benefits of Circular Economy according to WEF



Source: <https://www.weforum.org/agenda/2022/01/5-circular-economy-business-models-competitive-advantage/>

In the Philippine context, House Bill 07609 defines circular economy as: “a system approach wherein products are designed for durability, reuse and recyclability, and materials for new products come from old products. It minimizes waste and maximizes the use of natural resources.”

I. Characterizing the Circular Economy

Table 1. Summary of Clusters of Drivers and Barriers

Barrier cluster	Examples of barriers
Governmental issues	Ineffective, insufficient or unsupportive policies; lack of performance indicators; unclear vision
Economic issues	Weak incentives, lack of internalisation of external costs; high upfront costs and insufficient short-term benefits prevents investment; resource-efficient options can be more expensive
Technological issues	Product complexity inhibits separation of materials making recycling harder; challenges monitoring product quality throughout the lifecycle, and maintaining product quality with recovered or remanufactured materials; lack of accurate information in tracking material composition of products to enable recycling and remanufacturing
Knowledge and skills issues	Lack of public information and awareness to support participation in reuse / recycle / remanufacturing; lack of necessary skills in workforce; consumer awareness about refurbished or remanufactured products – perception that quality is lower
Management issues	Lack of interest or leadership on circular economy within firms at management level; higher priority given to other supply chain issues; organisational structures within firms inhibit implementation of CE practices
Circular economy framework issues	Lack of successful business models; complexity of transnational supply chains, including for waste management; tendency to focus on recycling when other CE practices might be more beneficial
Culture and social issues	Lack of good relationships in supply chain; linear technologies and practices deeply rooted; negative customer perceptions of remanufactured products; ‘thrill’ of newness
Market issues	Challenges to operating take-back systems with multiple companies involved, and legal problems for service providers retaining the sold product; lack of standards and variable quality of refurbished products; lack of consumer acceptance of ‘service’ rather than ownership models; remanufacturing requires experience and knowledge

Source: author’s adaptation of Govindan and Hasaganic (2018) Table 5: 296-299.

Driver cluster	Examples of drivers
Policy and economy	Government laws and policies compel firms to act; potential for increased revenues due to increased efficiencies may encourage firms to act
Health	Public and animal health is compromised by pollution – to the extent that CE can reduce pollution it will have health benefits
Environmental protection	Environmental damage is caused by consumption of energy and extraction of the Earth’s resources. To the extent that CE enables the more efficient use of the Earth’s resources it can reduce such damages
Society	CE is required to support increasing population, and increasing urbanisation, sustainably; CE will create jobs; customers increasing knowledge and demands for sustainable products
Product development	CE will improve efficiency of material and energy use in the supply chain; longer lasting products will be higher quality and therefore increase their value

Source: author’s adaptation of Govindan and Hasaganic (2018) Table 3: 288

Source: Ekins et al. (2019). “The Circular Economy: What, Why, How and Where”. <https://www.oecd.org/cfe/regionaldevelopment/Ekins-2019-Circular-Economy-What-Why-How-Where.pdf>

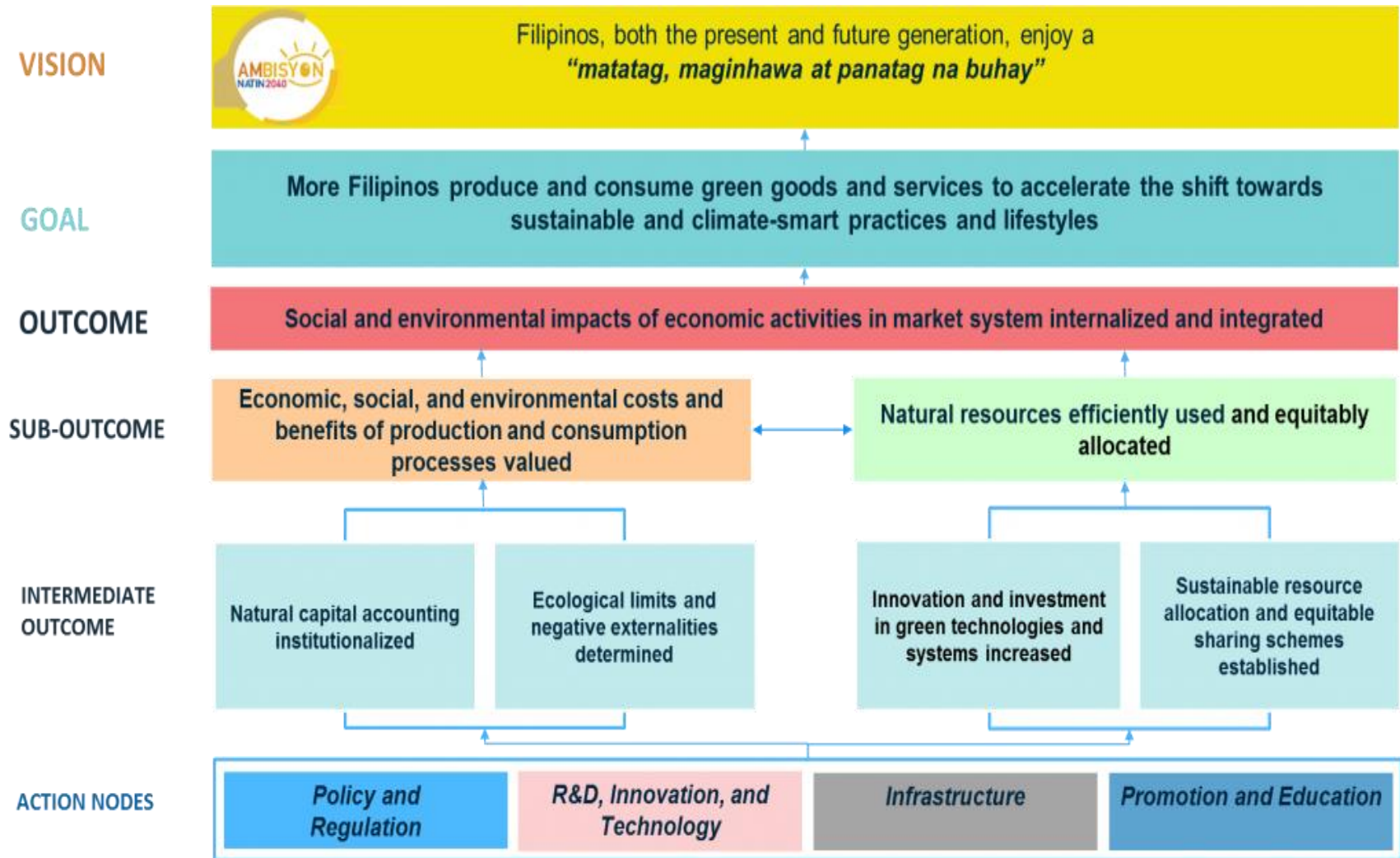


II. A Review of Circular Economy-related Philippine Laws and Policies

POLICY INTERVENTION TYPES	EXAMPLES	POLICY INTERVENTION TYPES	EXAMPLES
EDUCATION, INFORMATION & AWARENESS	Integration of circular economy/systems thinking into school and university curricula	REGULATORY FRAMEWORKS	Government (sector) strategy and associated targets on resource productivity and circular economy
	Public communication and information campaigns		Product regulations, including design, extended warranties and product passports
COLLABORATION PLATFORMS	Public-private partnerships with businesses at national, regional and city level		Waste regulations, including collection and treatment standards and targets, the definition of waste, extended producer responsibility and take-back systems
	Encouragement of voluntary industry collaboration platforms, encouraging value-chain and cross-sectoral initiatives and information sharing		Industry, consumer, competition and trade regulations, for example on food safety
	R&D programmes in the fields of, for example, material sciences and biosystems		Accounting, reporting and financial regulations including accounting for natural capital and resources, and the fiduciary duty of investors and managers
BUSINESS SUPPORT SCHEMES	Financial support to business, for example direct subsidies, provision of capital, financial guarantees		FISCAL FRAMEWORKS
	Technical support, advisory, training and demonstration of best practices to business	Tax shift from labour to resources	
PUBLIC PROCUREMENT & INFRASTRUCTURE	Public procurement		
	Public investment in infrastructure		

Source: EMF (2015) Delivering the Circular Economy: A Toolkit for Policymakers, Ellen MacArthur Foundation, Cowes.

II. A Review of Circular Economy-related Philippine Laws and Policies



Source: <https://sdg.neda.gov.ph/philippine-action-plan-for-sustainable-consumption-and-production-pap4scp/>

II. A Review of Circular Economy-related Philippine Laws and Policies

POLICY INTERVENTION	EXAMPLE/S
EDUCATION, INFORMATION & AWARENESS	<ul style="list-style-type: none"> > Programs of the Philippine Center for Environmental Protection and Sustainable Development, Inc.: Sustainable Diner Project; National Ecolabeling Program (Green Choice Philippines); Kalikasan GP3; Philippine Green Pages > Life cycle analysis courses in the academe (e.g, De La Salle University)
COLLABORATION PLATFORMS	<ul style="list-style-type: none"> > Ecotown Scale-up Project (Global Green Growth Institute (GGGI) and PHL Climate Change Commission) > Promotion of green business practices among MSMEs in food processing industry (GGGI and DTI) > Zero Waste to Nature Ambisyon 2030 by Philippine Alliance for Recycling and Materials Sustainability > Eco-brick projects by Pilipinas Shell and Ayala Land Inc.
BUSINESS SUPPORT SCHEMES	<ul style="list-style-type: none"> > Training programs of Mother Earth Foundation > Zero Carbon Resorts project of EU SWITCH-Asia Programme > Landbank’s Carbon Finance Support Facility

Sources: https://www.adb.org/sites/default/files/project-documents/50158/50158-001-tacr-en_0.pdf; <https://mbc.com.ph/2021/12/02/the-future-of-circular-economy-in-the-philippines/>



II. A Review of Circular Economy-related Philippine Laws and Policies

POLICY INTERVENTION	EXAMPLE/S
PUBLIC PROCUREMENT AND INFRASTRUCTURE	<ul style="list-style-type: none"> > The Philippine Green Public Procurement Roadmap: Advancing GPP until 2022 and beyond
REGULATORY FRAMEWORKS	<ul style="list-style-type: none"> > PD No. 1152 or The Philippine Environment Code of 1977 > RA No. 6969 or The Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 > RA No. 8749 or The Philippine Clean Air Act of 1999 > RA No. 9003 or The Ecological Solid Waste Management Act of 2000 > RA No. 9513 or The Renewable Energy Act of 2008 > RA No. 10068 or the Organic Agriculture Act of 2010 > DOT's Public Utility Vehicle Modernization Program > National Plan of Action on Marine Litter (Draft by DENR) > Philippine Action Plan for Sustainable Consumption and Production (Draft by NEDA) > Sustainable Science and Technology for Solid Waste Management Road Map (Draft by DOST) > Local Ordinances (e.g., Quezon City's regulation on plastic bags)
FISCAL FRAMEWORKS	<ul style="list-style-type: none"> > RA No. 10771 or The Philippine Green Jobs Act of 2016

Sources: https://www.adb.org/sites/default/files/project-documents/50158/50158-001-tacr-en_0.pdf;

<https://www.adb.org/sites/default/files/publication/774936/adbi-transitioning-linear-circular-economy-developing-asia-web.pdf>



II. A Review of Circular Economy-related Philippine Laws and Policies

Table 2. Circular Economy-related Proposed Measures in Philippine Congress (2010-2021)

Year	Plastics	Waste and Waste Management	Circular Economy
House of Representatives			
15th Congress (2010–2013)	21	28	0
16th Congress (2013–2016)	17	33	0
17th Congress (2016–2019)	26	52	0
18th Congress (2019–present)	43	79	2
TOTAL	107	192	2
Senate			
15th Congress (2010–2013)	9	21	0
16th Congress (2013–2016)	7	20	0
17th Congress (2016–2019)	6	12	0
18th Congress (2019–present)	9	30	0
TOTAL	31	83	0

Source: Bueta, G. (2022). Circular Economy Policy Initiatives and Experiences in the Philippines: Lessons for Asia and the Pacific and Beyond. <https://www.adb.org/sites/default/files/publication/774936/adbi-transitioning-linear-circular-economy-developing-asia-web.pdf>



II. A Review of Circular Economy-related Philippine Laws and Policies

Table 2. Circular Economy-related Bills in 18th Philippine Congress (2019-present)

Bill No.	Title	Relevant Provisions
House of Representatives		
House Bill (HB) 103	Plastic Products Regulation Act	Stores to provide consumers with biodegradable plastic products; in-store recovery program; phaseout of nonbiodegradable, nonreusable, and nonrecyclable plastic products; creation of special environmental fund.
HB 546	Single-Use Plastic Products Phase-out Law	Prohibition on the sale, use, manufacture, and importation of SUPs; phaseout plan for SUPs.
HB 635	Single-use Plastics Regulation and Management Act of 2019	Prohibition and phaseout of SUPs; levy on SUP use in the 1-year interim period, discount for consumers; prohibition on SUP imports; recycling of SUPs; research and development for SUP alternatives; incentives for shifting to alternatives.
HB 2396	Ban on Single-Use Plastics Act	Ban on SUPs within 3 years from effectivity; interim charge for use and purchase of SUP.
HB 2969	*No short title	Prohibiting the use of plastics in advertising goods, services, or events, including election propaganda.
HB 3536	Plastic Straws Ban Act	Prohibiting the use of plastic drinking straws in all restaurants, hotels, inns, fast-food centers, eateries, and similar establishments.
HB 4724	Zero Plastics in Tourism Act of 2019	Prohibition on the use and bringing in of SUPs inside tourist sites/destinations; commercial establishments mandated to use alternatives.
HB 5312	Solid Waste Redemption and Recovery Act	Establishing a solid waste redemption and recovery system; incentive for hazardous waste recovery; calls for large-scale system recovery of solid waste.
HB 5383	Straw Regulation Act	Regulating the use, recovery, collection, and disposal of plastic drinking straws in commercial establishments and in prepacked beverages; plastic straws to be given only upon request by customer; formulate design for environmentally sustainable pre-packed beverages; provides for a straw-free seal program.
HB 6180	*No short title	Mandating all commercial establishments and manufacturing companies to maintain a system of recovery, collection, recycling, and disposal of plastic and other nonbiodegradable materials; system part of corporate social responsibility.
HB 6744	Recyclable and Biodegradable Packaging Act of 2020	Mandating the use of recyclable or biodegradable materials for the packaging of consumer products; incentives for entities that comply.
HB 7309	*No short title	Prohibits the importation of plastic waste, whether recyclable or otherwise.
HB 9147	Single-use Plastic Products Regulation Act	This is the consolidated bill approved by the Committee on Ecology that serves as substitute for the related measures.
HB 9171	Plastic Bags Tax Act	Provides for an amendment to the tax code to levy a tax on plastic bag use.

Source: Bueta, G. (2022). Circular Economy Policy Initiatives and Experiences in the Philippines: Lessons for Asia and the Pacific and Beyond. <https://www.adb.org/sites/default/files/publication/774936/adbi-transitioning-linear-circular-economy-developing-asia-web.pdf>



II. A Review of Circular Economy-related Philippine Laws and Policies

Since 2010, Bueta (2022) observes the following points regarding the country's legal and policy frameworks on circular economy:

- Current and existing laws and policies provide adequate justification to push for specific circular economy policies and regulations;
- Piecemeal and ad hoc approach to addressing waste management issues and promoting a circular economy;
- Proposals tend to be reactive to current events and “flavor of the times”;
- No adequate follow-through on proposals due to a lack of action taken by the government and legislators, extending to civil society; and
- No serious momentum driving forward the transition to a circular economy, but recent EPR proposals could be a crucial starting point.

Sources: Bueta, G. (2022). Circular Economy Policy Initiatives and Experiences in the Philippines: Lessons for Asia and the Pacific and Beyond.
<https://www.adb.org/sites/default/files/publication/774936/adbi-transitioning-linear-circular-economy-developing-asia-web.pdf>



III. Considerations towards a National Framework

- The passage of HB 7609 or the Philippine Circular Economy Act is a welcome development since it seeks to attain the following: develop green markets through measures advancing circular economy and sustainable consumption and production; promote permaculture for both rural and urban development; and foster a just, inclusive, and sustainable green recovery from the pandemic.
- Nevertheless, the Philippine government may review the formulation and implementation of a National Framework on Circular Economy to facilitate the harmonization of existing (and dispersed) initiatives and programs involving several stakeholders across various levels.



III. Considerations towards a National Framework

- In crafting a National Framework, the government may consider the following points:
 - Mainstream a multilevel system of governance by categorizing programs, projects, and activities into micro (households and firms), meso (eco-industrial parks/industrial symbiosis), and macro (city/regional). China's 'experimentation under hierarchy' model may be examined;
 - Identify specific circular economy indicators that account for unique Philippine conditions. Hence, the proposed National Natural Capital Accounting or Environment and National Resource Accounting and Assessment Plan may play a vital role.;
 - Develop a circular economy monitoring framework (see OECD) to track the progress of the government in mainstreaming principles and practices related to circular economy.

III. Considerations towards a National Framework

- Incorporate smart regulation to nurture partnerships among the public sector agencies, businesses, and commercial or non-commercial third parties.;
- Enforce the Extended Producer Responsibility (EPR) policies and the Polluter Pays Principle;
- Determine the most beneficial timeframe for a national plan: 5-year, 6-year, 8-year, 10-year, etc.; and
- Use of digital technologies to increase awareness about circular economy among the public, especially MSMEs and the informal sector.



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