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EXTENDED PRODUCER RESPONSIBILITY OPTIONS FOR PACKAGING IN THE PHILIPPINES

October 2022



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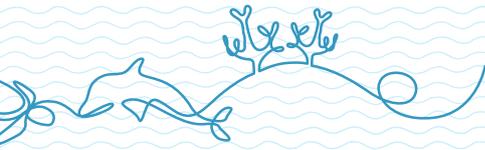


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Executive Summary

The Report is part of the project entitled “**Rethinking Plastics – Circular Economy Solutions to Marine Litter**”. It supports the transition towards a circular economy for plastics and sustainable plastic consumption and production in the Philippines and other East and Southeast Asian countries to contribute to a significant reduction of marine litter. The project aims to implement advisory services and pilot projects in close cooperation with regional, national and local partners. The project is funded by the European Union and the German Federal Ministry for Economic Cooperation and Development (BMZ). It is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and Expertise France.

This Report examines Extended Producer Responsibility (EPR) within the context of the Philippines. In particular it will look at existing legal and policy frameworks and propose EPR options for applicable packaging types. This takes place at a time when EPR implementation is set to take place with the enactment of **Republic Act (RA) No. 11898, or the EPR Act of 2022**.

The Report begins with an examination of the EPR-related legislation and measures of selected countries. This is followed by a discussion of the current legal, policy, and institutional landscape on waste management in the Philippines, including the recently enacted EPR law. The Report’s framework of analysis will then be presented, including several enabling conditions for EPR success in the country. It concludes with a presentation of the recommended options for EPR schemes for different types of plastic packaging.

Legal, Policy, and Institutional Framework on EPR in the Philippines

Philippine environmental laws – including those on waste management – can be generally characterized as having been in line with global and international developments, especially as compared with its other ASEAN regions. Aside from early support for global environmental treaties and declarations, the country quickly enacted legislation to address urgent and emerging environment – and in recent years, climate – issues and challenges. The Philippines is a party to major multilateral environmental agreements (MEAs), including giving priority to regional cooperation on waste management and plastic pollution issues. The Philippines has also been actively campaigning for the enactment of a global treaty on plastics.

On the national front, the 1987 Philippine Constitution provides the foundation for environmental law and rights in the country. The document is also replete with provisions which provides for a robust framework for environmental constitutionalism in the Philippines. In support of these, the Philippine legal and policy landscape on waste management can be characterized as one having the basic foundations in place for an overall framework for waste management. It has laws, regulations and policies which cover, among others: i) solid waste management; ii) hazardous wastes and additives; and iii) “greening” industries.

The above environmental laws and rights are supported by an institutional framework from the national to the local level. Led by the Department of Environment and Natural Resources (DENR), through the National Solid Waste Management Commission (NSWMC), national-level agencies perform various tasks and functions in support of local government units who are given the primary mandate for implementing waste management laws. The different tasks can include policy making and governance; regulatory compliance; and voluntary actions.

There has been increasing dialogue and study into waste management laws and policies in the Philippines, which includes those on circular economy concepts and EPR. A recent analysis noted that 415 bills and/or resolutions were filed in Congress from July 2010 to January 2022 on plastics, waste and waste management, and circular economy. A significant development in the on-going dialogue is the enactment of the EPR Act of 2022, which lapsed into law last 22 July 2022. The law defines EPR as “...*the environmental policy approach and practice that requires producers to be environmentally responsible throughout the lifecycle of a product, especially its post-consumer or end-of-life stage.*” It provides for the development of a National Framework for EPR. It outlines mandatory measures for obliged enterprises which include collection and diversion targets; types of plastic packaging covered; compliance periods; and audits. It also identifies fiscal and non-fiscal incentives, as well as penalties for non-compliance.

The existing legal framework summarized above can support the establishment and operationalization of EPR in the country under the new law. One strength is that this framework provides for the **policy and institutional “backbone” or foundation for an EPR system**. The institutional framework discussed above also provides for the possible delineation of responsibilities of government instrumentalities in an EPR scheme. **Increasing awareness and understanding of EPR** among various stakeholders is also proving beneficial. This is leading to **different solutions being explored and offered** – ranging from using new and innovative technologies to community-based schemes and programs. On the other hand, the oft repeated challenge in the Philippines, and one which is a critical weakness for EPR, is the **poor implementation and enforcement of waste management laws**. This may be a result of a **lack of coherence in national policies and programs** which impact the environment sector.

One opportunity to be harnessed is the **broad awareness and consciousness of the plastic crisis, along with EPR** as one of the viable solutions. **Rising private sector support** can also be harnessed towards EPR success. However, one immediate threat to EPR success is the **lack of, or waning political will to push for the system** despite the mandatory law, and to address waste management issues in general. **Many gaps in the current waste management system**, and some specifics for the EPR system will need to be identified by policy makers as the finer details of the EPR Law are crafted.

EPR Options for Packaging

Taking into account the current legal, policy, and institutional landscape provides the backdrop for discussing possible EPR options for packaging. The recommended schemes and mechanisms can be used in developing guidance under the National EPR Framework and the Implementing Rules and Regulations (IRR) of the law.

Numerous countries have enacted EPR legislation and these provide significant insights in developing and implementing EPR policies in the Philippines. A scoping done by this Report shows that a critical first step for the covered countries is the **enactment of mandatory EPR legislation**. This provides the overall framework by which government and obliged companies fulfill their tasks and responsibilities. The **specific measures vary per country**, with some similarities. **Plastics are generally covered under EPR schemes** along with other products. However, it is noted that **upstream measures are often still lacking or are under early stages of development**.

The Report recommends that within the context of the mandatory EPR law, **several critical enabling conditions need to be met** before rolling-out the proposed schemes, to ensure the success of EPR implementation in the Philippines. These enabling conditions include:

- Strengthening downstream measures and ensuring a fully functioning waste management system;
- Supporting a paradigm shift by instituting and enacting upstream measures;
- A clear and effectively implemented mandatory EPR system; and,
- Suitably defined stakeholder roles and responsibilities.

Along with these enabling conditions, several elements which need to be considered for a successful EPR scheme have been taken into account within the Philippine context. The report identifies recommendations for an initial classification of plastic waste, analyzed and discussed based on these elements. The initial classification of plastic waste was made considering the following:

- Plastic wastes that have been identified as those of concern in the Philippines;
- Types of plastic and waste which are generally covered in EPR schemes of other countries, with appropriate and available technologies;
- Plastics that have been covered in recently proposed EPR laws and policies; and,
- Recent studies and reports which have looked at waste management, EPR, and circular economy in the Philippines.

It should also be noted that **the proposed schemes per type of plastic packaging assumes that the enabling conditions for EPR (discussed above) have been met and are being fully and properly implemented.** For each classification of plastic waste, specific recommendations as to the following were identified: i) Taxes and fees; ii) Incentives; iii) Product redesign; iv) Bans and Phase-outs; v) Collection, Reduction, and Recycling Targets; vi) Processing and Disposal Facilities and Technologies; and, vii) Voluntary Mechanisms

The table below summarizes the proposals for each plastic type covered:

Plastic Waste Type	Summary of Measures
Plastic Bags (Polymer Bags and SUP Bags)	<ul style="list-style-type: none"> • Taxes and/or fees paid by obliged companies • Incentives for product re-design, collection/take-back schemes; consumer incentives • Phase-out with clear timeframe and targets • Progressive collection/diversion and recycling targets • Co-processing under strict conditions; final disposal
Food Packaging, PET Bottles, and SUPs (Polystyrene, Plastic Utensils, Take-out containers and other rigid plastic packaging)	<ul style="list-style-type: none"> • Taxes and/or fees paid by obliged companies and/or consumers for use • Incentives for product re-design, collection/take-back schemes; consumer incentives • Phase-out of certain types with clear timeframe and targets; others for reduction targets • Progressive collection/diversion and recycling targets (with a view to phase-out) • Strict recycling for high value and recyclable plastics; obliged companies to establish facilities
Flexible Plastic Packaging (including sachets, and other single-layer and multi-layer packaging)	<ul style="list-style-type: none"> • Taxes and/or fees paid by obliged companies • Incentives for product re-design and non-use of SUPs • Phase-out of unnecessary packaging with clear timeframe and targets • Progressive collection/diversion and recycling targets (with a view to phase-out) • Co-processing under strict conditions; final disposal

Several cross-cutting actions and measures for the different types of plastic packaging must also be considered for the success of the proposed EPR schemes. The **involvement of informal waste sector** and ensuring their integration into existing waste management systems should be a priority. **Mandatory eco-labeling** and providing **progressive targets** should be outlined. Efforts should be made to **avoid and prevent greenwashing**. **Careful study** on the following should be conducted: i) determining taxes, EPR fees, and incentives; ii) appropriate use of bans and phase-outs; iii) alignment of efforts with product redesign; and iv) ensuring effective data management, auditing and monitoring; and v) employing appropriate recycling and disposal technology.



I. INTRODUCTION

The Report is part of the project entitled “*Rethinking Plastics – Circular Economy Solutions to Marine Litter*”. It supports the transition towards a circular economy for plastics and sustainable plastic consumption and production in the Philippines and other East and Southeast Asian countries to contribute to a significant reduction of marine litter. The project aims to implement advisory services and pilot projects in close cooperation with regional, national and local partners. The project is funded by the European Union and the German Federal Ministry for Economic Cooperation and Development (BMZ). It is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and Expertise France.

This Report examines Extended Producer Responsibility (EPR) within the context of the Philippines. In particular, it will look at existing legal and policy frameworks and propose EPR options for applicable packaging types. This takes place at a time when EPR implementation is set to take place with the enactment of **Republic Act (RA) No. 11898, or the EPR Act of 2022**.

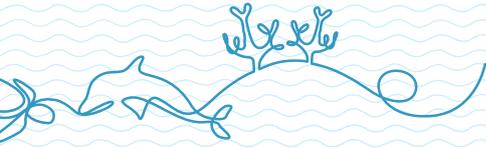
A. Methodology

The Report conducted extensive desk research on EPR policies and legislation in select regions and countries around the world. This included information on types of packaging covered, specific schemes and programs used to implement EPR, and models and best practices for Producers Responsibility Organizations (PROs) and Registers. An analysis of EPR relevant and related laws in the Philippines was also conducted, including the EPR Act of 2022. Included are the identification and consideration of gaps and barriers to EPR and improved overall waste management.

Consultations, key informant interviews and discussions were also conducted with select local and international experts. Recent studies related to EPR, waste management, and circular economy in the Philippines were also assessed, providing a glimpse of the current state of knowledge on EPR in the country. A public dialogue was also held, with panel discussion of international waste management and EPR experts, to gather further comments and recommendations on the report.

B. Report Structure

The Report begins with an examination of the EPR-related legislation and measures of select countries. This is followed by a discussion of the current legal, policy, and institutional landscape on waste management in the Philippines, including the recently enacted EPR law. The Report’s framework of analysis will then be presented, including several enabling conditions for EPR success in the country. It concludes with a presentation of the recommended options for EPR schemes for different types of plastic packaging.



II. SCOPING GLOBAL EPR LEGISLATION

Many countries around the world have used EPR as one of the tools within their waste management arsenal – in particular to deal with plastic waste. There has been a growing trend of exploring and giving greater responsibility among producers and manufacturers for the end-of-life of their products, or alternatively giving new life to these through reuse and recycling. Countries in the developing world, including those in Southeast Asia (among them the Philippines) have in recent years recognized EPR as a viable policy to cope and deal with increasing waste, particularly that of plastic products.

This section will survey EPR laws and policies from select countries, looking at various types of packaging covered and the measures used in the system. The countries were selected to present a sampling from both developed and developing countries in different regions. It also considered the extent of existing EPR legislation and policy, or the robustness of dialogues and studies on EPR as can be seen from various research, fora, and the opinion of experts.

The countries covered include the following: France, Germany, UK, Canada, South Korea, Japan, Indonesia, Vietnam, Norway and Australia. The types of packaging covered are, among others:

- PET Bottles
- Glass bottles
- Other plastic packaging
- Corrugated cardboard
- Steel and aluminum cans
- Paper cartons
- Other composites

The types of measures that were analyzed are:

- Segregation
- Mandatory recycling/take back
- Minimizing single-use plastics (SUPs)
- Ban on SUPs
- Labelling
- Product re-design and increased use of environmentally friendly materials
- Re-use/Deposit schemes/Return and earn
- Local waste fees
- Plastic packaging tax
- Registration and/or Reporting

The section will then conclude with an analysis of some trends in EPR laws and policies which are relevant for countries considering EPR, or implementing EPR at the early stages such as the Philippines.

A. Survey of Current EPR Legislation from Select Countries

As noted above, numerous countries have put in place EPR measures for various types of packaging, and have employed a range of measures to achieve intended waste reduction targets. These are summarized in **Tables 1.1 and 1.2** below.

	PET Bot- tles	Glass bottles	Other plastic packaging (plastic wrapping for food and beverages and secondary packaging for other products)	Corrugated cardboard	Steel cans	Aluminum cans	Paper cartons	Other com- posites
France	YES	YES	YES	YES	YES	YES	YES	YES
Germany	YES	YES	YES	YES	YES	YES	YES	YES
United King- dom	YES	YES	YES	YES	YES	YES	YES	YES
Canada	YES (in select provinces only)	YES (in certain provinces only)	YES (in certain provinces only)	/ (in certain provinces only)	/ (in certain provinc- es only)	/ (in certain provinces only)	/ (in certain provinces only)	/ (in certain provinc- es only)
South Korea	YES	YES	YES	YES (general paper pack- aging)	YES (metal cans in general)	YES (met- al cans in general)	YES (gen- eral paper packag- ing)	/
Japan	YES	YES	YES	NO (but other types of paper pack- aging are included)	NO	NO	NO (but other types of paper packag- ing are included)	NO
Vietnam	YES	YES	YES	YES	YES	YES	YES	YES
Indonesia	YES	/	YES	/	/	/	/	YES
Norway	YES	YES	YES	YES	YES	YES	YES	YES
Australia	YES	/	YES	/	/	/	/	/

Table 1.1 - EPR Legislation according to Type of Packaging

YES - EPR legislation focuses or covers the type of packaging specifically

NO - EPR legislation does not cover the type of packaging

/ - Provisions in the EPR legislation cover more GENERAL types of packaging, but MAY cover this type of packaging material

	Segre- gation	Man- datory recycling/ take-back schemes	Mini- mizing SUPs	Ban on SUPs	La- bel- ing	Product redesign, increased use of environmen- tally friendly materials	Re-use/ Deposit scheme/ Return and earn	Local waste fees	Plastic Pack- aging Tax	Regis- tration and/or Report- ing
France	YES	YES	YES	Target is by 2040	YES	Incentives given (lower license fees) for use of packaging that can easily be recycled or contains recy- cled material or renewable raw materials	Planned in law, not en- forced	YES	-	YES

Germany	YES	YES	YES	YES	YES (Voluntary)	Incentives given (lower license fees) for use of packaging that can easily be recycled or contains recycled material or renewable raw materials	YES	-	-	YES
United Kingdom	YES	YES (in proposed legislation)	YES	Ban is only in Scotland, planned for the rest of UK	-	-	YES (Scotland only)	YES (in proposed legislation)	YES	YES
Canada	In certain provinces	In certain provinces	In certain provinces	-	-	-	In certain provinces	-	-	-
South Korea	YES	YES	YES	-	-	-	YES	YES	-	YES
Japan	YES	YES	-	-	YES	-	-	YES	-	-
Vietnam	YES	YES	YES	-	-	-	-	YES	-	YES unless producer opts to pay VEPF
Indonesia		YES	YES	-	-	YES	-	-	-	-
Norway	YES	YES	YES	-	-	YES	YES	-	-	YES
Australia	YES	YES	YES	Target is by 2025	-	-	-	-	-	YES

Table 1.2 - EPR Legislation according to Measures

As can be seen from the survey above many other countries have already implemented EPR schemes on different scales. In the EU, most of its member-states have already established stringent EPR measures, many of which mainly focus on reducing plastic waste. France, for example, is one of the EU's most innovative countries when it comes to environmental legislation. Through its *French Anti-Waste Law for a Circular Economy*, the country has pushed for a progressive ban on additional single-use plastic (SUP) products, with a target of fully banning SUPs by 2040. The country has also put effective measures on environmental labeling, collecting, segregating, and recycling into place—all with the active participation of both the government and private stakeholders. The success of France's EPR system has been attributed to this drive from the producers, coupled with government scrutiny.

Producers are generally financially responsible for waste management activities, but stakeholders such as waste treatment operators, municipalities, and consumers also play important roles for the EPR scheme to work.

In Australia, significant EPR policies are the *National Environmental Protection Measure (Used Packaging Materials) 2011* and *Plastic Reduction and Circular Economy Act*. In the country, EPR seems to be used interchangeably with the term "Product Stewardship." Similar to France's EPR scheme, Australia has also set waste reduction targets, but specifically for packaging. By 2025, the Australian Packaging Covenant Organization (APCO) targets 100% of packaging to be reusable, recyclable, or compostable, with 70% of plastic packaging being recycled or compostable by the same year.

In addition, Australia has also adopted an approach that gives producers ample control over their plan of action. Businesses regulated under the PRCE Act are required to comply with certain stewardship requirements or targets, prepare action plans, and provide financial assurance to secure funding for implementing actions needed to meet product stewardship targets.

On the other hand, despite legislating on packaging recycling earlier than many other countries, there are no set targets for collection and recycling rates, but producers are financially responsible for recycling the waste of glass bottles, PET bottles, other plastic packaging which are collected and properly sorted by municipalities.

Japan also puts a premium on ecological design and labeling. The country has pushed for the introduction of thin and lightweight products, products with no aluminum lining, flexible packaging, and changes in materials.

However, even with several legislations around the world, one significant observation is that their ***EPR schemes tend toward broadness***, in most cases due to lack of discrimination between materials. Although plastic packaging is sometimes indicated in a law to be as specific as ‘PET bottles’ or ‘SUPs,’ generally, all kinds of plastic packaging are still lumped into one category and under the same type of scheme or measure. This may be said to be counterproductive to what EPR hopes to achieve as the materials present in certain kinds of plastic packaging must still be considered. ***Many countries have also chosen to focus on downstream solutions when upstream solutions are just as important.*** As much as producers have the responsibility of doing their part in collecting and recycling the plastic that they produce, it may be helpful as a long-term solution for legislators to include provisions on several upstream measures such as labeling and design requirements as well.

It should also be noted that ***EPR schemes that work in some countries may not necessarily work for others given the differing needs and circumstances of every country.*** In a developing country like the Philippines, many of the EPR measures implemented in developed countries might not be feasible in the short or medium term, and would require a long-term outlook. For example in France, the government has gone as far as installing more water fountains around the country just to lessen the need for consumers to buy drinks in plastic bottles. However, this kind of solution will not work in the Philippines or similarly-placed countries where there is low consumer confidence in tap water driving plastic water bottle sales.

Some EPR systems in other countries also presume that there is already an efficient waste management system involving the strict segregation and processing of waste—but such is not the case in the Philippines, especially in rural areas and outside of the main cities. Ultimately, for EPR to be just as successful in the Philippines, mirroring the efforts of other countries will not be enough. The legislation will need to be tailored according to the context of the country, where plastic packaging involves tiny plastic packets and sachets—the kinds of plastic that are not as prominent in developed countries.

B. Trends and Observations

Based on the above scoping and discussions, this section will present several trends and observations as regards the global state of EPR legislation and policies. These can serve as lessons for the Philippines and other developing countries in the development and implementation of EPR.

Mandatory laws and policies have been in place and are being implemented

In almost all the countries surveyed above, mandatory EPR laws and or policies have been enacted (either through stand-alone laws or as part of wider waste management laws). These provide for critical elements for the success of an EPR system. Clear responsibilities and roles have been set-out among stakeholders – which includes the operationalization of the system through a PRO or a designated entity. There is clarity as to how obliged companies are to comply with the law and implement the EPR system, particularly as regards the PRO and collection and use of EPR fees. Data management and an accessible registry are in place.

Targets on collection, recycling and recovery as well as waste reduction and recyclability have also been provided with clear timeframes for compliance. This includes the banning or phase-out of some products like SUPs. There is also clarity on the role of national and sub-national (local) government agencies, particularly on monitoring compliance with the legal mandates and the operationalization of overall waste management requirements.

Plastics generally covered along with other recyclable materials

Plastics are the products most covered by packaging EPR schemes in most of the countries surveyed – reflecting the global importance placed on tackling the plastic pollution crisis. PET bottles and food packaging are the ones generally covered, with varying EPR schemes and methods. Other products covered include glass, aluminum, beverage cartons, paper and corrugated cardboard (other, less frequently encountered materials such as wood and terra-cotta). Some countries have also established EPR mechanisms for waste electrical and electronic equipment, batteries and many other products.

Measures vary according to country contexts

Specific measures and schemes per country to implement EPR vary. This is important in recognition of the need to address waste issues within the country context. Aside from mandatory laws delineating responsibilities, some of the common measures include mandatory take back and recycling; minimizing and regulating SUPs; providing for local waste fees; and systems for registration and reporting. Other measures include mandatory communication and education programs or R&D programs to be carried out by the PROs, or measures to be directly fulfilled by producers for labelling, product design, and minimum recycled content.

In terms of the set-up and operationalization of the PRO, most countries have instituted mandatory, multiple, decentralized systems, while some allow for voluntary establishment of one. These for-profit or not-for-profit entities are tasked with covering the cost of handling and recycling covered products; or in some cases the operationalization and management of the EPR system.

Although less common, in some countries, designated EPR fees directly goes to the cost of operating the system, either through the own facilities of the PRO or as payments to WMOs or other responsible entities (e.g., local governments). As for government's role, national level agencies are mandated with monitoring compliance, enforcing provisions, and maintaining registries; while local governments are sometimes direct recipients of EPR funds, depending on the processes and procedures in place, and the role assigned to such local government in relation to waste collection and sorting.

Upstream measures are present in some countries

Upstream measures – or those which seek to reduce plastic use and consumption, or push for product redesign – are present in several countries. The EU and India in particular have imposed a ban or phase-out on SUPs or other types of plastics. Mandatory labelling is imposed in France and those in use are voluntary or private sector-led initiatives.

Chapter Overview and Key Points:

- Philippine environmental laws have generally been in step with global and international developments. Aside from early support for global environmental treaties and declarations, the country moved quickly to enact legislation to address urgent and emerging environmental issues and challenges.
- The Philippine legal and policy landscape on waste management can be characterized as one having the basic foundations in place for an overall framework for waste management.
- The institutional framework for waste management in the Philippines defines functions of the different agencies involved policy making and governance, regulatory compliance; and, voluntary actions.
- A SWOT analysis of the legal, policy, and institutional framework in the Philippines shows that although there are strengths and opportunities which have made an EPR law possible, weaknesses in the overall waste management system and emerging threats must be taken into account.



III. GENERAL OVERVIEW OF THE PHILIPPINE WASTE MANAGEMENT LEGAL AND POLICY LANDSCAPE

This section will review the Philippine legal, policy, and institutional landscape on waste management, in particular the related legislation to EPR, including the recently enacted EPR Act of 2022. The section will begin with an overview of international and regional efforts which the Philippines is a party to or supports. This will be followed by the discussion on national laws and policies, and its related institutional framework.

A. International and Regional Efforts

Philippine environmental laws have generally been in step with global and international developments, perhaps even more so than other countries in the region. Aside from early support for global environmental treaties and declarations, the country moved quickly to enact legislation to address urgent and emerging environmental issues and challenges.

The Philippines is a party to major multilateral environmental agreements (MEAs), and has been actively involved in the negotiations and continuing implementation of the same. The MEAs most relevant to EPR and waste management include, among others:

- The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal;
- The United Nations Convention on Biological Diversity;
- The United Nations Convention on the Laws of the Sea;
- The 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention); and,
- The 1973 International Convention for the Prevention of Pollution from Ships (MARPOL).

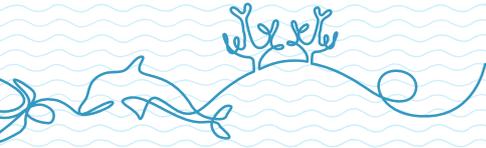
The Philippines has also supported the enactment of a global treaty on plastics, and has participated in the negotiations for this instrument following the United Nations Environment Assembly 5.2.

Regional cooperation on waste management and plastic pollution issues has also been a priority for the Philippines. Along with its ASEAN and regional neighbors, the country has supported declarations, actions plans, and programs such as:

- The ASEAN Joint Declaration on Hazardous Chemicals and Wastes;¹ Management and Working Group on Coastal and Marine Environment;²

¹ ASEAN Joint Declaration on Hazardous Chemicals and Waste Management (26 April 2017) https://asean.org/wp-content/uploads/2017/11/Annex-2_Joint-Declaration-HCWM-Adopted-by-AMME.pdf

²ASEAN Cooperation on Coastal and Marine Environment.” <https://environment.asean.org/awgcm/>



- ASEAN Bangkok Declaration on Combating Marine Debris in the ASEAN Region and Regional Action Plan for Combating Marine Debris 2021-2025;³
- The East Asian Seas Action Plan; and,
- The Coordinating Body for the Seas of East Asia (COBSEA) Regional Action Plan on Marine Litter.⁴

B. Legal and Policy Framework on Waste Management in Relation to EPR

1. National Policy Frameworks

Environmental rights in the Philippine Constitution are enshrined in Section 16, Article II of the 1987 Constitution.⁵ Under this provision, the State is called on to protect and preserve the environment for current and future generations. It recognized the principle of intergenerational equity, recognizing the right of generations yet unborn to a clean, healthy, and safe environment. Other provisions support this robust framework for environmental constitutionalism in the Philippines,⁶ which are further actualized in specific environmental laws.

A recent report notes that the Philippines has a very comprehensive set of national policies on solid waste management and pollution.⁷ The succeeding section will provide a brief presentation and analysis of the Philippine legal and policy framework on waste management, specifically in relation to EPR. This will cover relevant action plans and strategies, followed by laws and regulations on solid waste management, hazardous waste and additives, and “greening” industries. The EPR Act of 2022 officially institutionalizing EPR in the country. Salient provisions of this new measure are summarized in the latter part of this section.

The National Policy Framework contains action plans and strategies which provide overall guidance and a broader approach, which are then implemented through laws and issuances on i) solid waste management; ii) hazardous wastes; and iii) “greening” industries.

1. Action Plans and Strategies

³Bangkok Declaration on Combating Marine Debris in the ASEAN Region (22 June 2019) <https://asean.org/bangkok-declaration-on-combating-marine-debris-in-asean-region/>; and *ASEAN Regional Action Plan for Combatting Marine Debris in the ASEAN Member States* (Jakarta: ASEAN Secretariat 2021) https://asean.org/wp-content/uploads/2021/05/FINAL_210524-ASEAN-Regional-Action-Plan_Ready-to-Publish_v2.pdf

⁴<https://wedocs.unep.org/handle/20.500.11822/30162>

⁵“The State shall protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature.”

⁶See generally Bueta, Gregorio Rafael. (2022). *On the Shoulders of A Legal Giant: Father Bernas and Philippines Environmental Law*. Ateneo Law Journal Special Issue.

⁷See Coordinating Body on the Seas of East Asia (2021). *Legal and Policy Guidance on Addressing Marine Litter in the Philippines: Gap Analysis and Needs Assessment*. Bangkok: United Nations Environment Programme.

a. National Solid Waste Management Strategy (NSWMS) 2012-2016

The National Solid Waste Management Strategy was completed in 2012, and has not been updated, even after its lapse in 2016. The strategy outlined seven components and identified cross-cutting issues, as follows:

- Bridging policy gaps and harmonizing policies;
- Organisational development and enhanced inter-agency cooperation;
- Sustainable Solid Waste Management financing;
- Support for knowledge management on technology, innovation and research;
- Creation of economic opportunities;
- Compliance, monitoring, enforcement and recognition;
- Capacity development, social marketing and advocacy; and
- Cross-cutting issues, including good governance, care for vulnerable groups and reduction of disaster and climate risks (DENR-EMB, 2016).

b. Philippine Development Plan (PDP) 2017-2022

A newly-elected administration crafts Medium-Term Development Plans (MTDP), to guide planning and programming to support their overall economic agenda. As of this writing, the Marcos Administration has announced that it is targeting to release its MTDP by end of 2022.

The previous PDP identified targets toward ensuring ecological integrity, and a clean and healthy environment, including by increasing the solid waste diversion rate by 80 percent by 2022, and increasing the percentage of healthcare waste managed by 100 percent within the same period. To achieve these, priority actions included strengthening enforcement and monitoring of environmental regulations, adoption of pollution abatement solutions, and implementing sustainable consumption and production.

c. National Plan of Action on Marine Litter (NPOA-ML)

The NPOA-ML is expected to serve as a blueprint to enhance the country's efforts to control leakage of waste into bodies of water. Its general goal is to achieve zero waste in Philippine waters by 2040, with Programmatic and Cross-Cutting actions, as follows:

Programmatic Cluster of Actions:

- Establish science- and evidence-based baseline information on marine litter
- Mainstream circular economy (CE) and sustainable consumption and production (SCP) initiatives
- Enhance recovery and recycling coverage and markets
- Prevent leakage from collected or disposed waste
- Reduce maritime sources of marine litter
- Manage litter that is already existing in the riverine and marine environments

Enabling/Cross-cutting Cluster of Actions:

- Enhance policy support and enforcement for marine litter prevention and management
- Develop and implement strategic and targeted social marketing and communications campaigns using various media
- Enable sufficient and cost-effective financing and other institutional resource requirements for the implementation of the NPOA-ML

The NPOA-ML was approved in 2021 and is set for implementation by various government agencies and instrumentalities.

d. Sustainable Science and Technology for Solid Waste Management Roadmap

The development of this Road Map was spearheaded by the Department of Science and Technology, particularly the Philippine Council for Industry, Energy, and Emerging Technology Research and Development. It envisions a circular economy with a solid waste pollution-free environment, and outlines guideposts for how science and technology can support research and development and the enforcement of guidelines and standards. Full implementation of this plan is currently pending.

e. Philippine Action Plan for Sustainable Consumption and Production (PAP4SCP)

The Action Plan serves as a guiding framework to influence and steer sustainable behavior and practices towards the production and consumption of green goods and services, and shift towards sustainable and climate-smart practices and lifestyles.⁸

The PAP4SCP's priority programs include the institutionalization of Natural Capital Accounting and a National Eco-Labeling Program. An EPR law is also identified as one of the priority legislation to achieve the plans goals.

f. Sustainable Finance Roadmap

The development of this Roadmap was spearheaded by the Department of Finance, and it was launched in 2021. It is intended as the Philippines' masterplan for formulating green and sustainable policies to raise the capital and investments needed in reducing the country's GHG emissions while still increasing its economic output.

It seeks to address policy and regulatory gaps in the following areas:

- Promoting sustainable investments through finance;
- Implementing sustainable government initiatives;
- Facilitating investments in public infrastructure; and,
- Developing projects that promote sustainable financing in the Philippines.

2. Laws and Issuances

a. Laws and Regulations on Solid Waste Management

Republic Act 9003 (RA 9003), or the Ecological Solid Waste Management Act, remains the country's primary law governing waste avoidance and volume reduction, in addition to the proper segregation, collection, transport, storage, treatment and disposal of solid waste.⁹ Notably, this law devolves the primary responsibilities for implementation and enforcement on local government units at the provincial, city, municipal and *barangay* (village) levels.¹⁰

Several provisions in this law and its implementing rules (IRR)¹¹ relate to the private sector, with some specifying waste manufacturers, recyclers and generators. These encourage their participation in institutional mechanisms for policy-making, and seek to engage the sector in waste recycling and reclamation programs.

Additionally, the private sector may opt to undertake voluntary actions which are based on RA 9003. These include seeking environmental certification for their products, or entering into contracts or cooperative agreements for research and development.

The most salient of these provisions, and additional commentary, are summarized in **Table 2.1** below.¹²

⁸ <https://sdg.neda.gov.ph/philippine-action-plan-for-sustainable-consumption-and-production-pap4scp/>

⁹RA 9003 (2000) Section 2 c and d

¹⁰RA 9003 (2000) Section 10

¹¹DENR Administrative Order No. 34 series of 2001

¹²**Note:** RA 9003 was recently amended by RA 11898, or the EPR Act of 2022. This is described in a dedicated section under *Part d*.

Section	Summary	Comments
Policy-making and Governance		
RA 9003 Sec 4	<p>The National Solid Waste Management Commission (NSWMC) shall have three members from the private sector, as follows:</p> <p>The private sector shall be represented by the following: (a) A representative from non-government organizations (NGOs) whose principal purpose is to promote recycling and the protection of air and water quality; (b) A representative from the recycling industry; and (c) A representative from the manufacturing or packaging industry.</p> <p>A private sector representative also serves as the vice-chairperson of the Commission.</p>	<p>Private sector representatives have consistently participated via their seats in the NSWMC. The representative from the recycling industry representative is concurrently the NSWMC vice-chairperson.</p> <p>Notably, the recycling and manufacturing representatives have voted against several of the NSWMC's proposed Resolutions, including Resolution 1363 series of 2020, which seeks to ban the use of unnecessary single use plastics in government offices.¹³</p>
RA 9003 Sec 7 IRR Rule V Sec. 1	<p>Under the NSWMC, the National Ecology Center (NEC) is mandated to provide consulting, information, training, and networking services for the implementation of RA 9003.</p> <p>Of its functions, some are especially relevant to the private sector, and a potential EPR system, namely:</p> <p>Establishment and management of a solid waste management information database, with information on 1) solid waste generation and management techniques as well as the management, technical and operational approaches to resource recovery, and 2) processors/recyclers, the list of materials being recycled or bought by them and their respective prices; Promotion of the development of a recycling market through the establishment of a national recycling network; and Development, testing and dissemination of model waste minimization and reduction auditing procedures for evaluating options.</p> <p>In addition, the NEC shall also serve as the hub for networking of LGUs, NGOs and industry on voluntary compliance with pertinent provisions of RA 9003.</p> <p>The advisory pool of experts of the NEC shall also include representatives from practicing professionals, business and industry, among other stakeholders.</p>	<p>The NEC was only recently established via NSWMC Resolution 1500 series of 2021.</p> <p>This issuance provides for a body chaired by the head of the DENR-EMB, and composed of a multi-disciplinary pool of experts from the academe, professionals, business and industry, youth, women, and other concerned sectors.</p> <p>Pursuant to the identified qualifications, several individuals have already been identified as NEC experts.</p> <p>Additional responsibilities have already been assigned to the NEC under the EPR Act of 2022. Significantly, these include the monitoring, evaluation, assessment, and knowledge management under the EPR system. (see Table 2.4).</p>
RA 9003 Sec 12	<p>At the local government level, City and Municipal Solid Waste Boards are tasked with (among others) monitoring the implementation of the City or Municipal Solid Waste Management Plan in cooperation with the private sector and the NGOs.</p>	<p>Under the system of local autonomy and governance in the Philippines, local governments are given the primary mandate to implement solid waste management laws and regulations within their respective jurisdictions.</p>
Product Phase-outs		
<p>RA 9003 mandates the NSWMC to formulate and update a list of non-environmentally acceptable products (NEAPs), drawing from consultations with concerned industries and considering technological and economic viability.</p>		

¹³ NSWMC. *NSWMC Resolution No. 1363 series of 2020 – Resolution directing the DENR to prepare and implement the banning of the use of unnecessary single use plastics by National Government Agencies, Local Government Units and other Government Controlled Offices* (12 February 2020) <https://emb.gov.ph/wp-content/uploads/2020/02/2020-NSWMC-RESO-NO.-1363-SERIES-OF-2020-SINGLE-USE-PLASTICS.pdf>.

<p>RA 9003 Sec 29</p> <p>NSWMC Resolution No. 19 series of 2009</p>	<p>Significantly, NEAPs cannot be prohibited unless the NSWMC first finds that there are available alternatives available which will cost consumers no more than ten percent (10%) greater than the disposable product. If there are no commercially available alternatives, the NEAP in question cannot be prohibited.</p> <p>NSWMC Resolution No. 19 series of 2009 adopts guidelines on the phasing out of NEAPs.</p> <p>A copy of these guidelines is not publicly accessible. Nevertheless, public presentations from an activity organized by the National Academy of Science and Technology in 2019 appear to show that these guidelines specify four NEAP categories, namely Plastics, Construction Materials, Electronic Products and Products containing heavy metals.¹⁴</p>	<p>All private sector representatives are current members of the reconstituted Technical Working Committee for phasing out Non-Environmentally Acceptable Products and Packaging Materials.¹⁵</p> <p>In February 2021, NSWMC Resolution No. 1428 series of 2021 identified plastic coffee stirrers and plastic soft drink straws as NEAPs, and determined that these should be phased out in accordance with the guidelines.</p> <p>Notwithstanding this, civil society organizations sought legal action against the DENR, members of the NSWMC, and other government agencies, alleging their failure to release a list of NEAPs as required by RA 9003.¹⁶ In December 2021, the Supreme Court issued a Writ of <i>Kalikasan</i> and Writ of Continuing Mandamus against the government respondents, and referred the case to the Court of Appeals for hearing and reception of evidence.¹⁷</p>
<p>Engagement in Waste Collection, Segregation and Recycling</p>		
<p>RA 9003 Sec 17</p>	<p>Local Solid Waste Management Plans shall include specific measures to promote the participation of the private sector in solid waste management, particularly in the generation and development of essential technologies. Specific projects or component activities of the plan which may be offered as private sector investment activities shall be identified and promoted, as well as appropriate incentives for private sector involvement.</p>	<p>For example, the ten year Solid Waste Management Plan of Tuguegarao City includes a section detailing an agreement with a private corporation for the installation, operation and “maintenance of small, modular, renewable energy Municipal Solid Waste Processing Project.”</p> <p>To support the operation, the city committed to exempt the company from tipping/gate fees, to deliver its daily segregated waste only to the company, and to provide a site to house the facility at no cost.¹⁸</p>
<p>RA 9003 Sec 21</p>	<p>Local governments are mandated to evaluate roles for the private sector in waste collection and segregation, as appropriate under their local waste management system.</p>	
<p>Incentives and Fees</p>		
<p>IRR Part IV Rule XV Sec 3</p>	<p>The National Solid Waste Management Fund¹⁹ may be made available for local government projects and activities that catalyze private sector investments. A budget cap of Php1.5 million is imposed.</p>	<p>There is no readily available or publicly accessible information on the utilization and disbursement of the fund.</p>

¹⁴ “The Ecological Solid Waste Management Act - Updates on NEAP” <https://www.nast.ph/index.php/downloads/category/151-single-use-plastics?download=639:dr-lao-private-sector-initiatives>

¹⁵ NSWMC Resolution No. 1501 series of 2021

¹⁶ Peralta, Janine. “Government sued for alleged inaction on plastic pollution,” *Inquirer.net* (28 October 2021) <https://www.cnnphilippines.com/news/2021/10/28/NSWMC-writ-of-kalikasan-plastic-inaction.html>.

¹⁷ Oceana Philippines, “Petitioners welcome SC issuance of Writ of Kalikasan, Writ of Continuing Mandamus vs. National Solid Waste Management Commission and agencies on plastic pollution lawsuit” (17 December 2021) <https://ph.oceana.org/press-releases/petitioners-welcome-sc-issuance-of-writ-of-kalikasan-writ-of-continuing-mandamus-vs-national-solid-waste-management-commission-and-agencies-on-plastic-pollution-lawsuit/>

¹⁸ City of Tuguegarao. *Updated Ten Year Ecological Solid Waste Management Plan 2016-2025* (2016) https://tuguegarao.city.gov.ph/public/files/issuances/city_plans/Updated%20Ten%20Year%20Ecological%20Solid%20Waste%20Management%20Plan.pdf, 136.

¹⁹ Created under RA 9003 Section 46

IRR Part IV Rule XV Sec 7	The Local Solid Waste Management Fund may be made available for projects and activities that catalyze private sector investments. Private sector groups may avail of this fund once every three years, but must first be accredited by the Local Solid Waste Management Board.	
IRR Part IV Rule XVI Sec 1	Local Solid Waste Management Boards may contract with the private sector, to enable private proponents to finance, construct, operate and maintain a facility and, in the process, to charge user fees or receive compensation. Private proponents may operate the facility for up to 50 years, charge user fees, tolls, rentals or share in the revenue of the project, and recover their capital, operating and maintenance expenses and a reasonable return on investment.	For example, the local government of Quezon City executed a Private-Public partnership with Pangea Green Energy Philippines in 2007, for the “capture, collection, processing, and flaring of landfill gas (LFG), and conversion of methane into electricity,” from waste in the former Payatas Open Dumpsite. ²⁰ This project was registered as a Clean Development Mechanism project under the UN Framework Convention on Climate Change. ²¹ This facility generated Carbon emissions reduction units, which the company then traded on the carbon market. ²²
Voluntary Actions		
RA 9003 Sec 27	The Department of Trade and Industry (DTI) is mandated to develop and implement an eco-labeling system to facilitate waste recycling and reuse. This system shall be based on ISO standard 14024 ²³ with criteria based on product life cycle assessments.	The National Eco Labeling Program-Green Choice Philippines (NELP-GCP) is currently administered by the Philippine Center for Environmental Protection and Sustainable Development. (PCEPSDI). It is a voluntary program which can certify a company’s compliance with the principles and procedures under ISO standard 14024. ²⁴ Criteria are currently available for polyethylene-polypropylene packaging materials, and more broadly, for other packaging products. Notably, Executive Order (EO) 301 series of 2004 requires all government agencies and offices to establish Green Procurement Programs, and submit this to the National Ecolabeling Program Board for third-party verification.

²⁰ C40 Cities, “Clean Energy in Quezon City: A Wasteland turned into a Waste-to-Energy Model” (September 2018) <https://www.c40.org/case-studies/clean-energy-in-quezon-city-a-wasteland-turned-into-a-waste-to-energy-model/>

²¹Ibid.

²²Tumamao-Guittap, Geomilie, Maria Edrose Corsame and Liza Velle Ramos. “Methane Recovery Facility in Payatas: A Partnership between the Quezon City Government and Pangea Green Energy, Inc.” *Academia.edu* (May 2017) https://www.academia.edu/33152323/Methane_Recovery_Facility_in_Payatas_A_Partnership_between_the_Quezon_City_Government_and_Pangea_Green_Energy_Inc

²³Environmental Labeling – Practitioner Programs – Guiding Principles, Practices and Certification Procedures of Multiple Criteria (type 1) Programs

²⁴“About Green Choice Philippines” <https://pcepsdi.org.ph/programme/green-choice-philippines/about-green-choice-philippines/> (2018)

<p>RA 9003 Sec 54</p> <p>IRR Rule XXI Sec 1</p>	<p>Government agencies are assigned specific areas of research on solid waste management, according to their mandates and expertise. In particular, the Department of Science and Technology (DOST) is tasked with initiating research on alternative uses of non-recyclable or non-reusable materials, among others.</p> <p>Private sector participation in research on solid waste management is encouraged.</p>	<p>The DOST's Harmonized National Research and Development Agenda 2017-2022 includes a section on Industry, Energy and Emerging Technology. Waste management appears as a research priority under this section, with particular references to "new product development" and "solid waste minimization."²⁵ On this basis, the DOST has supported Waste Analysis and Characterization Studies as well as pilot tests of waste processing technologies.²⁶</p> <p>Additionally, the DOST implements a Business Innovation through Science and Technology (BIST) program, through which Filipino companies may apply for zero-interest loans to acquire new technologies for research and development. Environment and climate change are identified priority areas for this program.²⁷</p>
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Table 2.1 – Relevant Provisions of RA 9003, IRR and other relevant guidelines

b. Laws and Regulations on Hazardous Waste

Other policies have been passed to regulate specific types of waste. Chief among these is **Republic Act 6969, or the Toxic Substances and Hazardous and Nuclear Wastes Control Act (RA 6969)**, though the application of this law is fairly specific. Notably, DENR Administrative Order 2013-22, or the procedural manual for the implementation of RA 6969, does not currently list plastic waste among the classification of prescribed hazardous wastes.

Relevant provisions from these, and additional commentary, are summarized in **Table 2.2** below:

Section	Summary	Comments
Manufacturing and Importation Requirements		
RA 6969 Sec. 8	<p>Before any new chemical substance or mixture can be manufactured, processed or imported for the first time as determined by the DENR, the manufacturer, processor or importer shall submit the following information: the name of the chemical substance or mixture; its chemical identity and molecular structure; proposed categories of use; an estimate of the amount to be manufactured, processed or imported; processing and disposal thereof; and any test data related to health and environmental effects which the manufacturer, processor or importer has.</p>	

²⁵Department of Science and Technology. *Approved Harmonized National Research and Development Agenda 2017-2022* (2017) gov.ph/phocadownload/Downloads/Journals/Approved%20Harmonized%20National%20RD%20Agenda%20%202017-2022.pdf 37

²⁶ DOST-Industrial Technology Development Institute. "Environment" <https://itdi.dost.gov.ph/index.php/what-we-do/research-and-development/environmental>

²⁷ DOST-Science for Change Program. "Business Innovation for Science and Technology for Industry" <https://s4cp.dost.gov.ph/programs/bist/>.

RA 6969 Sec. 9	<p>Testing shall be required in all cases where:</p> <p>a) There is a reason to believe that the chemical substances or mixture may present an unreasonable risk to health or the environment or there may be substantial human or environmental exposure thereto;</p> <p>b) There are insufficient data and experience for determining or predicting the health and environmental effects of the chemical substance or mixture; and</p> <p>c) The testing of the chemical substance or mixture is necessary to develop such data.</p> <p>The manufacturers, processors or importers shall shoulder the costs of testing the chemical substance or mixture that will be manufactured, processed, or imported.</p>	
Alternative Uses for Hazardous Waste		
<p>DENR DAO 2010-06</p> <p>DENR DAO 2021-14</p>	<p>DENR DAO 2010-06 provides guidelines on the use of alternative fuels and raw materials in cement kilns. Under these, waste materials may be co-processed as alternative fuels or alternative raw materials, provided that they comply with applicable environmental standards and pass waste acceptance criteria insofar as their heavy metal content, ash content and calorific content.</p> <p>Co-processing facilities must also demonstrate that they can ensure safe and effective operations, and compliance with environmental and occupational safety laws.</p> <p>Subsequently, DENR DAO 2021-14 clarified that the following wastes are acceptable for co-processing:</p> <p>Dismantled and segregated Polybrominated Diphenyl Ethers (PBDE)-containing plastic from Waste Electrical and Electronic Equipment; and Municipal solid waste already segregated at source, or at any other collection, consolidation or sorting station</p>	<p>More recently, the DENR has actively “urged cement manufacturers to “explore ways to utilize plastic waste as raw material,” as this is projected to reduce the country’s plastic waste by 40 to 60 percent.²⁸</p> <p>Advocacy groups, however, have called this a “false solution” that does not address the root cause of the problem, and potentially releases other harmful pollutants into the environment.²⁹</p>

²⁸Mayuga, Jonathan. “Cement plant + Plastic waste = Saving planet?” *Business Mirror* (20 March 2022) <https://businessmirror.com.ph/2022/03/20/cement-plant-plastic-waste-saving-planet/>.

²⁹Ibid. See also Bueta, G.R.P. *Process Engineered Fuel – Fuel product or plastic waste export in disguise? EcoWaste Coalition/IPEN, March 2022.*

<p>DENR DAO 2019-21</p>	<p>DENR DAO 2019-21 provides guidelines for the establishment, operation and decommissioning of Waste to Energy (WtE) facilities.</p> <p>Under these guidelines, the following types of waste may be accepted by these facilities:</p> <p>Source segregated biodegradables or residual waste; and Pre-processed unsegregated waste, from calamities, flooding and clean ups.</p> <p>It must be noted, however, that Republic Act 8749, or the Clean Air Act of 1999 explicitly bans incineration, or burning of municipal, biomedical and hazardous waste, which emits poisonous and toxic fumes.³⁰ RA 9003 also excludes incineration in its enumeration of best environmental practices in ecological waste management.³¹</p>	<p>The private sector has increasingly sought collaboration with LGUs for the establishment and operation of WtE facilities. Major metropolitan areas such as Davao City,³² Cebu City,³³ Quezon City³⁴ and Baguio City³⁵ have expressed interest in, piloted, or begun negotiations for the establishment of these.</p> <p>Civil society organizations have opposed WtE incineration, calling it a “convenient excuse for plastic waste producers to avoid accountability,” and a significant source of greenhouse gas emissions.³⁶</p>
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Table 2.2 – Relevant Hazardous Waste Laws and Regulations

c. Green Jobs and other Corporate Regulations

i. Green Jobs

Experiences from other countries have shown how the introduction of EPR schemes can create new job opportunities in the waste management sector, especially as activities in recycling and reuse increase.³⁷ In the Philippines, the creation of these jobs could be covered by **Republic Act 10771, or the Green Jobs Act of 2016**. This law is expected to engage the private sector as it provides for additional incentives for businesses that can create identified “green jobs”. Environment and natural resource-related industries are thus encouraged to seek certification to avail of these incentives.

Salient provisions from the law, its IRR,³⁸ and the National Green Jobs Human Resource Development Plan,

³⁰RA 8749 (1999) Section 20

³¹RA 9003 (2000) Section 2(d)

³²Davao City’s project is funded by ODA from the Japanese government. Cortez, Kath. “Davao’s waste incineration face bumps for its approval” *Davao Today* (26 December 2020) <http://davaotoday.com/main/environment/davaos-waste-incineration-project-face-bumps-for-its-approval/>.

³³In Cebu City New Sky Energy Philippines has been granted original proponent status by the local joint venture committee. Business World, “Cebu City grants original proponent status for Waste to Energy facility,” *Business World* (6 April 2022) <https://www.bworldonline.com/economy/2022/04/06/440803/cebu-city-grants-original-proponent-status-for-waste-to-energy-facility/>.

³⁴Quezon City has resumed negotiations with the Metro Pacific Investments Corporation for the establishment of a 42 megawatt facility. Dumalo-Abadilla, Doris. “MPIC, QC government revive talks on 42 MW Waste to Energy project” *Philippine Star* (6 August 2021) <https://business.inquirer.net/328461/mpic-qc-govt-revive-talks-on-42-mw-waste-to-energy-project>

³⁵Baguio City’s 10-megawatt plant project will be jointly implemented by the LGU, Philippine National Oil Company - Renewables Corporation and Metro Global Renewables Corporation. See, Dexter. “Baguio City puts up own Waste to Energy plant” *The Manila Times* (20 September 2021) <https://www.manilatimes.net/2021/09/20/news/regions/baguio-city-puts-up-own-waste-to-energy-plant/1815386>.

³⁶Break Free from Plastic, “Over 100 organizations express opposition to WtE incineration bill,” (4 June 2021) <https://www.break-freefromplastic.org/2021/06/04/over-100-organizations-express-opposition-to-wte-incineration-bill/>.

³⁷See: Kim, JH. “Extended Producers Responsibility and job creation in Korea,” *Waste Management and the Environment* vol. 163 WIT Press (2012) <https://www.witpress.com/elibrary/wit-transactions-on-ecology-and-the-environment/163/23685>

³⁸DOLE Department Order No. 180-17 (8 September 2017)

with additional commentary, are summarized in **Table 2.3** below:

Section	Summary	Comments
Green Jobs coverage and creation		
RA 10771 Sec. 4(c)	Green jobs refer to employment that contributes to preserving or restoring the quality of the environment, be it in the agriculture, industry or services sector. Specifically, but not exclusively, this includes jobs that help to protect ecosystems and biodiversity, reduce energy, materials and water consumption through high efficiency strategies, decarbonize the economy, and minimize or altogether avoid generation of all forms of waste and pollution.	This definition is broad enough to encompass employment that may be created under an EPR system. Organic farming and renewable energy have been preliminarily identified as an activity with green jobs prospects, ³⁹ but the Climate Change Commission (CCC) can further expand this list through the certification process.
National Green Jobs Human Resource Development Plan 2019-2022⁴⁰	Under its objective of improving the social protection and resilience of Vulnerable Sectors, ⁴¹ the plan seeks to: Establish and/or enhance unemployment protection policies and programs for workers in the formal and informal sector who will be affected by impacts of climate change and the green transition; Formulate adequate, accessible, and innovative social protection measures for hard-to-reach sectors that are often hardly hit by climate change such as mining, agriculture, fishing, solid waste management, and the informal sector.	As part of the plan, the private sector identified challenges with generating and sustaining green jobs. These included lack of workers with the necessary “green skills and competencies,” red tape, extortion and corruption in the regulatory environment, and the absence of “sustainable actions” (in consumer behavior, availability of materials, and budgets for green investments) that would encourage industries to go green. ⁴² The solid waste sector was reportedly consulted in the preparation of the Plan. ⁴³ No details are provided on who represented the sector in these consultations.
Incentives for the creation of green jobs		

³⁹Teves, Catherine. “CCC prepares for green jobs certification” *Philippine News Agency* (1 February 2019) <https://www.pna.gov.ph/articles/1060695>.

⁴⁰This document was formulated by the Department of Labor and Employment pursuant to its mandate under RA 10771 Sec. 6(a).

⁴¹National Green Jobs Human Resource Development Plan 2019-2022 published in *Philippine Labor Review* vol. 1 no. 2 (July 2019) 167

⁴²Ibid. 151-152

⁴³Ibid. 145

RA 10771 Sec. 5	<p>For the purpose of encouraging business enterprises to generate and sustain green jobs as certified by the Climate Change Commission (CCC), business enterprises shall enjoy:</p> <p>(a) Special deduction from the taxable income equivalent to fifty percent (50%) of the total expenses for skills training and research development expenses which is over and above the allowable ordinary and necessary business deductions for said expenses under the National Internal Revenue Code of 1997, as amended; and</p> <p>(b) Tax and duty free importation of capital equipment: Provided, that the capital equipment is actually, directly and exclusively used in the promotion of green jobs of the business enterprise.</p> <p>These apply in addition to those already granted other laws (including RA 9003).</p>	
RA 10771 Sec. 6 IRR Sec. 3 and 4	<p>The CCC is tasked with leading the development of standards for the assessment and certification of green goods and services, and green technologies and practices.</p> <p>Certification from the CCC is required to enable business enterprises with green jobs to avail of these incentives. The Department of Finance, through the Bureau of Internal Revenue and Bureau of Customs shall administer the grant of the incentives.</p>	<p>The CCC had received support from the ILO for the development of these regulations. They were targeted for release by 2020,⁴⁴ but this does not seem to have been accomplished.</p>

Table 2.3 – Relevant Provisions related to Green Jobs

ii. Sustainability Reporting and Corporate Governance

The Code of Corporate Governance for Publicly Listed Companies⁴⁵ prescribes sixteen principles to guide the operations of Philippine corporations. Of these, principle 16 encourages sustainability and social responsibility. It is broadly recommended that companies “promote a mutually beneficial relationship that allows the company to grow its business, while contributing to the advancement of the society where it operates.”⁴⁶

This Code adopts a “comply or explain approach” which “combines voluntary compliance with mandatory disclosure.” Companies must therefore “state their compliance” as part of annual reports, and identify and explain reasons for non-compliance.⁴⁷

SEC Memorandum Circular no. 4 series of 2019, provides the sustainability reporting guidelines for publicly listed companies. Disclosure of the environmental, economic and social aspects of their business forms part of their mandatory annual reporting.

Beyond the amount of waste that they generate and their solid waste management practices, an EPR system will likely have implications for reporting across these three areas. Under the guidelines, publicly listed companies are also asked to report on impacts, opportunities and risks of their business operations on affected stakeholders, and how these will be managed.

iii. Financial Instruments and Investments

⁴⁴Flores, Helen. “Climate Commission fast tracks system for green jobs,” *Philippine Star* (30 May 2019) <https://www.philstar.com/business/science-and-environment/2019/05/30/1921927/climate-commission-fast-tracks-system-green-jobs>

⁴⁵SEC Memorandum Circular no. 19 series of 2006

⁴⁶Ibid. Recommendation 16.1

⁴⁷Ibid. Introduction (2)

Funding for solid waste management technologies and mechanisms related to EPR may also benefit from financial instruments such as green bonds. On this, the Securities and Exchange Commission (SEC) has formalized standards for the issuance of ASEAN Green Bonds through SEC Memorandum Circular no. 12 series of 2018. These are issued by ASEAN entities and/or are for “green projects” located in ASEAN, such as those which address pollution prevention and control, and the development of eco-efficient or circular economies.⁴⁸

d. Mandatory EPR – the EPR Act of 2022

RA 11898, or the EPR Act of 2022 lapsed into law on 23 July 2022, after no action was taken on the consolidated bill by both the outgoing and newly installed Presidential administrations.⁴⁹ Its official effectivity date is 13 August 2022, after its publication in a newspaper of general circulation. It amends RA 9003, by institutionalizing an EPR system for the country, with specific measures prescribed for plastic packaging waste.

Salient provisions of the new law, with additional commentary, are summarized in **Table 2.4** below.

Section	Summary	Comments
Scope and Coverage	<p>Obligated companies - Product producers obliged to implement EPR include large enterprises that generate plastic packaging waste. These are business entities whose total assets exceed Php100 million, per RA 9501 (Sec. 3 p4, Sec. 44b). Micro, small and medium enterprises are however “encouraged” to practice EPR voluntarily, whether as part of a network or through a PRO (Sec. 44b).</p> <p>Product producers include brand owners who sell or supply commodities, product manufacturers and importers (Sec. 3 w2).</p> <p>Plastic Packaging – Plastic packaging to be covered by EPR include: Sachets, labels, laminates and other flexible packaging products, whether single layer or multi-layered; Rigid plastic packaging (including containers for food, beverages, cosmetics, and their coverings, necessities and labels); Plastic bags (including SUP bags); and Polystyrene (Sec. 44c).</p>	<p>Note that some rigid plastic packaging (coffee stirrers and plastic straws) to be covered by EPR have been identified as NEAPs under NSWMC Resolution No. 1428, and are scheduled to be phased out.</p>
PRO	<p>Obligated companies shall institute their EPR programs individually or collectively, whether with or without a PRO (Sec. 44d). Establishment of a PRO is voluntary (Sec. 44h).</p> <p>The DENR, in consultation with the NSWMC, obliged companies or the PRO is tasked with establishing standards, rules, and guidelines on the following: Organizational structure and leadership; Membership requirements; Duties and responsibilities, including: a) Implementation parameters of the EPR program, b) Financing mechanisms; c) Cooperation mechanisms with other players and stakeholders, including the informal waste sector; and d) Implementation strategies; Standards on plastic neutrality,⁵⁰ Reporting, verification and auditing of waste footprint generation, recovery and diversion; and Data collection and database maintenance (Sec. 44h).</p>	<p>These provisions essentially allow a no-PRO, single-PRO, or multiple PRO scenario for EPR implementation, subject to standards, rules, and guidelines to be drafted by DENR.</p>

⁴⁸SEC Memorandum Circular no. 12 series of 2018 Section 5, 8

⁴⁹See relevant provisions in Section 27 (1), Article VI of the 1987 Philippine Constitution

⁵⁰The law defines plastic neutrality as “a system or its desired outcome where, for every amount of plastic product footprint created, an equivalent amount thereof is recovered or removed from the environment by the product producers through an efficient waste management system (Sec. 3 v2).”

EPR Mandates	<p>From the law's effectivity, obliged companies have six months to establish their EPR programs for plastic packaging. These may include the following activities or strategies:</p> <p>Reduction of Non-Environmentally Friendly Products by: Adoption of reusable products, or redesign of the products to improve reusability, recyclability, or retrievability; Inclusion of recycled content or recycled materials in a product; Adoption of appropriate product refilling systems for retailers; Viable reduction rates plan; Information and education campaign schemes; and Appropriate labelling of plastic products, including the information for its proper disposal (Sec. 44a)</p> <p>Waste recovery programs to prevent leakage of waste into the environment, through: Waste recovery schemes through redemption, buy back, offsetting, or other methods or strategies; Diversion of recovered waste into value chains and value-adding useful products through recycling and other sustainable methods; Transportation of the recovered waste to the appropriate composting, recycling or other diversion or disposal sites in the country; Clean-up of waste leaked to coastal areas, public roads, and other sites; Establishment of commercial or industrial scale recycling, composting, thermal treatment, and other waste diversion and disposal facilities for waste products, when investment therein is viable; and Partnership with LGUs, communities and the informal waste sectors (Sec. 44a)</p>	<p>CSOs had strongly urged the President to veto this law, citing, among others, vague provisions which would allow for the use of "pollutive technologies," such as incineration, pyrolysis and thermal treatment, a lack of up-stream solutions, and the absence of time bound targets.⁵¹</p>
Compliance	<p>Obliged companies or the PRO/s must register EPR programs with the NSWMC within 6 months from the effectivity of the law (Sec. 44d).</p> <p>Obliged companies that generate rigid or flexible plastic packaging must recover their plastic product footprint generated during the immediately preceding year⁵² according to the following schedule:</p> <p>20 percent recovery by 31 December 2023; 40 percent recovery by 31 December 2024; 50 percent recovery by 31 December 2025; 60 percent recovery by 31 December 2026; 70 percent recovery by 31 December 2027; 80 percent recovery by 31 December 2028, and the succeeding years thereafter (Sec. 44f).</p>	<p>Many companies, including leading FMCG producers and industry associations have raised concerns over these targets, which they see as too high, especially when compared to the waste recovery targets in countries that have had longer experience with EPR implementation.</p>

⁵¹Ranada, Pia. "More harm than good: Green groups urge Marcos to veto EPR Bill" *Rappler* (14 July 2022) <https://www.rappler.com/nation/green-groups-urge-marcos-jr-veto-extended-producers-responsibility-bill/>

⁵²The law defines product footprint as "a measure of the amount of goods produced, imported, distributed or supplied by a product producer and deemed to cause damage to the environment (Sec. 3 w1)."

Reporting, Monitoring and Evaluation	<p>To monitor and assess their EPR programs, obliged companies or the PRO/s shall engage independent third-party auditors to certify their reported plastic product footprint generation, recovery and compliance. Standards for this shall be prescribed by the DENR. Certified reports shall, as a general rule, be publicly accessible (Sec. 44g).</p> <p>The functions of the NEC have been expanded to include: Establishment and management of information databases on solid waste management techniques and approaches, processors and recyclers, the prices of recyclable materials, and submitted EPR reports; Development of a recycling market through a national network; Maintenance of an EPR registry of the programs submitted by obliged companies and PROs; Monitoring and evaluation of the compliance of obliged companies and PROs with the registration of EPR programs; Receipt and assessment of PRO reports and citizens' complaints related to EPR compliance; Identification of other forms of waste for inclusion in the EPR scheme, one year from the effectivity of the law (Sec. 7).</p>	<p>As noted in Table 2.1 above, the NEC has only recently been established. Although several individuals have been engaged for its pool of experts, additional time may be needed before the body is fully operational.</p>
Incentives	<p>EPR expenses of obliged companies, PROs and other businesses are considered necessary expenses that may be deducted from their gross income (Sec. 45b).</p>	<p>Other incentives are available under other environmental laws such as in RA 9003 or the Green Jobs Act.</p>
Penalties	<p>Failure to register an EPR program, or meet the waste recovery targets shall be punishable by a fine of Php5 million to Php20 million (depending on how many infractions have been previously committed). Automatic suspension of their business permit shall be imposed for the third offense.</p> <p>In case of failure to meet the waste recovery targets, the obliged company shall pay the given fine, or an amount twice the cost of the recovery and diversion of the footprint or its shortfall, whichever is higher (Sec. 49).</p>	<p>Many companies, including leading FMCG producers and industry associations have raised concerns over these penalties, which they see as too excessive, given the difficulty of meeting the waste recovery targets.</p>

Table 2.4 – Key Features of the EPR Act of 2022

Many of these provisions may be considered overly broad, and in need of additional clarity so as to be fully implementable. This additional guidance is expected to be detailed in a National Framework for EPR, to be developed by the DENR in consultation with the NSWMC, within three months from the effectivity of the law, as well as other issuances from the Department. Per Sec. 44a, the Framework is expected to apply to all types of product waste, and should contain the following components (see EPR Mandates in Table 2.4 above):

Activities and strategies for the reduction of Non-Environmentally Friendly products; and,
Activities for product waste recovery programs to prevent waste from leaking into the environment;

At this point, it is not clear whether targets will be specified for the activities and strategies detailed in the plan. As the EPR Law currently only applies to plastic packaging waste, the Framework will likely focus on these first, with subsequent amendments if Congress decides to broaden the EPR scope down the line.

Moreover, details will be needed on the following, before EPR programs can be successfully implemented:

- **Operationalizing voluntary PROs** – The EPR law is explicit that implementation through a PRO will be the prerogative of the obliged companies. They are only required to decide on their mode of implementation (whether individually, collectively or through a PRO) upon their registration of their respective EPR program with the NSWMC.
Likewise, obliged companies seem to be free to decide on the activities and strategies that will comprise their EPR program so long as they meet the collection targets set by the law.

No further guidance is given on the standards, procedures and guidelines for compliance with the EPR Law – a process for crafting these is broadly provided for in Sec. 44h, and implementing rules which could

provide these crucial details are mandated to be issued within 90 days from the law's effectivity.

- **Defining EPR costs and fees** – EPR fees and financial flows are not clearly articulated and explained. Obligated companies appear to be free to determine how they will finance their EPR programs, but whether public funds and government contributions (in particular, through LGUs) will also be available is not yet provided for. Pass on fees to consumers, if applicable or allowed, have also not been indicated. This creates some uncertainty as to how EPR programs will be financed, and also as to how these will integrate into the overall waste management system.
- **Accessible and comprehensive data management system and registry** – Proper and effective monitoring of the EPR system will require proper data management. Thus there is a need to ensure comprehensive data on obliged entities, waste management operators (WMOs), program details, and product-related data, among others are accessible to polic-makers, enforcement agencies, and the general public. Under the EPR Act of 2022, the NEC is mandated to create a database and registry of the EPR system. However, the details on what data is required from obliged companies, and how this will be disseminated is yet to be determined. Experiences from other countries show that EPR registries are usually online, regularly updated, and publicly accessible.
- **Clarity on the role of local governments and other government agencies** – Under RA 9003, local governments are primarily responsible for waste management functions within their jurisdiction. Since EPR programs should be integrated into the overall waste management system, there needs to be clarity on how local governments will be involved in the EPR schemes and programs. For example, what role will local MRFs play in segregation, collection and sorting EPR-system bound plastic products. While this is not currently provided for in the law, these can be articulated in the National Framework on EPR.

At the national level, the role of other government agencies must likewise be clear, to ensure that EPR aligns with other sectoral plans and strategies. At present, save their membership in the NSWMC, the roles and functions of other crucial agencies such as the DTI, DOST, the Department of the Interior and Local Government, and the Department of Finance, are not specified. This could also be provided for in the National Framework on EPR, or even in the Philippine Development Plan, when it is updated.

- **Clarity on waste recovery targets, and priorities for activities and strategies** – The targets in the law's Sec. 44f apply to "the recovery of plastic product footprint generated during the immediately preceding year." However, recovery is only one component of the solid waste management system – and the law as written would seem to indicate that so long as the obliged companies collect the plastic waste, even if these are not recycled, they are deemed compliant with the law.

Similar concerns were raised by CSOs, whose opposition to the consolidated Bill pointed out that "other solutions such as a shift to the refill model of selling goods, recycling, reusing, and redesigning products or packaging" were not sufficiently covered.

This also presents the issue of the choice of disposal method for the plastics collected. Solid waste management in the Philippines is challenged by the absence of efficient recycling infrastructure. While the EPR Act recognizes the establishment of waste facilities, this is only an option, when investments are economically viable. Thus, it may be that even if the waste recovery targets are met, there will be few facilities available to recycle, compost or treat the waste collected.

Concerns over the allowable methods for waste disposal are also valid. While the DENR has issued regulations on the use of waste in cement kilns and Waste to Energy facilities (see Table 2.2), it can be argued that these have not sufficiently overcome the explicit ban on incineration, or burning of municipal, biomedical and hazardous waste, in the Clean Air Act, and as such, may still be challenged.

- **Clarity on the participation of the informal waste sector** – The EPR Act recognizes the informal waste sector very generally in Sec. 44a, which considers partnerships with this sector as waste recovery activities. Informal waste workers are critical stakeholders in waste collection and recycling, especially in less urban and rural communities that have limited access to available infrastructure and waste management facilities. The EPR system must take these contributions into account and provide clarity on how the sector can be formalized or otherwise integrated into programs. More

importantly, efforts at recognizing and integrating the informal waste sector will ensure the protection and promotion of their rights as a vulnerable sector.

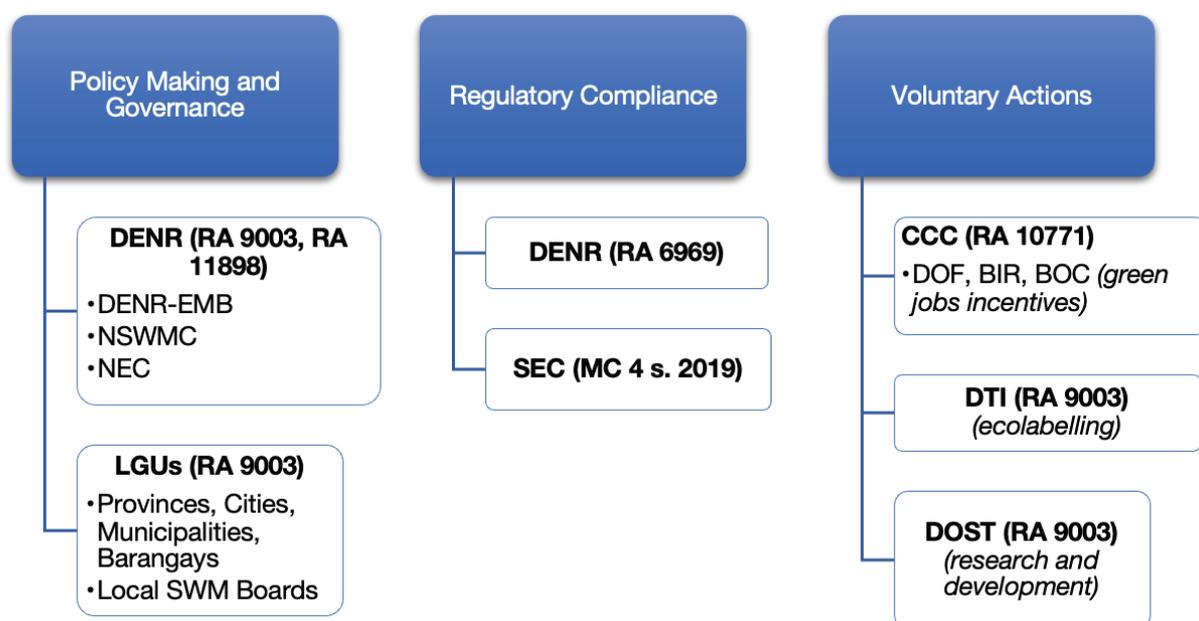
Thus, the National Framework may provide additional clarity on the sector's participation, although there are roadblocks in the availability of data and organization of the waste workers (see additional discussion in succeeding sections).

3. Institutional Framework for Waste Management in the Philippines

Figure 2.1 - Institutional Framework for Waste Management in the Philippines

The institutional framework for waste management in the Philippines can be classified and analyzed based on the functions of the different agencies involved. These classifications are:

- Policy Making and Governance;
- Regulatory Compliance; and,



- Voluntary Actions.

It is worth noting that the functions of some agencies may overlap among, or even encompass all the classifications above. Thus, the agencies indicated in Figure 2.1 above are the main responsible agencies, but other government units can also play a direct or collaborative role for the said function.

The **Department of Environment and Natural Resources (DENR)** is the national government agency with the primary mandate for the implementation of RA 9003, RA 6969 and RA 11898. The **Environmental Management Bureau (DENR-EMB)** performs the functions related to these policies, through its Solid Waste Management Division and Environmental Quality Division.

The DENR is the Chair of the National Solid Waste Management Commission, while the EMB also serves as its Secretariat.

The DENR also co-chaired the **Cabinet Cluster on Climate Change Adaptation and Mitigation and Disaster Risk Reduction (CCAM-DRR)**, which includes a program on Sustainable Consumption and Production. Through its Technical Working Group on Circular Economy, Sustainable Consumption and Production, and Single-Use Plastics, this body has recommended the phasing out of single-use plastics as a strategy to avoid and reduce waste.

With the new administration, it is not yet clear whether the CCAM-DRR will be maintained, or if another inter-agency body will be constituted.

The **National Solid Waste Management Commission (NSWMC)** has been a significant mechanism for private sector participation on policy and decision making on solid waste management. New private sector and NGO representatives are set to be appointed to the body pursuant to the EPR Act of 2022. Under RA 9003, nominees for these seats are sourced through an internal process, and are subsequently appointed by the President to serve three-year terms.

The **National Ecology Center (NEC)** was only established in December 2021, and may need time before it is fully functional. Although there is an initial list of experts for the body, with representatives from government, private sector and civil society, some delay can be expected before their appointment is finalized.

Moreover, because the body is new, they will have a lot on their plate, besides the EPR-related functions under the new law. It is unlikely that they will be able to make much headway beyond the selection of members, the crafting of initial internal rules, and capacity building activities on solid waste management in partnership with private training facilities.

Local Government Units (LGUs), particularly at the city and municipal levels, are key implementers of RA 9003, as they bear the responsibility of waste collection, segregation, processing and disposal within their areas of jurisdiction. LGUs are tasked to replicate the NSWMC structure at the provincial, city/municipal and barangay levels. This is to ensure coordination, cooperation, and collaboration between and among local stakeholders in the implementation of waste management laws and policies. In this, some have been more successful than others - collection, for example, is especially efficient in highly urbanized areas, such as those in the National Capital Region (NCR). However, this dips significantly in more rural areas, particularly those in the Cagayan Valley, Bicol Region and the Bangsamoro area (BARMM).

Other LGUs have also been more innovative and active in seeking partnerships - implementing waste-to-cash programs to incentivize the collection of recyclables, and collaborating with the private sector and NGOs for recycling, periodic clean-ups, and awareness raising activities.

It is worth noting that the **Department of the Interior and Local Government (DILG)** exercises supervisory powers over LGUs. Its role is to ensure that local governments comply with national laws, rules and regulations. The DILG assist the DENR in monitoring local government compliance with RA 9003 and other relevant waste management laws.

The **Climate Change Commission** has specific functions under RA 10771, on the development of standards for the assessment and certification of green goods and services (see Table 2.4 above). This task however remains outstanding. Despite this, the CCC has also recently been a vocal advocate of a nationwide ban on single-use plastics, considering this essential to meeting the Paris Agreement's long-term temperature goal.

Currently, two of three Commissioners are new appointees. It is not yet clear how they will carry this position forward, especially in light of the EPR Act of 2022.

The **Department of Science and Technology** provides valuable advice and regularly engages the private sector in discussions on waste management. Through its **Industrial Technology Development Institute (DOST-ITDI)** and the **Philippine Council for Industry, Energy, and Emerging Technology Research and Development (DOST-PCIEERD)**, the agency conducts significant research on solid waste management, including economic and life cycle assessment of single-use plastics.

The **DOST-National Academy of Science and Technology (DOST-NAST)** has also issued relevant Science Advisories on Research and Development on Plastic Waste Biodegradation and Utilization and how the challenge of plastic waste can best be met by local governments.

The private sector also participates in its fora, and has shown alignment with DOST-NAST's views.

4. Analysis of the Philippine Legal, Policy, and Institutional Framework on Waste Management

This section of the Report will provide a SWOT analysis of the Philippine legal, policy, and institutional framework on waste management. The discussions will focus on how this existing framework can support the establishment and operationalization of EPR in the country.

a. Strengths

The Philippines has comprehensive laws, rules, and regulations on waste management which provide for the **policy and institutional “backbone” or foundation for an EPR system**. The constitutional provision under Section 16, Article II is supported by the waste management system provided for under RA 9003. These policies and principles have been characterized as sufficient in providing the needed components for the success of the EPR Act of 2022. Current laws recognize waste reduction and recycling as key strategies, and encourage the business sector and citizens to be partners in waste management.

The institutional framework discussed above, with its roles at the national and local levels, will have to be mobilized to support the implementation of the EPR Act. Crucially, local governments can also be on-the-ground partners for implementing EPR, especially as it integrates with existing waste management operations. Obligated companies can thus tap into functioning waste management systems at the local level for EPR implementation.

Increasing awareness and understanding of EPR among various stakeholders is also proving beneficial. A decade ago, EPR was a little-known concept within waste management discussions. Now, however, it has entered the narrative as one of the recognized tools and methods to address the plastic waste crisis in the Philippines. Healthy debates and discussions, increasing numbers of studies, and pilot projects and implementation have increased in recent years. This is also reflected in the high priority being given by government leaders and policy makers to waste management solutions and circular economies, notably seen in the recent passage of the EPR Act. In particular, the recently elected President in his first State of the Nation Address, made enforcing environmental laws and dealing with issues such as pollution a priority.

The increased awareness of EPR is **leading to different solutions being explored and offered** – ranging from using new and innovative technologies to community-based schemes and programs. Industry associations, such as PARMS and the Philippine Plastics Industry Association (PPIA) have collectively embarked on voluntary actions on recycling and reuse.

Social enterprises have also begun testing more eco-friendly packaging and processing of waste to produce building materials, although these initiatives are not yet implemented at scale. Other CSOs have worked with local governments and community-based organizations, providing capacity building, equipment and other support for informal waste workers and junk shops.

b. Weaknesses

The oft repeated challenge in the Philippines, and one which is a critical weakness for EPR, is the **poor implementation and enforcement of waste management laws**. This is evident on many fronts – despite over 20 years of RA 9003, mandatory segregation is often not enforced, the crackdown on open dumpsites was only pursued in earnest in the last few years, the list of NEAPs is far from complete, and waste facilities at national and local levels are lacking or in poor condition.

This is compounded by the limited government capacity to enforce waste management laws and to monitor compliance. This covers both a lack of personnel, and limited technical equipment for proper and effective monitoring. This is especially evident at the local government level, where lower income LGUs oftentimes do not have the financial and technical means to meet their waste management mandates.

These challenges are expected to hinder proper EPR implementation, which does not only require an explicit legal mandate, but also a well-functioning, effective, and efficient waste management system for its success.

Poor implementation and enforcement of waste management policies may be a result of **a lack of coherence in national policies and programs** for the environment and natural resources sectors, and for solid waste management in particular. The National Solid Waste Management Strategy, which could have been a valuable agenda-setting and steering document, is outdated, and there are different sectoral plans and programs which are being implemented independently from each other. Government agencies tend to work in silos and projects and programs can overlap.

Despite the presence of mechanisms such as the NSWMC, which allows government authorities and stakeholders to discuss and collaborate, there is still a clear need to synergize and link the different plans

and programs to ensure that issues such as plastic waste are addressed in a holistic manner. A whole-of-government approach will then lead to a wider whole-of-society approach in dealing with waste management.

c. Opportunities

The **broad awareness and consciousness of the plastic crisis, and the recognition of EPR as one of the viable solutions**, is an opportunity that can be harnessed and even scaled-up. This public support may translate into public willingness to accept changes, added costs (if needed), and adopt new methods of waste management and disposal. This will likewise help temper political concerns of implementing and pushing for oftentimes unpopular – yet needed – policies and programs on waste management.

Rising private sector support can also be harnessed towards EPR success. Large companies, particularly MNCs have demonstrated interest in shifting towards more sustainable models. Despite concerns with the targets and penalties in the EPR Act, many have been generally supportive of the policy. Voluntary EPR schemes have also been instituted with some pilot tests set to begin, and can be scaled up now that measures are mandatory for plastic packaging waste.

d. Threats

Waning political will to prioritize waste management issues is a real concern. Like other governments, the Philippines has emphasized the need for economic recovery as a result of the COVID-19 pandemic. Government funds and resources will therefore likely be channeled to economic measures, and away from environmental programs. This situation will also make LGU roles even more unclear in the EPR system given the lack of guidance from the national government. Misaligned strategies (as discussed above) will also compound this problem.

Even with the passage of the EPR Act, **many gaps and details remain to be filled** (see discussion in Part 2d). While the government is mandated to develop a National Framework, there is no guarantee that this will be prioritized, leading to delayed implementation of the law, and slow down of interest among stakeholders. Ad hoc and piecemeal implementation may also be resorted to, leading to further confusion within the Philippine waste management system.

Chapter Overview and Key Points:

- Philippine environmental laws have generally been in step with global and international developments. Aside from early support for global environmental treaties and declarations, the country moved quickly to enact legislation to address urgent and emerging environmental issues and challenges.
- The Philippine legal and policy landscape on waste management can be characterized as one having the basic foundations in place for an overall framework for waste management.
- The institutional framework for waste management in the Philippines defines functions of the different agencies involved policy making and governance, regulatory compliance; and, voluntary actions.
- A SWOT analysis of the legal, policy, and institutional framework in the Philippines shows that although there are strengths and opportunities which have made an EPR law possible, weaknesses in the overall waste management system and emerging threats must be taken into account.



IV. FRAMEWORK AND ASSUMPTIONS FOR ANALYSIS

The passage of the EPR Act is an important development, as the importance of a legally binding framework, which clearly sets out the EPR system's modalities, the responsibilities of government and producers, and structures for monitoring and enforcing compliance, cannot be understated. This has proven to be a vital success factor for EPR implementation in many countries, while purely voluntary measures have seen little long-term security, financial viability and overall results.⁵³

However, it bears noting the EPR Act is but one component in the country's broader and more overarching EPR system. The elements and options discussed in the succeeding sections are not limited to those covered by the EPR Act, but also encompass the relevant mechanisms, regulations and guidelines outlined in Part II.

Stated otherwise – an EPR system will need to rely on more than one policy, and then even more than environmental policy, to be coherent, and ultimately, effective. In the Philippines in particular, aspects of EPR necessarily fall under the mandate of agencies and offices. EPR implementation will require local governments to mobilize, and for existing initiatives, such as those for Research and Development, eco-labelling and development of packaging alternatives, which are under specialized technical agencies, such as the DILG, DTI and DOST, to scale up. Regulations such as taxes and incentives will fall under the ambit of the DOF, BOC and BIR.

Moreover, it must also be emphasized that EPR cannot be expected to be a cure-all to the gamut of solid waste management issues that currently confront the country. It will be implemented within a larger context, and can therefore succeed or fail on the effectiveness of its foundation in the broader systems for governance in general, and environmental management, in particular. It must also be responsive to prevailing social, economic and cultural realities, if it is to be a viable long-term solution.

As such, the analyses and recommendations presented below are premised on clarity in the guidelines and mechanisms for implementation of the EPR Act. These will likewise hinge on the presence of underlying enabling conditions and priorities within the whole solid waste management system. These include effective measures for waste collection, segregation, transport, processing and disposal, and sufficient support for the development of packaging alternatives. The framework also includes a discussion of elements of an EPR scheme which will cover different types of plastic packaging.

A. Enabling conditions for an effective EPR System

The EPR system cannot operate in a vacuum and must be integrated into existing waste management systems. As noted in previous discussions on global trends in EPR, there is also no one-size-fits-all approach and each EPR system must be developed on a case-to-case basis, taking into account the country context and conditions. However, this does not mean that there is no common baseline by which EPR systems can start operating. There are several enabling conditions which need to be met in order for EPR to be a success.

The discussion that follows below will present some critical enabling conditions which the Philippines must first meet in order to ensure the success of the EPR system under the new EPR Act of 2022.

⁵³World Bank. *The Role of Extended Producer Responsibility Scheme for Packaging towards Circular Economies in APEC* (Washington DC: World Bank) 2022, 15



1. Strengthening downstream measures and ensuring a fully-functioning waste management system

A fully functioning waste management system is imperative for any EPR measures to succeed. Plastic waste must be properly collected and segregated, to facilitate proper reuse, recycling, recovery or disposal. However, in the Philippines, there are numerous challenges associated with this - waste collection rates vary greatly from LGU to LGU - from a 95 percent collection rate in highly urbanized areas, to a mere 15 percent in more remote locations.⁵⁴ Implementation of segregation measures has also been inconsistent, as most *barangays* lack the requisite Materials Recovery Facilities (MRFs). Waste segregation and recycling from the informal sector doubtless contributes significantly, but there is currently no credible data to paint an accurate picture of their involvement.

Even with the EPR Act, any gains from the system will not be realized unless these roadblocks are addressed. This will entail strategic and long-term efforts that are consistently implemented, ranging from full implementation of RA 9003, participation of all relevant stakeholders, and establishing up-to-date baselines for all components of the waste management system.

Moreover, the need for clear guidance and funding support for LGUs cannot be overstated. Cities and municipalities across the country have varied significantly in their solid waste management programs, due in no small part to the differences in population, geography and income, in addition to their human resources, infrastructure and facilities, and the waste that they generate. A national-level EPR scheme for any type of waste has to take these realities into account, if it is to avoid fragmented and inconsistent compliance.

2. Supporting a paradigm shift by instituting and enacting upstream measures

The Philippines is already saddled with more plastic waste than it can recycle, and faces high levels of waste leakage into natural environments. Data from 2019 cited in a WWF report found that only 9 percent of plastic waste in the Philippines is recycled.⁵⁵ In addition, a recent World Bank study⁵⁶ estimates that 63 percent of plastic waste in the country is low-value and unrecyclable (**Figure 3.1** below), which also speaks to the limited effectiveness of downstream measures.

⁵⁴ WWF. *EPR Scheme Assessment for Plastic Packaging Waste in the Philippines* (October 2020) https://wwf.org.ph/wp-content/uploads/2021/03/WWF_REPORT_EPR_Philippines_11Mar21.pdf, 12.

⁵⁵ WWF. *EPR Scheme Assessment for Plastic Packaging Waste in the Philippines* (2021) https://wwf.org.ph/wp-content/uploads/2021/03/WWF_REPORT_EPR_Philippines_11Mar21.pdf

⁵⁶ World Bank. *Market Study for the Philippines: Plastics Circularity Opportunities and Barriers* (2021) Washington DC: World Bank Group

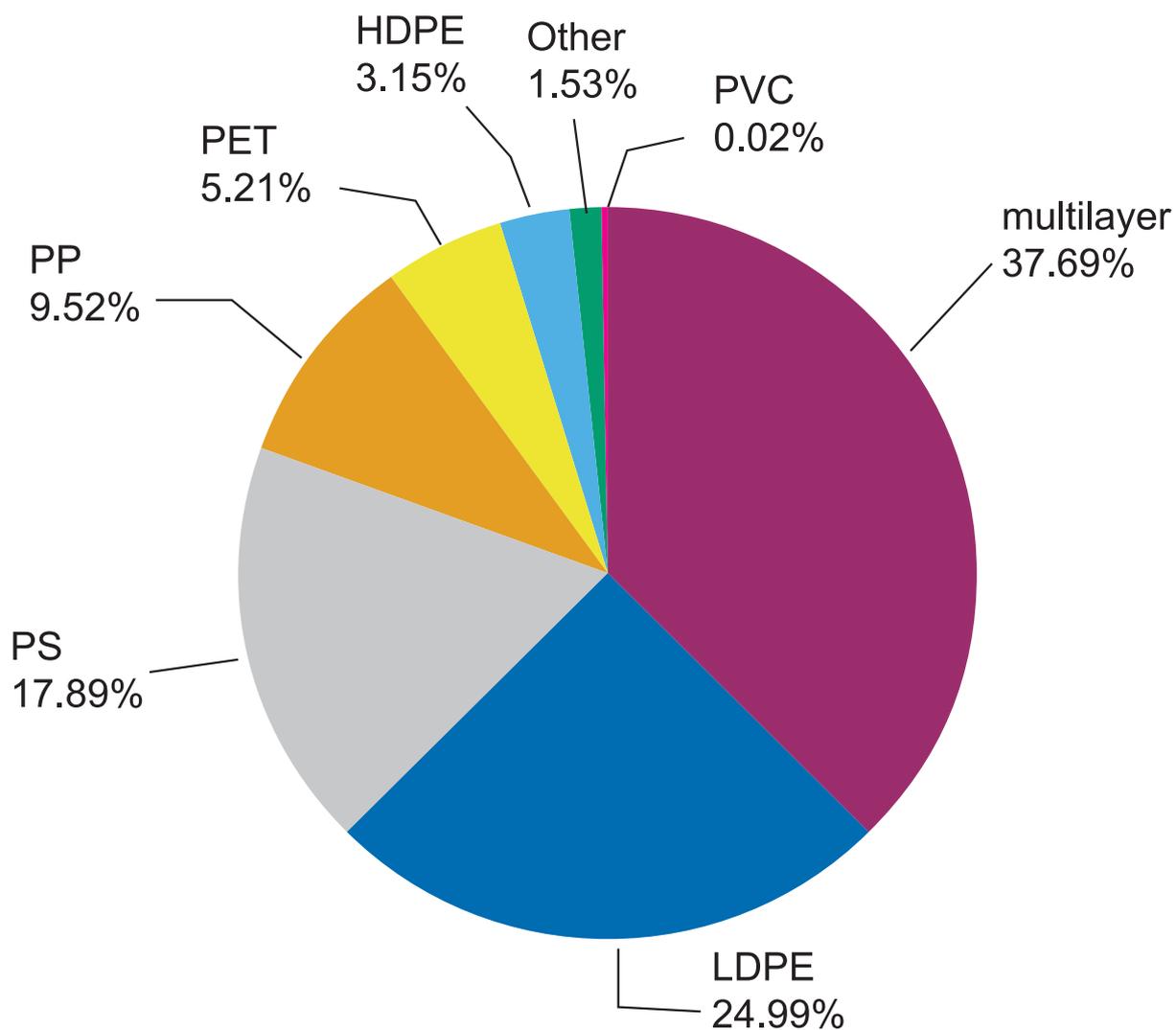


Figure 3.1 - Plastic waste composition (World Bank 2021)

As a result, it is highly likely that it will take a long time before benefits of new downstream efforts can be felt. Long-term solutions to the plastic waste crisis will therefore require a paradigm shift that foregrounds and prioritizes upstream measures for solid waste management. These include:

- Product and supply chain redesign;
- Research and development for the production of alternatives;
- Improved use of materials; and,
- Shifts in consumer preferences and behavior.

Success factors for EPR have been identified in previous scoping studies. Some are summarized in **Figure 3.2** below.

It is generally assumed that additional guidelines and standards will be provided for in the National Framework and other mechanisms under the EPR Act. It bears repeating that this clarity is vital, even before EPR options that are specific to packaging types can be considered.

Figure 3.2 - EPR Criteria (World Bank 2022)

Criteria for successful EPR scheme	Challenges to EPR scheme
Regulations and monitoring	
<ul style="list-style-type: none"> • The scope of producer responsibility is unambiguously defined and regulated in law • The monitoring agencies are experienced with control and development of verification documentation • Certifying, controlling and monitoring systems are established • Extensive information provided to the public • Regulators are consistently conducting controls and penalizing actions that are not conforming to the existing law • Cooperation with industry associations • The individual actors are collaborating well • The public actors are not corrupt and actively fight corruption 	<ul style="list-style-type: none"> • The responsibilities and tasks are not clearly defined • Competing legislation of the involved ministries and agencies • The fees are not spent on EPR tasks but spent as part of the general public expenses or as part of public funds • Monitoring agencies are not experienced with document verification and control of verifications • Undeveloped certification schemes • No transparency to the public • No monitoring and controlling in place • No cooperation with the industry • Individual actors are quarrel and compete with each other • Corrupt public actors and decision makers
Producer responsibility organization (for waste management subject to EPR legislation)	
<ul style="list-style-type: none"> • PRO fulfills all its tasks • Employs enough staff and is well equipped in regard to hardware and software • Experienced with databases, balances, tenders and contracts • Successfully implements the EPR system and thoroughly controls the services and tasks of the other involved actors 	<ul style="list-style-type: none"> • PRO does its work insufficiently • No experience regarding databases, balances, tenders and contracts • Is corrupt and accepts corruption payments • Does not or insufficiently builds up the EPR system • Does not control any services or tasks of the involved actors

Producers and importers	
<ul style="list-style-type: none"> • Operations adhere to environmental and social welfare standards • Are well informed about the existing recycling possibilities and capacities within the respective member economy and consider them in their packaging and/or product design • For EPR systems: all obliged companies are registered with the PRO • For EPR systems: the obliged companies know the exact quantities and material fractions, and pay the corresponding amount of fees to the PRO • There are no illegal imports 	<ul style="list-style-type: none"> • The companies do not regard existing recycling capacities in their packaging and/or product design, thus putting goods on the market that cannot be recycled within the respective member economy • Do not work within environmental standards and/or social welfare standards • For EPR systems: The obliged companies are not registered and do not pay their fees • The companies do not know the quantities and exact material fractions of their packaging • Companies import illegally • For EPR systems: Corrupting the PRO to pay less fees for waste subject to EPR legislation
Waste management operators – collection, recycling	
<ul style="list-style-type: none"> • The collection points are clear and accessible, and a good infrastructure is set up • Waste management companies fulfill their contracts • Waste management operators inform the public about the waste management system • Work within the environmental standards and social welfare standards • Conduct transparent and appropriate mass flow balances 	<ul style="list-style-type: none"> • The collection points are unclear and hardly accessible • Do not build up a good waste infrastructure • Do not fulfill their contracts • Corrupting the PRO • Do not inform the public • Do not work within environmental standards and/or social welfare standards • Do not conduct or conduct false mass flow balances • Informal sector is not integrated and works “against” or outside the system
Consumer – purchases through distributor and later disposal	
<ul style="list-style-type: none"> • High levels of public awareness and education related to environmental impacts • All residents have access to the collection system • All residents are well informed about the system and separate their waste according to the system’s regulations 	<ul style="list-style-type: none"> • No environmental awareness or education • Low level of education • No access to collection systems • Not informed about the system

Figure 3.2 - EPR Criteria (World Bank 2022)

3. Suitably defined stakeholder roles and responsibilities

Of these criteria, a Producer Responsibility Organization (PRO) is especially critical. A PRO is recognized as a critical, if not the most important, element of an EPR system.⁵⁷ Although the EPR Act prefers that the PRO be a voluntary option, this still allows for opportunities to establish a credible, transparent and efficient set up.

It is strongly recommended that a mandatory EPR system for the country should provide for a third-party PRO. Models have already been proposed for this - for example, WWF Philippines has recommended one non-profit, industry-led and multi-stakeholder PRO, who can assume the responsibilities of registration, collection and administration of funds, documentation, outreach, service controls and verification.⁵⁸

This report also looked at the PRO models of several select countries.⁵⁹ Though with different models and schemes, the different countries have some commonalities in terms of PROs. First, all countries provide for a private-sector led and organized PRO, which in some cases needs government approval to operate.

⁵⁷World Bank. *The Role of Extended Producer Responsibility Scheme for Packaging towards Circular Economies in APEC* (Washington DC: World Bank) 2022, 15

⁵⁸WWF. EPR Scheme Assessment for Plastic Packaging Waste in the Philippines (2021) https://wwf.org.ph/wp-content/uploads/2021/03/WWF_REPORT_EPR_Philippines_11Mar21.pdf, 9, 59.

⁵⁹These countries include: France, Germany, the United Kingdom, Canada, South Korea, Japan, Vietnam, Indonesia, Norway, and Australia.

Majority of PROs are also not-for-profit, with some models for a for-profit PRO such as in Germany. In most countries, obliged companies can do an individual EPR program, or choose to join a PRO. However, more often there is already one or several fully functioning PRO which operationalizes the EPR system for majority of obliged companies. Finally, in almost all jurisdictions the national and local governments have clear roles and responsibilities in their coordination and supervision of the PROs.

The success of any EPR system also hinges on the actions and compliance of the different stakeholders. Government policy makers need to enact clear and unambiguous policies, whilst environmental regulators need to ensure proper compliance and enforcement. Local governments must ensure implementation of general waste management laws such as proper segregation and collection to contribute to the success of the EPR system. Obligated companies and the PRO, if any, must also meet and comply with the mandatory provisions and targets of the law. Consumers on the other hand must be ready for the cultural and economic shift which EPR implementation may bring into society.

Table 3.1 below presents some of the critical roles and responsibilities of EPR stakeholders, applicable for the Philippine context.

Stakeholders	Roles and responsibilities
National government (policy-maker)	<ul style="list-style-type: none"> • <i>Legislation and supervision of the EPR system, including definition of sanctions and incentives</i> • <i>Setting of EPR targets based on scientifically conducted research including stakeholder engagement (this would also require a prior stakeholder dialogue, though final decision belongs to government)</i>
(Environment) authority	<ul style="list-style-type: none"> • <i>Executing and enforcing the policy through monitoring and supervising all elements of the system</i> • <i>Running the register for producers and WMOs (including LGUs if they take over operational tasks)</i> • <i>Imposing penalties</i> • <i>Guidelines on operationalisation</i> • <i>Supporting Education and Awareness?</i> • <i>Supporting R&D?</i>
Producers (Manufacturers and importers of products in scope)	<ul style="list-style-type: none"> • <i>Put packaged goods and other SUPs on the market by selling imported or locally manufactured products to retailers (and sometimes directly to end consumers)</i> • <i>Assume EPR, i.e. are responsible that waste from their products (or equivalents) is properly collected, transferred, sorted and treated (recycling or disposal) by setting up an adequate take-back mechanism</i> • <i>Possibility to individually assume EPR through organising and financing a take-back mechanism; or collectively assume EPR through joining/ setting up a PRO (depending on respective provisions in EPR legislation). In collective EPR systems, the responsibility is either financial in form of monetary contributions or operational with the PRO establishing reverse chain through a network of subcontractors</i> • <i>Producers can also design their products for compatibility with the waste management infrastructure (eco-design), e.g. by using materials and items that can easily be recycled or using a high content of recyclates.</i> • <i>Register the amount and type of packaging/ products put on the market and proof their end-of-life management (potentially through PRO)</i>

Producer Responsibility Organization (PRO)	<ul style="list-style-type: none"> • Allows the producers to assume EPR collectively; collects fees from producers equivalent to the expenditure caused by their products • Collection and administration of all funds from the producers while ensuring fair costs and therefore not harming the competitiveness of a participating company • Designing and operating a waste take-back chain (unless they operate under a pure financial model) • Tendering and contracting for collection and recycling of the waste resulting from the products / packaging in scope of the EPR system • Documentation of collection, sorting and recycling of waste resulting from the products in scope of the EPR system • Informing and educating all waste producers and consumers about the importance of an environmentally sound waste management, including aspects like separate collection • Monitoring all services that have been awarded to service providers, specifically services relating to the fulfilment of collection and recycling by WMOs • Financing all of the system's tasks with funds provided by the producers • Perform audits of customers and suppliers as directed by law or as deemed necessary • Documentation and verification to the supervisory authorities: The PRO has to prove that it has completely fulfilled all its tasks and aims and used the paid fees of the producers accordingly
Waste Management Operators (WMOs)	<ul style="list-style-type: none"> • Services for collection, transfer, sorting and treatment of waste in accordance with all laws and the requirements of the EPR system • At least collection activities usually require at least the coordination, oftentimes also the collaboration with LGUs, other steps like recycling are commonly rather run by private enterprises • Also LGUs can act as WMOs (typically for collection and/ or sorting) with same requirements applying • Includes the informal sector, yet requires a certain level of formalisation (register, monitoring of activities) • Need to be registered for their respective field of activity and register the amount and type of waste managed
Consumers	<ul style="list-style-type: none"> • Correctly dispose of products in scope of EPR, therefore enable collection separate from residual waste; ideally with waste separation at source to ensure high-quality recycling. • No financial contribution (costs are borne by the producers), i.e. dispose of waste for free
Local level governments (LGUs)	<ul style="list-style-type: none"> • Linkages between consumers and WMOs through information and communication and support of collection. • Can take over certain parts of the waste management operations; in that regard, can also be WMOs (refer there) • Monitor the system implementation (WMOs activities) at the local level (e.g. collection coverage) • Can receive financial payment for the work they perform under EPR (collection, sorting, education...)
Third party auditors	<ul style="list-style-type: none"> • Verify reported information is according to the monitoring requirements • Familiar with general compliance aspects and specific (plastic) waste management expertise
Raw material suppliers, manufacturers and converters of packaging material	<ul style="list-style-type: none"> • Provide packaging material for producers – either from virgin material or secondary resources (recyclates; where applicable according to grade of application, such as only food grade recyclates in food packaging applications). • Their packaging design is a crucial determinant for the reusability and recyclability of the packaging waste.
Distributors & retailers of packaged goods (supermarkets, stores, other vendors)	<ul style="list-style-type: none"> • Interface between the producers and end consumers of products. • In many EPR systems, retailers also have take-back obligations for packaging, e.g. by providing separate bins for glass, paper, plastics and other material fractions. • Can also contribute to informing their customers about environmentally sound waste handling.
NGOS/ CSOs; international development organisations	<ul style="list-style-type: none"> • Support policy development through initiatives and campaigns and advisory role; facilitating shared experiences from other contexts and consult on best practices
Others – expert groups; research institutions	<ul style="list-style-type: none"> • Support the sector by running research and fulfilling an advisory role, e.g. concerning the setting of targets

Table 3.1 – Roles and Responsibilities of Stakeholders (World Bank, 2022 upcoming)

B. Elements of an EPR Scheme

An analysis and study of the existing body of research and work on EPR point to several elements which need to be considered for a successful EPR scheme. The recommended scheme/s of this study will take into account these elements and its relevance within the Philippine context. These are described below in **Table 3.2**.

Elements	Description	Relevance and Importance to EPR for the Philippines
Taxes, Municipal Fees, and EPR System Fees	<ul style="list-style-type: none"> Funds that are to be used for waste management and operationalization of the EPR system Taxes are generally paid to the national government for use or sale of certain products (e.g., SUPs), or for overall waste management operations Municipal fees are paid to local governments for waste management operations within their jurisdiction which form part of the EPR system (i.e., collection of products covered under the EPR scheme). These are generally paid by consumers (i.e., households, commercial establishments) to the local governments EPR system fees are paid by the obliged companies to either a central authority or body that operates and oversees EPR implementation (e.g., the PRO), a waste management operator, or to the local governments for at-source segregation and collection 	<ul style="list-style-type: none"> Ensures funding for government regulators and oversight, and for overall waste management operations critical for EPR success Provides for funds for EPR system operationalization which includes building and operating waste management and recycling facilities
Incentives	<ul style="list-style-type: none"> Fiscal and non-fiscal incentives for both obliged companies and consumers for EPR compliance Fiscal incentives can be tax deductions and exemptions, duty-free importation, and waived government permit fees Non-fiscal incentives can include long-term leases of government properties for EPR facilities and infrastructure, and eased visa procedures and employment of foreign nationals, among others Fiscal incentives for consumers can include discounts for refilling and bring-your-own schemes, and credits and refunds for packaging/item returns 	<ul style="list-style-type: none"> Encourages the needed investments and funds especially for waste management and recycling infrastructure Promotes and rewards compliance by both obliged companies and consumers Complements and augments limited government funding for waste management operations
Product Redesign	<ul style="list-style-type: none"> Provides for mandatory design requirements as to the form, materials used, or specific recycled content, among others Includes the promotion and use of natural (including indigenous) materials Involves studies on proper biodegradability (including its certification) and use of the same for packaging Redesign can also involve proper labelling and product identification 	<ul style="list-style-type: none"> Helps to make products more recyclable and suitable for EPR facilities and infrastructure Reduces the amount of new and virgin material used for plastic products Contributes to reducing waste leakage into the open environment through the use of natural and biodegradable products

Bans and Phase Outs	<ul style="list-style-type: none"> • Provides for the mandatory ban of certain types of products or packaging deemed environmentally harmful or non-environmentally acceptable • Can also include products which are highly polluting, or difficult to recycle or re-use • Measures can also include legally mandated reduction in the use of certain types of packaging; or limiting its use only for particular products or circumstances 	<ul style="list-style-type: none"> • Helps reduce the amount of plastic products and packaging that leaks into the open environment • Measures target problematic products which are hard to collect and are highly polluting • Encourages (or in some instances mandates) producers and manufacturers to re-design products in light of mandatory bans and phase-outs • Drives innovation and research and development of economically and socially viable, and environmentally safe and acceptable alternatives
Collection, Reduction and Recycling Targets	<ul style="list-style-type: none"> • Provides for clear and mandatory targets which obliged companies and other stakeholders must follow • Collection (diversion) of plastic waste shall be treated separately from reduction and recycling targets • Reduction targets are set with a phase-out or limited use in mind • Recycling targets take into account current best technologies available within the country context 	<ul style="list-style-type: none"> • Ensure clear and unambiguous standards and targets which obliged companies need to comply with • Allows for better auditing, monitoring, and enforcement by government authorities and concerned stakeholders • Enables business and other affected stakeholders to appropriately plan and prepare, including determining the needed investments and capital expenditures
Processing and Disposal Facilities and Technology	<ul style="list-style-type: none"> • Identifies the appropriate technology to be used for recycling and or processing of plastic waste and packaging • Determines the proper disposal method for end-of-life and non-recyclable products • Complements other waste management facilities and infrastructure 	<ul style="list-style-type: none"> • Ensure that EPR covered products are properly handled, either through the appropriate recycling technology or final disposal • Allows for proper monitoring to ensure that there is no harm to human health or the environment from the identified methods and technologies • Utilizes the best available and most optimal technologies given the country context

Voluntary Mechanisms	<ul style="list-style-type: none"> • Private sector, industry, or consumer-led initiatives which aid in compliance or complement mandatory EPR laws and policies • Can be those in operation and implementation prior to mandatory EPR provisions • With set minimum compliance standards to be verified and/or certified by relevant authorities 	<ul style="list-style-type: none"> • Allows for some room for flexibility in compliance with EPR provisions, especially at early stages of implementation • Allows local communities and private sector partners to use the best available methods, schemes, and technologies within the local context • Encourages voluntary participation and support for the EPR system and its goals and targets
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Table 3.2 – Elements of an EPR Scheme

Chapter Overview and Key Points:

- An EPR system, including one in the Philippines, will need to rely on more than one policy, and then even more than environmental policy, to be coherent, and ultimately, effective.
- The EPR system cannot operate in a vacuum and must be integrated into existing waste management systems. There are several enabling conditions which need to be met in order for EPR to be a success.
- Existing downstream measures and proper implementation of the waste management system must be pursued. Similarly, upstream measures must be given equal priority. Suitably defined stakeholder roles and responsibilities will help in the success of the EPR System.
- An analysis and study of the existing body of research and work on EPR point to several elements which need to be considered for a successful EPR scheme for the Philippines.



IV. Implementing Mandatory EPR in the Philippines

The proposed activities and strategies in the EPR Act are quite broad, and it is difficult to see how some of these will translate into quantifiable contributions toward the recovery or offset targets. Nevertheless, the private sector can be expected to scale up many of its efforts, including those which are already provided for under national and local policy.

Present policy does not commonly distinguish plastic waste according to type. Save for more technical applications (such as in the areas of food safety and use as fuel), regulations are usually framed broadly around “Single Use Plastics (SUPs)” or “disposable packaging.” The EPR Act itself lists “plastic packaging covered by EPR,”⁶⁰ but does not presently prescribe specific measures for each general classification.

In addition to compliance with the regulations on sale and distribution, additional obligations and optional measures are imposed on the private sector, as seen in **Table 4.1** below. Where general distinctions are made, primarily in the case of local-level regulations, these are indicated.

	Reduction of Non-Environment Friendly Products ⁶¹	Product Waste Recovery Programs to Prevent Product Waste Leakage ⁶²
Plastic Bags (Polymer Bags and SUP Bags)	<p>Mandatory Measures at local level</p> <ul style="list-style-type: none"> SUP bag phase outs and bans at the local level have included: <ul style="list-style-type: none"> Mandatory annual reporting for relevant retailers on the distribution of SUP bags and the purchase of reusable bags, as a prerequisite for the issuance of an Environmental Clearance (Quezon City) or business license (Mandaluyong City)⁶¹ Mandatory Incentive Schemes implemented by relevant retailers for consumers who avoid using SUP bags. Implementation of these shall be reported to the city (Quezon City)⁶² 	<p>Mandatory Measures at local level</p> <ul style="list-style-type: none"> SUP bag phase outs and bans at the local level have included: <ul style="list-style-type: none"> Mandatory programs for recyclables trading activities in shopping malls. Malls may sell the SUP bags and other recyclables that they accumulate to the recyclers of their choice, or to the waste markets provided by the city (Quezon City).⁶³

⁶⁰Sec. 44c lists the following: A) Sachets, Labels, Laminates and other Flexible Packaging Products, whether single layer or multi-layered with plastics or other materials; B) Rigid Plastic Packaging Products, whether layered with any other materials which include containers for beverages, food, home, personal care and cosmetic products including their coverings, caps, and/or lids; C) Plastic Bags, which refer to Polymer Bags, which include SUP bags, designed for carrying or transporting of goods, and provided or utilized at the point of sale; D) Plastic Products on items sold by manufacturers, in business to business transactions or otherwise not intended for sale to the general public; E) Polystyrene and F) Multi-layer plastic packaging, which is any packaging material having at least one layer of plastic in combination with one or more layers of a different material, to include paper, paper board, polymeric material, metalized layer or aluminum foil, either in the form of a laminate or co-extruded structure.

⁶¹Quezon City - Implementing Rules and Regulations of Ordinance No. 2868 series of 2019 (1 January 2020) Section 5 <https://quezoncity.gov.ph/wp-content/uploads/2020/09/IRR-SP-2868-S-2019.pdf>; Mandaluyong City - Ordinance no. 668 series of 2017 (8 August 2017) Section 31 <https://www.mandaluyong.gov.ph/updates/downloads/files/ORD%20NO.%20668,%20S-2017.pdf>

⁶²Quezon City - Implementing Rules and Regulations of Ordinance No. 2868 series of 2019 (1 January 2020) Section 13

⁶³Quezon City - Implementing Rules and Regulations of Ordinance No. 2868 series of 2019 (1 January 2020) Section 12



Food Packaging and SUPs (Polystyrene, Plastic Utensils, Take-out containers and other rigid plastic packaging)	<p>Mandatory Measures at national level</p> <ul style="list-style-type: none"> NSWMC Resolution 1428 series of 2021⁶⁴ declared plastic soft drink straws and plastic coffee stirrers as Non-Environmentally Acceptable Products. According to the DENR, private stakeholders would be given one year to phase out these products,⁶⁵ but beyond scattered announcements from some FMCGs,⁶⁶ it is not clear how much this has been enforced. <p>Non-Mandatory Measures at local level</p> <ul style="list-style-type: none"> Bans on specific SUPs (plastic cutlery, food packaging) have included: <ul style="list-style-type: none"> Provisions on “encouraging” the use of alternative packaging and providing incentive schemes for consumers who avoid SUPs.⁶⁷ 	<p>- No targeted measures -</p>
Flexible Plastic Packaging (including sachets, and other single-layer and multi-layer packaging)	<p>No targeted measures -</p>	<p>No targeted measures -</p>
Other Plastic Waste	<p>- No targeted measures -</p>	<p>Non-Mandatory Measures at country level (Plastic from Waste Electrical and Electronic Equipment)</p> <ul style="list-style-type: none"> Dismantled and segregated Polybrominated Diphenyl Ethers (PBDE)-containing plastic from Waste Electrical and Electronic Equipment may be used as alternative fuel and raw material in cement kilns.⁶⁸

⁶⁴ NSWMC Resolution 1428 series of 2021 (2 February 2021) <https://nswmc.emb.gov.ph/wp-content/uploads/2021/06/2021-NSWMC-RESO-NO.-1428-series-of-2021-NEAP-Plastic-Softdrink-Straw-and-Stirrer1.pdf>

⁶⁵ Teves, Catherine, “Race on to phase out plastic straws, stirrers,” *Philippine News Agency* (28 June 2021) <https://www.pna.gov.ph/articles/1145257>

⁶⁶ See: Business World, “Coca-Cola Philippines plans to phase out sachets by 2022,” *Business World Online* (2 November 2021) <https://www.bworldonline.com/corporate/2021/11/02/407654/coca-cola-philippines-plans-to-phase-out-sachets-by-2022/>

⁶⁷ See: Tuguegarao City - Ordinance 46-2018 (27 November 2018) Sections 6 and 8 <https://tuguegarao.city.gov.ph/public/files/issuances/2018/ORDINANCE/ORD.%20NO.%2046-2018.pdf>, Caloocan City - Ordinance no. 0503 series of 2013 (30 September 2013) Section 7

⁶⁸ DENR Department Administrative Order 2021-14 (24 May 2021) https://emb.gov.ph/wp-content/uploads/2021/10/DAO-2021-14_published-already.pdf

<p>Broad application</p>	<p>Non-Mandatory Measures at country level</p> <ul style="list-style-type: none"> The Eco-labeling program under the DTI and PCEPSDI is currently voluntary, but could expand if the Green Procurement program under Executive Order 301 (2004) is implemented strictly. <p>Mandatory Measures at local level</p> <ul style="list-style-type: none"> SUP bag bans at the local level have included: <ul style="list-style-type: none"> Mandatory annual reporting - In Davao City, a “plastic usage and disposal audit report” is imposed on establishments that have secured a special permit to distribute and/or use SUP products, which cover a broad range of food packaging, including those made of polystyrene, PET plastic and multi-layer plastic, among others. Penalties are imposed for misdeclaration.⁶⁹ 	<p>Non-Mandatory Measures at country level</p> <ul style="list-style-type: none"> Segregated municipal solid waste and residual waste may be used as alternative fuel and raw material in cement kilns, or in Waste Energy facilities.⁷⁰ <p>Mandatory Measures at local level</p> <ul style="list-style-type: none"> Environment Codes, Waste Management Codes and Zero Waste Ordinances at the local level have included: <ul style="list-style-type: none"> Mandatory provision of labeled receptacles for waste segregation from certain establishments (Mandaluyong City, Batangas City).⁷¹ Mandatory waste segregation for commercial establishments as a requirement for the issuance or renewal of their business permits (Alaminos City)⁷²
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Table 4.1 - Potential EPR Measures in National and Local Policies

*Under Sec. 44a of the EPR Act, these can include the following measures: 1) Adoption of Reusable Products, or Redesign of the Products to Improve its Reusability, Recyclability, or Retrievability; 2) Inclusion of Recycled Content or Recycled Materials in a Product; 3) Adoption of Appropriate Product Refilling Systems for Retailers; 4) Viable Reduction Rates Plan; 5) Information and Education Campaign Schemes; and 6) Appropriate Labeling of Plastic Products, including the Information thereon for the Proper Disposal of the Waste Product

** Under Sec. 44a of the EPR Act, these can include the following activities: 1) Waste Recovery Schemes through Redemption, Buy-Back, Offsetting, or Any Method or Strategy that Will Efficiently Result in the High Retrievability, Recyclability, And Resource Recovery Of Waste Products; 2) Diversion of Recovered Waste into Value Chains and Value-Adding Useful Products through Recycling and other Sustainable Methods; 3) Transportation of Recovered Waste to the Appropriate Composting, Recycling, and other Diversion Or Disposal Site in the Country; 4) Clean-Up of Waste Leaked to Coastal Areas, Public Roads, and other Sites; 5) Establishment of Commercial or Industrial Scale Recycling, Composting, Thermal Treatment, and other Waste Diversion or Disposal Facilities for Waste Products, when Investment therein is Viable; and 6) Partnership with LGUs, communities and the informal waste sectors.

Table 4.1 above shows how many mandatory measures for the private sector are local-level requirements. However, while clear obligations to implement waste management actions are important, those prescribed by local ordinances are understandably limited to what is within the LGU’s authority. As such, these are relatively “softer” measures, including minimal penalties for violations of SUP bans and non-issuance of local permits and clearances, which can hardly be considered deterrents for larger companies.

Also notable is the heavy focus on downstream measures, targeting packaging that has already become

⁶⁹ Davao City - Ordinance no. 0500-21 (25 March 2021) Sections 5, 6 and 10 <https://idisphil.org/wp-content/uploads/2019/02/Ordinance-No.-0500-21-Single-Use-Plastic-Ordinance.pdf>

⁷⁰ DENR Department Administrative Order 2021-14 (24 May 2021), DENR Department Administrative Order 2019-21 (26 November 2019) <https://denr.gov.ph/uploads/rmdd/dao-2019-21.pdf>

⁷¹ Mandaluyong City - Ordinance no. 668 series of 2017 (8 August 2017) Section 26, Batangas City - Environment Code Ordinance no. 16 series of 2010 Section 82 (13 December 2010) <https://www.batangascity.gov.ph/web/images/Offices/LEIPO/Environment-Code.pdf>

⁷² Alaminos City - Ordinance no. 2009-05 (4 September 2009) Section 19 <http://www.alaminoscity.gov.ph/public-service/local-policies/Legislative%20Issuances/CityOrdinances%20-%20ENACTED/2009Ordinances/AlaminosCityOrdinance2009-05.pdf>

waste, illustrating the need to increase upstream measures as discussed in Part III as one of the critical enabling conditions. Current measures impose obligations on retailers and business establishments, with additional costs borne by consumers and end-users. Some local governments also apply a less stringent approach to the bans themselves, as retailers and private establishments are merely “encouraged” to promote alternatives or provide incentives to consumers, but also in the suggested activities under the consolidated EPR Bill. Upstream measures, such as redesign of packaging, is only one in a suite of strategies, and as such, can be less of a priority for companies, many of whom already have downstream efforts in place.

Chapter Overview and Key Points:

- The proposed activities and strategies in the EPR Act are quite broad, and it is difficult to see how some of these will translate into quantifiable contributions toward the recovery or offset targets.
- In the implementation of the EPR Act, stakeholders – in particular obliged companies – need to take into account existing measures at the national and local levels which impact EPR implementation.
- Mandatory measures which focus on downstream requirements must also include upstream measures to effectively deal with the waste problem, and contribute to the EPR system.



V. EPR Options for Plastic Packaging

The previous sections guided the readers through the concept of EPR and its applicability in the Philippine context. The report began with a scoping of EPR experiences around the world. This provided a glimpse of best practices and trends on EPR which the Philippines can learn from. The country’s legal, policy, and institutional landscape was then summarized. Existing laws, policies, and institutions provide the necessary backbone for EPR implementation. A discussion on enabling conditions and essential elements of an EPR system were then presented, highlighting the fact that EPR cannot operate in a vacuum and other conditions and elements need to be met.

These all provided the necessary background information and basis for the discussion different EPR options for plastic packaging in the Philippines. As presented in **Figure 5.1** below, at the start of any EPR implementation, several enabling conditions (as discussed above) need to be met and complied with to ensure the system’s success. Once these enabling conditions are met, the different EPR options for specific types of packaging need to consider the different elements which make up a successful EPR scheme. Each plastic packaging type covered must comply with specific requirements under each element. Finally, several cross cutting measures need to be taken into account in the implementation of each EPR option. These need to be accounted for to avoid issues and complications once the system is operationalized.

The section will begin with a discussion of the recommended options for each type of packaging. This will be followed by an outline of the cross-cutting measures which also serve as additional recommendations to support each option. The section will conclude with a brief discussion of pros and cons for each recommended option.

A. Recommended Options

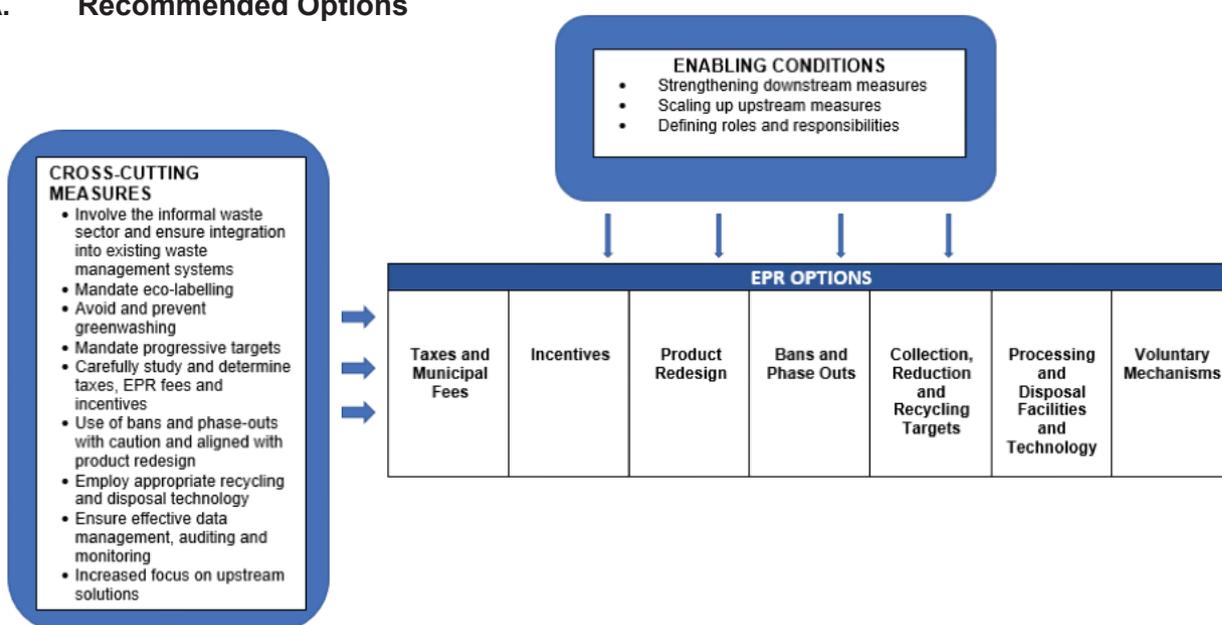


Figure 5.1 – Diagram of Recommendations



Table 4.1 above shows that many mandatory waste management measures are intended for broad application - and apply to “SUPs” or “segregated wastes” generally and make no distinctions as to the type of plastic packaging waste. Nevertheless, it is **strongly recommended that any future EPR schemes distinguish between types of plastic packaging** - whether on the basis of their function, or the type or composition of the material, **with specific targets for each type as much as possible**. The current broad measures have not allowed for targeted prioritization of the most pressing areas of concern and/or low hanging fruit, and this has contributed to the uneven implementation of downstream vis-a-vis upstream efforts.

Tables 5.1 to 5.3 below reflects recommendations for an initial classification of plastic waste, analyzed and discussed based on elements of EPR that have been discussed above. The initial classification of plastic waste was made considering the following:

- Plastic waste that has been identified as those of concern in the Philippines, whether by government, the academe, or by NGOs and CSOs;
- Types of plastic and waste which are generally covered in EPR schemes of other countries, with appropriate and available technologies;
- Plastics that have been covered in recently proposed EPR laws and policies; and,
- Recent studies and reports which have looked at waste management, EPR, and circular economy in the Philippines.

As discussed in Part III of this report, these recommendations cover a broad range of options, including those covered by the EPR Act, and other relevant mechanisms, regulations and guidelines pertinent to solid waste management, environmental issues, trade and commerce, and research and development. This is consistent with the view that EPR must be a system, and not just a singular law.

It should also be noted that **the proposed schemes per type of plastic packaging assumes that the enabling conditions for EPR** (discussed in Part III) **have been met and are being fully and properly implemented**. As such, absent the enabling conditions, it may be difficult to meet and comply with the elements for each type of plastic packaging.

Plastic bags, including Polymer bags and SUP bags	
Taxes, Municipal Fees, and EPR System Fees ^a	<i>Paid for by obliged companies. ^b</i>
Incentives	<p>For producers and manufacturers: <i>Product re-design ^c</i> <i>Take-back and/or return and collection scheme</i></p> <p>For distributors, retailers, and sellers <i>Product re-design</i> <i>Nonuse of plastic bags</i> <i>Take-back and/or return and collection schemes</i></p> <p>For consumers: <i>Use of personal bags or refusing use of plastic bag/s</i></p>

Product Redesign	<i>For producers and manufacturers but will need clear standards and guidelines promulgated to ensure consistent implementation</i> <i>Recommended expansion of voluntary eco-labeling program ^d</i>
Bans and Phase Outs	<i>For phase-out with clear timeframe and targets ^e</i>
Collection, Reduction and Recycling Targets	<i>Independent progressive targets for collection/diversion and recycling recommended (with a view to phase-out)^f</i>
Processing and Disposal Facilities and Technology	<i>Final disposal in sanitary landfills or for co-processing under strict standards and conditions</i>
Voluntary Mechanisms	<i>Allowed for obliged companies, subject to compliance with minimum standards set under the EPR system</i>

Table 5.1 – Options for Plastic Bags, including polymer bags and SUP bags

Food packaging, including PET bottles and single use items such as polystyrene containers, plastic utensils, and other rigid plastic packaging	
Taxes, Municipal Fees, and EPR System Fees	<i>Paid for by obliged companies and/or the consumer</i>
Incentives	<i>For obliged companies</i> <i>For product re-design</i> <i>Non-use of SUPs and plastics in food packaging</i> <i>Take-back and/or return and collection scheme</i> <i>For consumers:</i> <i>Use of personal containers, bags, utensils, etc.</i>
Product Redesign	<i>For producers and manufacturers but will need clear standards and guidelines promulgated to ensure consistent implementation</i> <i>Mandatory use of recycled content for certain types of products and packaging where appropriate and if full recycling not possible</i> <i>Recommended expansion of voluntary eco-labeling program</i>
Bans and Phase Outs	<i>For phase-out with clear timeframe and targets of certain type such as:</i> <i>Polystyrene</i> <i>Plastic utensils and cutlery</i> <i>Plastic wrapping (cling wraps)</i> <i>Other plastic items for reduction of use (where applicable)</i>
Collection, Reduction and Recycling Targets	<i>Independent progressive targets for collection/diversion and recycling recommended (with a view to phase-out)</i>
Processing and Disposal Facilities and Technology	<i>Strict recycling for high value and recyclable items such as PET bottles and rigid plastic packaging.</i> <i>Obliged companies and/or the PRO required to establish recycling facilities with appropriate technologies</i>
Voluntary Mechanisms	<i>Allowed for obliged companies, subject to compliance with minimum standards set under the EPR system</i>

Table 5.2 – Options for Food packaging, including PET bottles and single use items such as polystyrene containers, plastic utensils, and other rigid plastic packaging

Flexible plastic packaging, including sachets, and single-layer and multi-layer packaging	
Taxes, Municipal Fees, and EPR System Fees ^a	<i>Paid for by obliged companies</i>
Incentives	<i>For product re-design and non-use of SUPs and plastics in food packaging</i>
Product Redesign	<i>Recommended for producers and manufacturers, in addition to current downstream efforts</i> <i>Recommended expansion of voluntary eco-labeling program</i>
Bans and Phase Outs	<i>For phase-out of unnecessary packaging with clear timeframe and targets^g</i>
Collection, Reduction and Recycling Targets	<i>Independent progressive targets for collection/diversion and recycling recommended (with a view to reduction use and eventual phase-out)</i>
Processing and Disposal Facilities and Technology	<i>Final disposal in sanitary landfills or for co-processing under strict standards and conditions</i>
Voluntary Mechanisms	<i>Allowed for obliged companies, subject to compliance with minimum standards set under the EPR system</i>

Table 5.3 – Options for Flexible plastic packaging, including sachets, and single-layer and multi-layer packaging

Notes for the tables:

^a Taxes and municipal fees are EPR fees paid to the national government (i.e., to the Solid Waste Management Fund under RA 9003) or to specific local government units (via local ordinances which specify the same). These should go directly to EPR-related activities and actions. Under current law, some local governments charge its residents waste management fees which can be used for EPR collection. Under the EPR Act of 2022, there is not clear guidance on EPR fees and costs.

^b Obligated companies include producers, manufacturers, importers, distributors, retailers, and sellers (as defined under the EPR Act of 2022).

^c Product re-design can include but is not limited to better recyclability or use of natural or biodegradable materials.

^d Recommend transition to mandatory labelling requirements.

^e Parallel effort underway through the declaration of NEAPs.

^f Under current proposed measures, targets only relate to recovery/diversion, and not recycling targets.

^g Unnecessary packaging to be determined on a case-to-case basis depending on product type and other needs, after further research and study.

B. Additional Recommendations

As noted above, several cross-cutting actions and measures for the different types of plastic packaging must also be considered for the success of the proposed EPR schemes. These additional recommendations must be considered for each EPR option for each type of packaging.

- **Involve Informal Waste Sector and Ensure Integration Into Existing Waste Management Systems** – EPR for the Philippines will not be implemented in a vacuum and it will not reinvent the waste management wheel. Therefore, it should also carefully consider the impact on and integration of the informal waste sector into the EPR system, given the crucial role these stakeholders play in on-the-ground and community-based waste management across the Philippines.

Involvement of the informal waste sector can be challenging, given the informality of their arrangements and the lack of baseline data on their situation. Nevertheless, CSOs at the local level have successfully implemented programs with informal waste workers and aggregators, and will have valuable lessons to draw from, to determine the sector's priorities, resources and necessary support. Incentives to formalize the sector, as appropriate, can also be explored, under the Green Jobs Act and Sustainable Finance Road Map.

- **Mandate Eco-labeling** – For all plastic packaging types, eco-labeling requirements are a relatively low-hanging fruit, for which there is already ample legal basis and preliminary work, and as such, can be implemented across the board. The current voluntary program seems limited in its reach (i.e. only 20 products are reported to have been awarded certification), but this can be expanded further, especially if it is made mandatory for all, or a certain class, of plastic producers and manufacturers. Proper labelling and product information can help in the implementation of the EPR system – consumers will know how to properly sort and segregate items, how the product can be recycled, and how waste management operators can design efficient and effective systems to deal with the specific wastes.
- **Avoid and Prevent Greenwash** – While leading producers of FMCGs have been eager to play up the voluntary measures that they undertake as part of the corporate social responsibility programs, transparency and monitoring are essential if these activities are to count toward their compliance with a mandatory system. Avoiding greenwash is important, if the EPR program is to be considered credible. This is vital, if the public is to be encouraged to also participate in the schemes under it.

Already, civil society has been critical of public demonstrations of sustainability that mask “false solutions,” and influencing waste management regulations. This was recently demonstrated by a Reuters special report that revealed how Unilever plc lobbied against the passage of multi-layer plastic sachet bans in countries such as the Philippines, even as it publicly spoke against the use of, and promised phase outs of this packaging.⁷³

- **Mandate Progressive Targets** – Among the concerns that plastics producers raised regarding the then-draft EPR Bill were the recovery or offset targets. Twenty percent for the first two years and ten percent thereafter, leading to eighty percent by 2028 was considered infeasible, considering that even developed countries were aiming for much lower numbers. The penalties for failing to meet these targets were also flagged as excessive.

It is essential that waste collection and reduction targets be ambitious, but little compliance can be expected if they are not realistic. This is why progressively increasing targets are recommended, rather than objectives that are high and unattainable at the outset. Although these can be calibrated to meet companies’ respective resources, capacities and contributions, an EPR system can ensure consistency by requiring that there be no “backsliding” in the setting of targets annually.

It is also important to set different and independent targets for both collection/diversion and recycling. Under the EPR Act, only collection/diversion targets have been set, indicating that so long as plastics are collected – and not necessarily recycled – then the law has been complied with.

- **Careful Study in Determining Taxes, EPRs Fees, and Incentives** – One of the most challenging issues as regards EPR implementation across the globe are the added fees associated with the system. Both private companies and consumers balk at added charges from the government, which can in turn drive up costs of certain goods. This can become a very sensitive issue for a developing country like the Philippines, where possible increase in prices can impact lower income and vulnerable communities.

Any increase in taxes and collection of EPR fees should also be complemented by a clear system for accounting, disbursement and auditing at by the DENR NEC. This not only ensures that the system is funded, but more importantly that the added burden on companies and consumers was worth the cost. EPR policies must clearly identify the fund flows and responsible persons, especially when private funds may get comingled with public funds (as may be in the case in local governments who use the public budget for implementing general waste management laws).

To achieve this, the government agency tasked with monitoring, assessment and evaluation, in this case, the DENR and NEC, must be up to the task. Sufficient resources and capacities are needed to ensure that these offices can perform these responsibilities effectively.

The EPR Act must also be aligned with on-going efforts to rationalize incentives being given by the government. These need to be targeted and carefully determined to make investments in EPR-related and other waste management facilities economically and financially viable. The government can also explore public private partnerships for the needed waste management and recycling facilities as its contribution to meeting EPR goals.

Use of Bans and Phase-outs with Caution and Aligned with Product Redesign – Although the reality

⁷³Brock, Joe and John Geddie. “Unilever’s plastic playbook” *Reuters Investigates* (22 June 2022) <https://www.reuters.com/investigates/special-report/global-plastic-unilever/>.

is that many types of plastics are causing huge amounts of pollution into the open environment, there are certain types of plastics which cannot be eliminated overnight. Any bans or phase-outs must be carefully planned and done in consultation with concerned stakeholders. These must also include clear timeframes before the identified products can be taken out of commerce and use.

In any case, there must be political will and government determination to ban certain types of plastics deemed highly polluting and unnecessary. This sends a clear signal to producers and manufacturers that changes need to be made and are inevitable. These measures also need to complement product re-design efforts – which means investments in research and development and finding viable, safe, and environmentally friendly alternatives should be given equal priority.

- **Employ Appropriate Recycling and Disposal Technology** - It should be emphasized that the priority should be to reduce plastic use and recycle as much of the plastics already out there, and not to simply divert or dispose of the same. As noted in Table 5.1 above, recycling should be prioritized for high value and highly recyclable plastics. Those that are not recyclable and are thus bound for final disposal and/or for co-processing activities need to be done under strict standards and conditions, even as these measures are preferred to disposal in landfills. This is to avoid the dangers and hazards which these may cause to human health and to the overall environment. In addition, this will ease the pressure on already overstretched waste disposal facilities, with a majority of needed sanitary landfills still in the pipeline for construction and development.
- **Ensure effective data management, auditing and monitoring** – Given the numerous mandates, targets, and stakeholders involved in an EPR ecosystem, proper and effective management of data and information is critical. Government regulators – in the Philippines' case, the National Ecology Center (NEC) under the DENR – are mandated under the EPR Act of 2022 to establish and manage information databases on solid waste management techniques and approaches, processors and recyclers, the prices of recyclable materials, and submitted EPR reports. The NEC shall also be tasked to maintain an EPR Registry of all submitted programs. As of this writing, the specifics of these mandates have not been spelled-out. The database will enable government regulators to effectively monitor compliance of obliged entities, WMOs, and other stakeholders.

It is also important to emphasize the need to ensure that these databases are comprehensive, user-friendly, and accessible by EPR system stakeholders and the general public. Some of the essential inclusions of this database, which can also serve as the EPR Register, include: i) information on obliged companies/entities; ii) producer-related data (e.g., volume of plastic product or packaging put into the market); iii) information on WMOs; iv) simple reporting procedures; and, v) information on certified auditors.

- **Increased Focus on Upstream Solutions** – Alternatives are already in development for select types of plastic packaging, and several have been in use for a number of years. Efforts to scale up the research on, and roll out of these products will require investment, but are an important long-term solution to the persistent challenge of plastic waste. Development of these alternatives could also move forward the work on identification and phase out of NEAPs consistent with the process provided for under RA 9003.

C. Advantages and Disadvantages of Options

Table 5.4 below reflects some advantages and disadvantages for the recommended EPR options. Several are discussed in greater detail in the subsequent narrative.

Advantages	Disadvantages
<i>Plastic bags, including Polymer bags and SUP bags</i>	
<p>Infrastructure and facilities available in some areas for diversion and recycling initiatives</p> <p>Local government ordinances already regulate use and provide incentives</p> <p>Alternatives for some SUPs (i.e., shopping bags) already widely available and in use</p>	<p>No cost-efficient alternatives for SUPs still widely in use in wet markets and the informal economy</p>
<i>Food packaging, including PET bottles and single use items such as polystyrene containers, plastic utensils, and other rigid plastic packaging</i>	
<p>High value waste already being collected and recycled by the informal waste sector</p> <p>Includes NEAPs, which are scheduled for phase out</p> <p>Alternatives available for some single use products, and use of reusables incentivized and encouraged by local governments and private establishments</p>	<p>Widely used by manufacturers, commercial establishments, and the general public.</p> <p>Alternatives need to be produced and manufactured to scale to meet demand.</p> <p>Change in consumption habits widely needed.</p>
<i>Flexible plastic packaging, including sachets, and single-layer and multi-layer packaging</i>	
<p>Infrastructure and facilities available in some areas for diversion and recycling initiatives</p>	<p>Bans are unlikely, given cost considerations</p> <p>Alternatives not yet widely available</p>

Table 5.4 – Advantages and Disadvantages of Options

1. On Plastic Bags (Polymer and SUPs)

Significant industry pushback can be expected if additional taxes and fees are imposed, and government agencies have themselves varied in their response. This has been demonstrated for plastic bags specifically - in 2021, the House of Representatives passed on second reading House Bill 9171, or the proposed Plastic Bag Tax Act, which would have imposed a P20 per kilogram excise tax on SUP bags which are removed from the place of production or released by the Bureau of Customs. However, the Philippine Plastic Industry Association (PPIA) balked at the measure, citing the jobs provided by the industry, and arguing that no viable alternatives to plastic bags are currently available. The DTI likewise requested more time for the transition, to “give local manufacturers time to adjust their production process or equipment, and to reskill their workforce.”

Product redesign could significantly reduce waste from discarded SUP bags, but an important area to address in this regard is the issue of biodegradable and compostable plastics. These are not covered by most local SUP bans, which exempt from their coverage biodegradable plastic bags, which have “procured an Environmental Technology Verification from the Department of Science and Technology.”

However, it is likely that these products still contribute to waste generation, especially as they are not collected, segregated and processed properly. The reactivation of the DTI’s multi-stakeholder Technical Committee on Plastics and Plastic Products could help spur this, as it works on the Philippine National Standards for compostable plastic products, although the transition in administrations could cause some delays.

2. *On Flexible Plastic Packaging*

Bans will likely be difficult to implement for multi-layer plastic sachets, as these are often more affordable and accessible for lower-income communities. Cost considerations are especially relevant for these products, especially as RA 9003 provides that NEAPs may only be prohibited if there are alternatives available to consumers at no more than ten percent greater cost than the disposable product.

At present, alternative packaging is available on a much smaller scale and at a higher price. For example, compostable “biobags” made with cassava are 30 to 40 percent more expensive than their plastic counterparts, and are not yet designed for most FMCGs.

The plastic industry, including several large companies producing FMCGs, have been quick to highlight their recycling efforts for these types of waste. The Philippine Alliance for Recycling and Materials Sustainability (PARMS) has begun building a Php 25 million large-scale plastics recycling facility, where its member companies can divert their plastic waste to be recycled into eco-bricks.

However, the investments that are directed toward upstream measures, such as product redesign and development of alternatives have been slower, are less clear, and appear less ambitious.

The socio-economic conditions that lead to high waste generation, coupled with the country’s low rates of collection and recycling, support the recommendation that downstream measures must be implemented in addition to, and not as a substitute for, ambitious upstream efforts. In a waste management system that struggles with reuse and recycling as a whole, it will not be enough to make products easier to recycle. Steps must be taken to incorporate plastic alternatives when packaging options are manufactured, and companies are better placed to bear the costs that this entails.

Chapter Overview and Key Points:

- Several enabling conditions need to be met and complied with to ensure the EPR system’s success. These are essential to make sure that efforts do not go to waste and the system operates effectively and efficiently.
- These recommendations cover a broad range of options, including those covered by the EPR Act, and other relevant mechanisms, regulations and guidelines pertinent to solid waste management, environmental issues, trade and commerce, and research and development. This is consistent with the view that EPR must be a system, and not just a singular law.
- Several cross-cutting actions and measures for the different types of plastic packaging must also be considered for the success of the proposed EPR schemes.
- Each option has advantages and disadvantages which need to be carefully weighed and considered especially for items such as plastic bags and flexible packaging.



VI. CONCLUSION: MOVING FORWARD AND BETTER WITH EPR IN THE PHILIPPINES

The Philippines has taken a positive step forward in the fight against plastic pollution with the enactment of the EPR Act of 2022. As one of the few countries in the region with such a law, it shows the country's commitment to tackle the growing problem of marine pollution – in particular that of plastic waste and litter. Waste management has been a perennial problem for the archipelagic nation, and the new EPR system offers another tool in the arsenal to deal with the waste crisis.

However, waste management is a continuing problem in the Philippines because of the poor implementation and enforcement of existing laws. As noted in this study, ensuring an efficient and effective downstream waste management system is one of the critical initial steps which the country needs to focus on to ensure the success of EPR. Experiences from other countries have shown that basic waste management laws and rules need to be complied with before EPR's goals can be achieved.

The Philippines has the basic foundation of laws and regulations which provide the framework for a waste management system. It also has the institutional mechanisms for its effective enforcement. What needs to be done now is to ensure all segments of society comply with existing waste management laws – these include basic mandates such as segregation at source, sorting, and proper handling and transport. Also needed are setting up the needed infrastructure, from the basic MRFs up to the recycling and processing facilities. Lastly, clear lines of coordination need to be established with the local government units and local communities. They are at the front lines of waste management in the country, and the EPR system needs to ensure their proper integration into specific schemes and programs.

The recommendations of the report – which comprises meeting the enabling conditions before pursuing the different EPR options presented, whilst considering several cross-cutting themes – can help in crafting the details for the implementation of the EPR Act. As government regulators begin the important task of putting together guidelines, rules, and standards for the system, it is important to take stock of the recommendations of this report. In particular, the different options for specific type of packaging point to the reality that a one-size-fits-all application of the EPR rules would not be effective. Although there will be common and general guidelines, each plastic type must be carefully considered to take into account several factors such as costs, availability of alternatives, retrievability and recyclability, among many others – factors which were considered in the careful crafting of this report's recommendations.

Many issues have been hurled against the EPR Act, and all these need to be critically considered by government regulators, policy-makers and the different obliged companies. Several gaps in the current law and framework still remain (some identified in this report), which means the work to improve EPR for the country has already begun. Despite this, now is the time to move forward with EPR on hand with the hope of achieving better waste management in the Philippines.



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