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# PLASTIC POLICIES IN THE PHILIPPINES

## Country Profile

**Acknowledgements**

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# Figures and Tables



# Abbreviations

| | |
|---|---|
| **AEPW** | Alliance to End Plastic Waste |
| **COBSEA** | Coordinating Body on the Seas of East Asia |
| **DENR** | Department of Environment and Natural Resources |
| **EPR** | Extended producer responsibility |
| **GDP** | Gross domestic product |
| **LGU** | Local government unit |
| **MRF** | Materials recovery facility |
| **NGO** | Non-governmental organisation |
| **NPOA-ML** | National Plan of Action for the Prevention, Reduction, and Management of Marine Litter |
| **NSWMC** | National Solid Waste Management Commission |
| **PAP4SCP** | Philippine Action Plan for Sustainable Consumption and Production |
| **PCX** | Plastic Credit Exchange |
| **PET** | Polyethylene terephthalate |
| **PCEPSDI** | Philippine Center for Environmental Protection and Sustainable Development, Inc. |
| **RA** | Republic Act |
| **SUP** | Single-use plastics |
| **WWF** | World Wide Fund for Nature |

# 1. Context

In the Philippines, 1,511 million tonnes of plastic waste, or 13.1 kg per capita, are generated annually (EA 2024). The annual per capita rate of plastic waste thus stands well below the global average of 31.9 kg and the average in SWITCH-Asia countries of 20.1 kg (Figure 1). Some 56% of this waste or slightly more than 842,000 tonnes are mismanaged.

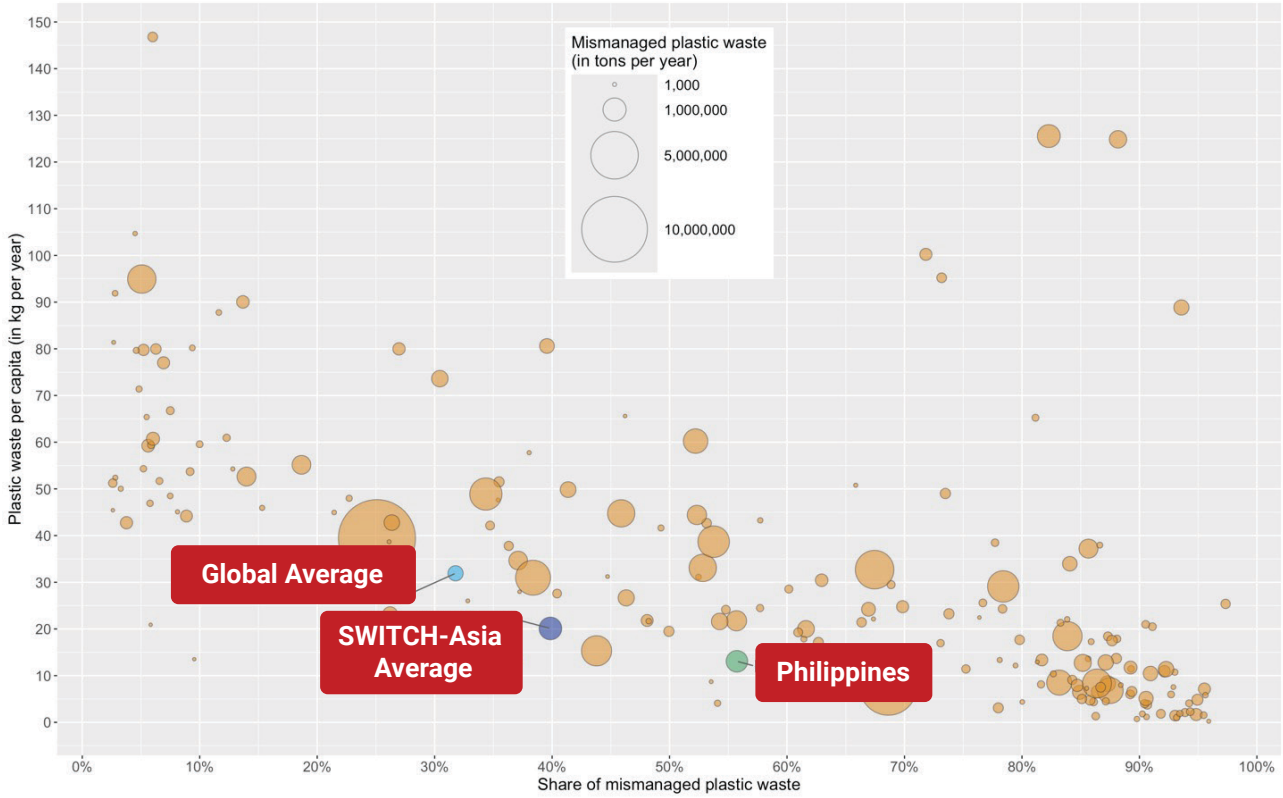


**Figure 1. Plastic waste in the Philippines in 2023**

*Source: Earth Action 2024 data, authors' calculations*

In 2023, the per capita rate of mismanaged plastic waste stood at 7.3 kg per year and was almost half of the global average of 12.5 kg per capita per year and the average in SWITCH-Asia countries of 12.2 kg.

| **Rank of the Philippines in global comparison** (out of 192, 192 being the highest in pollution/mismanagement) | |
|---|---|
| Plastic waste in metric tonnes | **165** |
| Plastic waste per capita (kg/year) | **61** |
| Mismanaged plastic waste in metric tonnes | **175** |
| Mismanaged plastic waste per capita (kg/year) | **87** |
| Share of mismanaged plastic waste | **88** |

The Philippines' plastic industry plays an important role in the manufacturing sector. While exact numbers on the actual contribution of this industry to the Philippine economy are unavailable, the size of the plastic market is estimated at USD 6.8 billion and is expected to grow by 4.9% (compound annual growth rate, CAGR, 6Wresearch 2022). Above all, the market is driven by demand from the packaging, consumer goods, construction and automotive sectors (Mordor Intelligence 2024).

Plastic-related trade data corroborate the relevance of the plastic industry for the Philippine economy. In 2022, the overall trade volume of plastic-related goods and products amounted to almost USD 9.5 billion, according to UNCTAD data (Figure 2). The data also suggest that the Philippine plastic industry produces mainly for the domestic market. The country shows an overall negative trade balance and is a net importer of all plastic-related goods and products except plastic waste. The export of final manufactured plastic goods is noteworthy, with more than USD 1.3 billion, whereas USD 2.3 billion of plastic products are imported. Specifically, the imports of plastics in primary forms, intermediate forms of plastics and final manufactured plastic goods account for the country's negative trade balance (adding up to USD 4.3 billion, or 86% of the plastic-related negative trade balance).

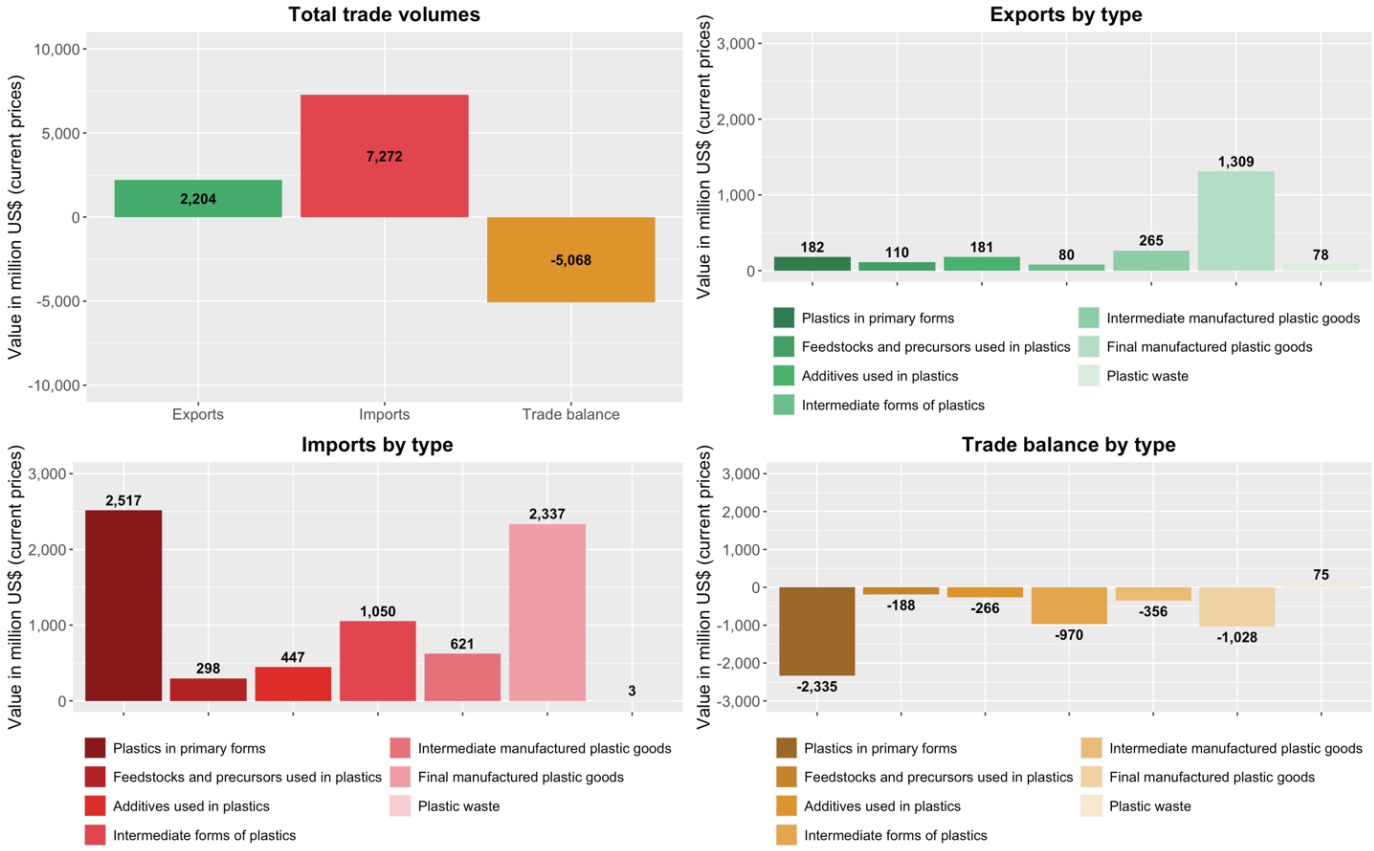


**Figure 2. Plastic-related trade in the Philippines in 2022**

*Source: UNCTAD data 2024*

Another plastic-related industry is important in the Philippines, namely the chemicals sector, which contributed almost 14% to the added value of the manufacturing sector and 2.4% to the gross domestic product (GDP), according to World Bank data. The Philippine oil and gas industry contributes 0.2% to the GDP.

# 2. Policy landscape

The Philippines has three binding laws and two action plans aimed at promoting the prevention of plastic pollution. Considering that there is no production of virgin plastics in the Philippines, these policies address all relevant stages of the life-cycle of plastic products, from manufacturing to end-of-life treatment. Table 1 gives an overview of the relevant national roadmaps and policies. There are also many laws addressing plastic waste at the municipal and city level (see section 2.2 below). The policies include command-and-control measures, provisions for market-based measures, and information requirements.

Three legally binding policies have nationwide scope (see section 2.1 below):

1. Ecological Solid Waste Management Act of 2000 (RA 9003)
2. House Bill 9147: Single Use Plastic Products Regulation Act – 2021
3. Extended Producers Responsibility Act (RA 11898) – 2022

The trade of plastic (or plastic waste) is not covered by any of these regulations. At least for plastic waste, this reflects the negligible trade volumes. Regulations on plastic trade, however, could potentially serve as a regulation on the overall consumption of virgin plastics in the country, since nearly all the primary forms of plastics are imported and none produced domestically.

## 2.1 Legally binding policies

### 2.1.1 Ecological Solid Waste Management Act of 2000 (RA 9003)

This Act provides a comprehensive framework for managing solid waste in the Philippines and targets the protection of public health and the environment, focusing on resource conservation, reuse and recycling. It addresses the transport, processing, and disposal of waste across the country.

In terms of **command-and-control mechanisms**, this Act outlines the phasing out of open dumpsites, which are to be replaced with sanitary landfills to ensure safer waste disposal. The Act also initially aimed to prohibit 'non-environmental' packaging within a year, although this particular provision was not implemented. Additionally, the Act requires the establishment of materials recovery facilities (MRFs) in every barangay or cluster of barangays, which are the smallest administrative divisions in the Philippines. MRFs are designed to sort, segregate, and store recyclable materials at the local level. In addition, the law mandates monitoring and enforcement by the National Solid Waste Management Commission (NSWMC) and local government units (LGUs).

Regarding **marked-based mechanisms**, the Act also focuses on the development of a National Recycling Programme, with LGUs responsible for integrating effective plastic recycling strategies into solid waste management plans, including the institutionalisation of extended producer responsibility (EPR) to ensure that producers will be held responsible for managing their products throughout their entire life cycle. In addition, a deposit-refund system (DRS) was introduced in the form of mobile drop-off and buyback units to further encourage recycling efforts by increasing collection rates.

**Information mechanisms** include the creation of an inventory of existing markets for recycled products within six months along with the introduction of eco-labelling to guide consumers towards making environmentally friendly choices. Finally, the Act also emphasises the critical role of education and public awareness campaigns in waste management and environmental protection. These initiatives aim to engage not only the government but also the private sector and the general public in implementing waste management strategies across all levels – national, provincial, city, municipal and barangay (Republic of the Philippines 2001).

**Table 1. Overview of plastic-related policies in the Philippines.**

*Source: Authors' work.*

| | Production (primary polymers) | Manufacturing (plastic products) | Consumption | Waste management/ End-of-life | Trade |
|---|---|---|---|---|---|
| **COMMAND AND CONTROL** | | | | | |
| Mandatory performance/outcome standards (incl. targets) | | | | | |
| Mandatory process standards (incl. targets) | | House Bill 9147: Single Use Plastic Products Regulation Act – 2021 | | • Ecological Solid Waste Management Act of 2000 (RA 9003)<br>• House Bill 9147: Single Use Plastic Products Regulation Act – 2021 | |
| Technological standards (incl. targets) | | | | | |
| Prohibitions/bans (incl. phaseout) | | | House Bill 9147: Single Use Plastic Products Regulation Act – 2021 | Ecological Solid Waste Management Act of 2000 (RA 9003) | |
| **MARKET-BASED** | | | | | |
| Taxes/levies | | | | | |
| Subsidies/grants/tax reductions | | | | House Bill 9147: Single Use Plastic Products Regulation Act – 2021 | |
| Public procurement | | | | | |
| EPR/deposit refund schemes | | House Bill 9147: Single Use Plastic Products Regulation Act – 2021 | | • House Bill 9147: Single Use Plastic Products Regulation Act – 2021<br>• Extended Producers Responsibility Act (RA 11898) (2022) | |
| Liability schemes | | | | | |

| | Production (primary polymers) | Manufacturing (plastic products) | Consumption | Waste management/ End-of-life | Trade |
|---|---|---|---|---|---|
| **INFORMATION** | | | | | |
| **Taxonomies** | | | | | |
| **Data collection, reporting and disclosure** | | | | | |
| **Labels** | | | | Ecological Solid Waste Management Act of 2000 (RA 9003) | |
| **Awareness raising/ capacity development** | | | Ecological Solid Waste Management Act of 2000 (RA 9003) | • House Bill 9147: Single Use Plastic Products Regulation Act – 2021<br>• Extended Producers Responsibility Act (RA 11898) (2022) | |
| **GOVERNANCE/COORDINATION** | | | | | |
| **Roadmaps, plans and strategies** | | • The Philippine Action Plan for Sustainable Consumption and Production (PAP4SCP) – 2020<br>• National Plan of Action for the Prevention, Reduction, and Management of Marine Litter (NPOA-ML) – August 2021 | • The Philippine Action Plan for Sustainable Consumption and Production (PAP4SCP) – 2020<br>• National Plan of Action for the Prevention, Reduction, and Management of Marine Litter (NPOA-ML) – August 2021 | National Plan of Action for the Prevention, Reduction, and Management of Marine Litter (NPOA-ML) – August 2021 | |
| **Inter-ministerial coordination** | • Under 'The Philippine Action Plan for Sustainable Consumption and Production (PAP4SCP) – 2020', responsibilities are distributed among various sectors, including contributions from local government units (LGUs), the private sector, academia, and civil society organisations.<br>• Under the 'House Bill 9147: Single Use Plastic Products Regulation Act', responsibilities are distributed among various ministries, including contributions from commercial establishments, government agencies, and LGUs. | | | | |
| **Public-Private partnerships** | • Unilever Philippines, a member of the Philippine Alliance of Recycling and Materials (PARMS), partners with the Department of Environment and Natural Resources (DENR) regarding the implementation of an EPR programme.<br>• The Technical Committee, a group consisting of representatives from government, the private sector, academia, and civil society, finalised the ecolabel 'Green Choice Philippines' initiated by the Philippine Center for Environmental Protection and Sustainable Development, Inc. (PCEPSDI).<br>• The Coca-Cola system collaborates with partners from the government, private sector, and civil society in the Philippines to advance nationwide packaging collection initiatives, support zero-waste communities, and enhance the skills of workers in the solid-waste management field. | | | | |

| | Production (primary polymers) | Manufacturing (plastic products) | Consumption | Waste management/ End-of-life | Trade |
|---|---|---|---|---|---|
| SPECIAL FOCUS SECTOR: AUTOMOTIVE | | | | | |
| | The automotive sector is a major consumer of plastics in the Philippines:<br>According to the International Organization of Motor Vehicle Manufacturers (OICA), the total production of motor vehicles in the Philippines reached 83,852 units in 2021, showing a growth of 25% compared to 2020.<br>The advantageous geographical location of the Philippines and its easy access to rapidly growing Asia-Pacific end users have contributed to increased consumption of injection-moulded plastic parts in the automotive industry (Mordor Intelligence 2024).<br>There are no policies addressing the use of plastics in vehicles. This creates an opportunity to potentially reduce the use of virgin plastic material in the sector, which would, however, likely require governmental actions.<br>A recent proposal for regulation in the EU regarding the end-of-life of vehicles may also affect or inspire the Philippine automotive industry to take actions if the proposal is adopted. The regulation intends to prescribe that 25% of the plastic used in new vehicles must be recycled materials and that 30% of plastic materials from vehicles that have reached their end-of-life must be recycled (EU Commission 2024). | | | | |

The Ecological Solid Waste Management Act of 2000, while widely praised, has faced significant challenges in implementation. A review by the University of Portsmouth highlights that the policy has been only partially successful. Waste separation and recycling facilities were established in just 21% of the regions. Open dumping remains prevalent, and public compliance with recycling is low. Major obstacles include a lack of funding, enforcement, and technical expertise, as local authorities have received little to no financial support from the central government for necessary infrastructure and training. Fines for non-compliance are minimal, and none of the policy's time-bound goals have been met (Portsmouth University 2024). Moreover, the Act does not explicitly address plastic pollution, leading to legal gaps in combatting it. High-residual-value plastics like polyethylene terephthalate (PET) bottles are often collected and recycled by informal waste workers, but most low-residual-value plastics are not regularly recovered in the informal market, resulting in a low overall recovery rate (Schachter & Karasik 2022).

### 2.1.2 House Bill 9147: Single Use Plastic Products Regulation Act – 2021

This House Bill implements comprehensive regulations on the production, import, sale, distribution, use, and disposal of single-use plastics (SUPs) through several key measures. The bill outlines a two-pronged approach: regarding **command-and-control mechanisms**, a clear timeline is set for phasing out single-use plastics (SUPs), which are identified as easy to replace, hard to recycle and/or rarely retrieved from the environment, with products being gradually removed from the market within one to four years, alongside other interventions. In terms of **market-based mechanisms**, the bill requires producers and importers to organise and implement an extended producer responsibility (EPR) scheme, focusing on strengthening recovery programmes to prevent waste leakage into the environment. The Bill also delineates the responsibilities of commercial establishments, government agencies, and LGUs, and offers tax incentives to businesses engaged in waste recovery efforts (WWF 2023, COBSEA 2021).

### 2.1.3 Extended Producers Responsibility Act (RA 11898) – 2022

This Act applies the 'polluter pays' principle, holding companies responsible for the environmental impact of their products throughout their life cycle. The Act serves as a key market-based mechanism by mandating large corporations to recover or divert a certain percentage of their plastic packaging footprint. This requirement begins with a goal to recover 20% by the end of 2023, increasing annually to at least 80% by 2028. To ensure accountability, the law obliges large enterprises to conduct EPR programmes and link these efforts to their sustainability reports, incentivising companies to improve their environmental impact through economic benefits (Republic of the Philippines 2022).

The EPR Act underscores the necessity of public involvement integration in shaping ecological waste-management programmes on both the national and local levels. Enforcement responsibility falls under the National Solid Waste Management Commission and the National Ecology Center, both of which monitor adherence to the law and ensure that waste goals are achieved.

The EPR Act also emphasises educational action as part of its **informational mechanisms**, and it seeks to integrate topics on **ecological solid-waste management and resource conservation and recovery** into both formal and non-formal educational curricula in order to raise public awareness. This approach is designed to foster a culture of sustainability among both consumers and producers, thereby supporting the broader objectives of the law.

The implementation of the EPR scheme in the Philippines does however face significant challenges. Key issues include non-compliance by plastic producers, driven by a perceived lack of economic or operational benefits, weak enforcement, high compliance costs, and inadequate recycling infrastructure. The complexity of the regulations further complicates adherence, with companies often prioritising short-term survival over long-term environmental responsibilities (PCIJ 2023). Although the law has advanced the circular economy and increased producer awareness, inconsistent enforcement and compliance issues persist. The Department of Environment and Natural Resources (DENR) needs to strengthen enforcement and address logistical and operational challenges in waste collection and recycling infrastructure to fully achieve the goals set by the law (Manila Bulletin 2023).

## 2.2 Plans and Roadmaps

There are two national action plans that consider plastics. Action plans are not legally binding, but serve as overall political guidance for the country.

### 2.2.1 The Philippine Action Plan for Sustainable Consumption and Production (PAP4SCP) – 2020

This Action Plan aims to guide consumers and producers toward sustainable practices, integrating Sustainable Development Goal 12 into national policy. The plan focuses on decoupling economic growth from environmental degradation through green technologies, institutional reforms, and behavioural changes (Republic of the Philippines 2022). Overall, PAP4SCP integrates market-based incentives, regulatory frameworks, and informational campaigns to encourage sustainable consumption and production practices across the Philippines.

Regarding **command-and-control mechanisms**, the plan suggests legislative reforms to support waste-to-energy projects, although this approach is widely recognised as a less preferred recycling method. Furthermore, the plan aims to strengthen the implementation of the Ecological Solid Waste Management Act of 2000 (RA 9003, see 2.2.1 above) by enhancing the capacity of local LGUs to manage solid waste more effectively. Actions include stricter enforcement of solid waste management regulations as well as the introduction of 'choice-editing' strategies, such as regulating single-use plastics and unsustainable packaging.

In terms of **market-based mechanisms**, the plan refers to the abovementioned Extended Producer Responsibility (EPR) Act (RA 11898) (Republic of the Philippines 2022). Additionally, the plan encourages green procurement and prompts government agencies and businesses to purchase eco-friendly products, thereby creating a market for sustainable goods and services. PAP4SCP also supports scaling up business models for waste minimisation by encouraging companies to adopt processes that utilise secondary raw materials, such as construction and demolition waste, and recycled paper, plastics, and glass.

On the **information side**, PAP4SCP emphasises the importance of R&D to find alternatives to and support for the phasing-out of single-use plastics. Informational mechanisms include promoting education and awareness campaigns as well, to guide consumers and businesses toward more sustainable behaviours. This approach is meant to facilitate voluntary changes in consumption and production practices.

### 2.2.2 National Plan of Action for the Prevention, Reduction, and Management of Marine Litter (NPOA-ML) – 2021

The development of **NPOA-ML** in 2021 reflects awareness that previous efforts have not been sufficient. This plan adopts a multi-stakeholder approach in its formulation, starting with a comprehensive understanding of each stakeholder's role in the issues, building a systemic understanding of the problem and supporting it with a broad range of proposed solutions. In particular, NPOA-ML emphasises plastic as a significant component of marine litter, alongside other non-degradable materials that pose serious threats to marine wildlife. Moreover this Action Plan addresses the issue of microplastics, acknowledging their impact and the need for targeted measures to manage their presence in marine environments (Government of the Philippines 2021).

The specific actions outlined in Table 2 of the comprehensive strategy to address marine litter aim to promote effective management practices and work towards achieving the goal and vision, by 2040, of 'A Philippines free of marine litter through shared responsibility, accountability and participatory governance' (Government of the Philippines 2021).

**Table 2. Measures included in the NPOA-ML – 2021**

*Source: Authors' work*

| Type of measure | Measure in the strategy |
|---|---|
| Command and Control Mechanisms | • **Collection and Disposal Safeguards:** Prevent waste leakage from collected or disposed waste by monitoring waste collectors, closing unsuitable dumpsites, and establishing new, eco-friendly waste management infrastructure.<br>• **Recovery and Recycling Enhancement:** Improve waste recovery and recycling systems in line with RA 9003 (Section 11).<br>• **Policy and Enforcement:** Strengthen policies and enforcement mechanisms for managing marine litter.<br>• **Shipping and Fisheries Waste Control:** Improve marine litter management by enhancing policies, inter-agency cooperation, and port facilities. Focus on better handling of abandoned fishing gear, seaweed-growing media, and aquaculture floaters. |
| Information Mechanisms | • **Strengthening LGU Capacities and Local Implementation:**<br>  • Incentivise exemplary programmes and performance through recognition programmes or awards (e.g. Plastic-Free City)<br>  • Include integrating actions and outcomes into performance parameters and indicators for local government units (LGUs), encouraging implementation at the local level.<br>• **Social Marketing and Communication:** Raise awareness and promote responsible behaviour through targeted campaigns.<br>• **National Marine Litter Baselining:** Establish a scientific baseline through a National Marine Litter Baselining initiative and coordinate with international organisations for monitoring and management tools.<br>• **Cleanup of Riverine and Marine Environments:** Expand nationwide clean-up initiatives, especially in marine hotspots. Promote consistent and sustainable clean-ups, raise awareness, and explore technology for debris recovery.<br>• **Sustainable Financing and Resource Allocation:** Secure funding and effectively allocate resources for implementation.<br>• **Circular Economy and Sustainable Consumption and Production (SCP) Mainstreaming:** Promote Circular Economy principles to reduce waste, improve waste recovery, and enhance management of post-consumer goods and packaging in line with RA 9003. |

## 2.3 Policies at municipal and city levels

At the municipal and city levels, many governments have implemented strategies and policies to reduce or discourage the use and disposal of single-use plastics, though enforcement levels differ. These efforts typically fall under command-and-control mechanisms, regulating sale of single-use plastic items, rather than offering a comprehensive approach to managing all types of plastics throughout their life cycle (Schachter & Karasik 2022). By 2020, there were 168 recorded LGU-policies regulating single-use plastic items like plastic bags, polystyrene, and non-biodegradable packaging. Makati City set a precedent in 2003 by enacting the first regulation focused on reducing single-use plastics (Government of the Philippines 2021).

# 3. Private sector innovations

The private sector in the Philippines is actively engaged in various innovative efforts to reduce plastic pollution, in particular with regard to downstream measures (e.g. waste sorting, waste management or recycling) and the reduction of plastic waste.

The only notable exception that addresses upstream pollution is the ecolabel developed by the **Philippine Center for Environmental Protection and Sustainable Development, Inc. (PCEPSDI)**. Known as 'Green Choice Philippines,' this ecolabel, which certifies products that adhere to sustainable production standards, represents a significant effort to promote sustainable packaging practices across various industries. The criteria were created by PCEPSDI, and reviewed and finalised by the Technical Committee, a group consisting of representatives from government, the private sector, academia, and civil society. PCEPSDI introduced this certification to encourage businesses to adopt more environmentally friendly packaging solutions. The criteria ensure that the certified products are either biodegradable, compostable, reusable, refillable or recyclable, and that there is an efficient system in place for their recovery and disposal. The ecolabel considers the entire product life cycle, holding manufacturers accountable for resource efficiency and proper waste management. By doing so, it provides a market-driven incentive for companies to reduce plastic use and improve their waste management strategies.

To support the adoption of this ecolabel, the project team developed a private-sector roadmap for sustainable packaging, which aims at educating both the retail sector and consumers about the ecolabel and its benefits. Additionally, a variety of supporting communication activities, including an information campaign, seminars, and social media posts, were carried out. This initiative not only helps consumers make more informed choices but also drives industry-wide shifts towards sustainable packaging solutions, thereby contributing to the reduction of plastic waste and promoting environmental stewardship within the Philippine market (Rethinking Plastics, GIZ 2023, PCEPSDI 2024).

> *A circular economy requires more than reuse and recycling, which for plastics, remain costly, degrade material quality, and cover only 9% of global plastic waste. A more effective circular economy approach must prioritize reduction, eliminate harmful plastics, and design products for durability, reuse, and recyclability. Strengthening waste management, making recycled materials competitive, and preventing plastic leakage are also key. Beyond recycling, a well-coordinated strategy integrating regulatory, market-based, and design-driven measures is essential for a sustainable and resilient plastics economy.*

The **Green Table**, a health chain and online subscription service based in the Philippines, piloted the Bambuhay brand's bamboo containers. These innovative, sustainable containers were tested over a 30-day period to replace plastic packaging. The pilot aimed to showcase the practicality and benefits of bamboo as a viable, eco-friendly alternative. The Green Table's efforts contributed to preventing the use of approximately 1,000 kg of plastics during the pilot phase alone. If the bamboo containers are adopted widely, it is expected that they will help prevent the use of a total of 6.24 metric tonnes of plastics annually. The insights gained from this and other pilots were compiled into a technical playbook, 'Accelerating Circular Solutions to Single-use Plastics,' which provides a comprehensive guide for scaling up circular solutions in the food-service sector (Prevent Waste Alliance 2024, GIZ 2023).

**Nanotronics**, based in the Philippines, is a company committed to reducing plastic waste by contributing to the development and production of durable, biodegradable alternatives to conventional plastic products. The company produces pristine, advanced cellulose nanocrystals which can be used as an additive to existing polymers, increasing their strength. When added to a biodegradable polymer, the whole product remains biodegradable and also becomes more durable. However, no specifications have been provided concerning the conditions under which biodegradability would apply (Nanotronics 2023).

Another global actor active in the Philippines is the **Alliance to End Plastic Waste (AEPW)**. The *Collect, Certify, Circulate* project, launched in 2021, specifically targeted plastic waste in Marilao, the Philippines.

This initiative aimed to enhance waste management and support the circular economy through a multi-faceted approach. The project focused on improving plastic waste collection, certification, and recycling processes. By partnering with **Plastic Credit Exchange (PCX)** and local waste management organisations, the project established a comprehensive system for managing plastic waste. It provided essential infrastructure support – container vans, scales, and balers – to community-based micro-entrepreneurs who collected and processed plastic waste in their neighbourhoods. A key component of the project was the certification process, which ensured the quality and traceability of recycled plastics. Certification not only facilitated the recycling of materials but also created income opportunities for local residents. The initiative successfully diverted substantial amounts of plastic waste from the environment and advanced efforts towards a circular economy in Marilao, significantly contributing to local and environmental sustainability (AEPW 2023).

It should, however, be noted that AEPW has faced significant criticism from civil society organisations and other actors, primarily due to accusations of greenwashing and failing to meet objectives. Greenpeace has been a vocal critic, labelling the Alliance as a marketing ploy by big oil companies to generate positive headlines while continuing to expand global plastic production. This criticism intensified after a Reuters investigation revealed the breakdown of AEPW's flagship project, Renew Oceans, which aimed to clean the Ganges River but fell drastically short of its targets, collecting only a fraction of the plastic waste it had promised (Brock et al. 2021).

There are also collaborations among corporations, NGOs, and local governments in the Philippines that are fostering innovation. For example, **Unilever Philippines** is addressing plastic pollution through a variety of initiatives in collaboration with organisations like the Department of Environment and Natural Resources (DENR) (Unilever Philippines 2023). The company's approach includes integrating more recycled plastics into its products and packaging, and supporting waste management and recycling infrastructure improvements in the Philippines (Unilever 2024). Being supported by the National Solid Waste Management Commission (NSWMC), Unilever has been aiming to enhance local waste recovery systems and promote responsible plastic use and disposal. The company also is also investing in educational campaigns to raise awareness about proper waste management (ICLEI Southeast Asia 2018).

Nevertheless, Unilever is also facing criticism, in this case for the company's contribution to plastic pollution, as has been exposed in Greenpeace's July 2024 report. The report points out that Unilever is one of the top contributors to plastic waste globally. Despite its efforts to increase the use of recycled materials and improve waste management, the company is criticised for its continued reliance on single-use plastics. Greenpeace argues that these initiatives have not substantially reduced the company's overall plastic footprint or effectively addressed the broader environmental impact (Greenpeace 2024).

**Coca-Cola Philippines** is addressing plastic pollution in line with the World Without Waste initiative, which was launched in 2018 by the Coca-Cola Company. Key actions involve ensuring that all packaging is recyclable by 2025, and that it incorporates a minimum of 50% recycled materials by 2030. The company invests in PETValue Philippines, a bottle-to-bottle recycling facility processing 2 billion PET bottles annually. Coca-Cola Philippines also established over 800 collection points nationwide and collaborates with communities and organisations to promote zero waste and recycling. Another goal of the company is to collect and recycle the equivalent of every bottle and can that it sells by 2030. The Coca-Cola Company has reduced the use of new plastic by approximately 10,000 metric tonnes by light-weighting its recyclable PET packaging, achieving up to a 25% reduction in weight for single-serve bottles, and the company aims to create closed-loop systems to ensure that all packaging is recycled and reused. In the Philippines, the Coca-Cola system collaborates with partners from the government, private sector, and civil society to advance nationwide packaging collection initiatives, support zero-waste communities, and enrich the skills of workers in the solid-waste management field (Coca-Cola Philippines 2022, Inquirer.net 2023).

These examples highlight how multinational companies with significant plastic footprints like Unilever, Coca-Cola, and Nestlé (see also Nestlé Philippines 2021) are actively pursuing innovations in plastic waste reduction and management in the Philippines. Such efforts are crucial, as these companies are among those facing significant criticism for being the world's 56 top plastic polluters, responsible for half of all world marine plastic pollution (Cowger et al. 2024).

# 4. Challenges

The Philippines, being an archipelagic nation, faces unique challenges with regards to plastic pollution. An extensive coastline and numerous islands make the country particularly vulnerable to marine plastic pollution. The country's geographical layout complicates waste management efforts, as the challenge is to implement uniform strategies across all regions. Moreover, the Philippines is prone to natural disasters such as typhoons and floods, which exacerbate the plastic pollution problem by dispersing waste and debris across both the land and the ocean (Earth.org 2024).

The country's tropical climate also plays a role in accelerating the breakdown of plastics into microplastics, which are even more difficult to manage, and which pose even greater threats to marine ecosystems. These geographical and climatic factors combined make the Philippines the third-ranking contributor to plastic pollution worldwide, with estimates ranging between 2.7 and 5.5 million metric tonnes of plastic waste generated each year (Schachter & Karasik 2022).

The industrial sector in the Philippines contributes significantly to plastic pollution. Various industries are highly dependent on single-use plastics, which has led to a staggering annual generation of plastic waste (Earth.org 2024). As in most developing countries, rapid industrialisation and urbanisation in the Philippines have increased the production and consumption of plastic products, outpacing the development of adequate and environmentally sound waste-management infrastructure. Furthermore, with only about 28% of key plastic resins being recycled, the recycling sector in the Philippines will require considerable further development (data for 2019, World Bank 2022).

As already indicated above in Section 2, Policy Landscape, the Philippines is in need of adequate enforcement capacities (see also Earth.org 2024 and World Bank 2022). One of the main challenges in policy enforcement is coordination between different levels of government and the various stakeholders. The complex nature of plastic pollution, moreover, requires a multi-sectoral approach, which can complicate effective implementation even more (Rola 2019).

The Philippines is also confronted with challenges in monitoring and regulating the informal waste sector, which plays a significant role in waste collection and recycling but often operates outside the formal regulatory framework. As in many other developing countries, integrating this sector into formal waste-management systems while ensuring environmental and social safeguards remains a challenge (Sur et al 2023).

In conclusion, the Philippines faces multifaceted challenges in addressing plastic pollution. The country's unique geographical and climate conditions make it vulnerable to marine plastic pollution, and complicate waste-management efforts as well. Industrial activities, particularly the high dependence on single-use plastics combined with low recycling rates, are contributing significantly to plastic pollution. While the country has made progress in developing policies to combat plastic pollution, enforcement capabilities remain a critical challenge. Addressing these issues will require a comprehensive approach involving government, industry, and civil society, as well as international cooperation to tackle what is a global environmental crisis.

# 5. Way forward

The prevalence of marine litter in the Philippines, despite existing policies and frameworks, reveals significant gaps and opportunities for further intervention. The scope and scale of the efforts being carried out to tackle plastic pollution have not yet fully addressed the problem, although many small-scale initiatives have been undertaken by local governments, community groups, and non-governmental organisations (NGOs) focusing on circular economy principles, waste management improvements, and marine litter prevention. These initiatives do target better waste management from households and maritime activities, but they would benefit from operating as part of a more coordinated regional and multi-sectoral effort, under a national policy, rather than independently. It is to be noted that existing national policies, such as climate policies, or carbon footprint reduction targets set by global companies, offer potential pathways for addressing marine litter as well. Improvements in design, alternative packaging, and delivery systems under these policies can contribute indirectly to marine litter reduction. While not always perfectly aligned with marine litter initiatives, these policies provide valuable systems and lessons learnt that could inform broader strategies for managing and reducing marine litter (Government of the Philippines, DENR 2021.

To tackle plastic pollution more sustainably, the Philippines could consider several strategic adjustments and enhancements to current policies and practices.

First of all, the country would benefit from **strengthening and enforcing existing legislation**. The Philippines has several key pieces of legislation aimed at managing plastic waste, such as the Ecological Solid Waste Management Act of 2000 (RA 9003), the Extended Producers Responsibility Act (RA 11898) of 2022, and the Single Use Plastic Products Regulation Act (House Bill 9147) of 2021. Effective implementation thereof critically requires enhancing coordination between national and local governments, increasing funding for waste-management infrastructure, and improving monitoring and enforcement mechanisms. Such implementation could involve stricter penalties for non-compliance, regular audits of waste-management practices, and more robust support for local government units (LGUs) in implementing these laws.

Secondly, further steps in **promoting a circular economy** could help reduce plastic waste by encouraging the design and production of products that are reusable, recyclable, or biodegradable. Initiatives like the National Plan of Action for the Prevention, Reduction, and Management of Marine Litter (NPOA-ML) are already promoting circular economy practices. Expanding these efforts to include more comprehensive support for businesses adopting sustainable packaging solutions, such as the 'Green Choice Philippines' ecolabel, can drive industry-wide changes. Additionally, fostering public-private partnerships to develop and implement circular business models will be essential.

To find a new balance between corporate interests and societal expectations regarding limiting pollution and environmental protection, The **Extended Producer Responsibility (EPR) scheme could be expanded**. To enhance the effectiveness of the EPR programme, it is crucial to address compliance issues and provide incentives for businesses to participate, or even to make participation mandatory. Incentives could include tax breaks for companies that meet or exceed recovery or recycling targets, grants for developing innovative recycling technologies, and public recognition for exemplary corporate practices. Ensuring that the informal waste sector is integrated into these programmes can also improve overall waste recovery rates.

Regardless of any actions that reduce waste generation, the Philippines would profit from **investing in its waste-management infrastructure**. Significant investments are needed to develop and modernise waste management infrastructure across all islands. Actions would include building more materials recovery facilities (MRFs), upgrading existing waste collection and recycling systems, and establishing environmentally sound waste disposal sites. Furthermore, deploying advanced technologies for waste sorting and recycling can enhance efficiency and effectiveness. Public-private partnerships can play a vital role in financing and managing these infrastructure projects, as could a potential financial mechanism under a Global Plastics Treaty.

**Expanding public awareness and education to foster public engagement** will be crucial for the success of any waste-management or plastic-reduction strategy. Comprehensive education campaigns raise awareness about the importance of reducing plastic use, waste segregation, and the benefits of recycling. These campaigns should target various stakeholders, including schools, communities, and businesses. Additionally, promoting eco-labels and certifications could help guide consumers towards more sustainable choices. Educational initiatives should also include training programmes for waste management workers to improve their skills and knowledge.

Implementing these policy recommendations will require a collaborative effort involving multiple government agencies, private sector stakeholders, NGOs, and the general public. By addressing the issue from different angles, the Philippines can make significant strides towards reducing plastic pollution and protecting its rich marine life and environment.

### How would the Global Plastics Treaty help? Through its provisions the treaty could:

- By enhancing capacities and strengthen regulatory framework through its support for capacity-building initiatives and technical assistance
- By setting a level playing field through the introduction of EPR in other countries through its provision and guidance on EPR.
- By providing funds for investments into waste management from raising financial resources via the treaty's financial mechanism
- By fostering international collaboration through the provisions on international cooperation, information exchange and technology transfer (including regarding waste recycling infrastructure)
- By stimulating awareness-raising, education and research through the specific provisions on these issues.

# References


6Wresearch. 2022. Philippines Plastic Market. Accessed 2024 August 29.

Alliance to End Plastic Waste (AEPW). 2023. Collect, Certify, Circulate. Accessed August 2024.

Brock, Joe, John Geddie, and Saurabh Sharma. 2021. Big Oil's flagship plastic waste project sinks on the Ganges. Accessed August 2024.

Coca-Cola Philippines. Our World Without Waste Progress. 2022. Accessed August 2024.

Coordinating Body on the Seas of East Asia (COBSEA). 2021. Legal and Policy Guidance on Addressing Marine Litter in the Philippines: Gap Analysis and Needs Assessment.

Cowger, W., Willis, K.A., Bullock, S., Conlon, K., Emmanuel, J., Erdle, L.M., Eriksen, M., Farrelly, T.A., Hardesty, B.D., Wang, M. 2024. Global producer responsibility for plastic pollution. Science Advances. 10:17. DOI:10.1126/sciadv.adj8275

EA (Earth Action). 2024. Plastic Overshoot Day: Report 2024. Accessed June 2024.

Earth.org. 2024. Environmental Issues in the Philippines. Accessed 2024 August 29.

European Commission. End-of-Life Vehicles Regulation. Accessed 2024 July 19.

GIZ. 2023. Circular Solutions Finder: Innovations and Best Practices. Accessed August 2024.

Government of the Philippines, Department of Environment and Natural Resources. 2021. National Plan of Action (NPOA) for the Prevention, Reduction, and Management of Marine Litter. (accessed August 2024).

Greenpeace. 2024. Uncovered: Unilever's complicity in the plastics crisis and its power to solve it. Accessed August 2024.

ICLEI Southeast Asia. 2018. Unilever Strengthens Waste Recovery Efforts. Accessed August 2024.

INQUIRER.net. 2023. Coca-Cola Philippines Continues to Make Strides in Sustainability. Accessed August 2024.

Manila Bulletin. 2024. DENR's strict implementation of EPR Law key in reaching PH's circular economy goal, says Villafuerte. Accessed August 2024.

Mordor Intelligence. 2024. Philippines Plastics Market. Accessed 2024 August 29.

Nanotronics. 2021. By Pitching a Biodegradable Plastic Alternative, This Filipino Startup Won Big. Accessed August 2024.

Nestlé Philippines. 2021. Year one of plastic neutrality: Recovering 27,000 tonnes of waste. Accessed August 2024.

PCEPSDI (Philippine Center for Environmental Protection and Sustainable Development Inc). Green Choice Philippines. Accessed August 2024.

Philippine Center for Investigative Journalism (PCIJ). 2023. The Philippines finally going after plastic producers but some companies are not cooperating. Accessed August 2024.

Portsmouth University. 2022. Philippines Ecological Solid Waste Management Act. Accessed August 2024.

Prevent Waste Alliance. The SUP Challenge: Promoting Sustainable Alternatives. Accessed August 2024.

Republic of the Philippines. 2022. Philippine Action Plan for Sustainable Consumption and Production

(PAP4SCP). Accessed August 2024.

Republic of the Philippines. 2001. Ecological Solid Waste Management Act of 2000 (Republic Act No. 9003). Accessed August 2024.

Republic of the Philippines. 2022. Extended Producer Responsibility Act of 2022 (Republic Act No. 11898). Accessed August 2024.

Rethinking Plastics. Promoting Innovative and Sustainable Packaging. Accessed August 2024.

Rola, A. C. 2019. Challenges in Governance and Implementation of the Philippines' Solid Waste Management Programs: Focus on Plastics. Transactions NAST PHL 41 No. 2. doi.org/10.57043/transnastphl.2019.1672

Schachter, N. & Karasik, R. 2022. Plastic Pollution Policy Country Profile: Philippines. Accessed August 2024.

Sur, M., Shrestha J., Balota, A. 2023. Addressing the plastic pollution crisis in the Philippines: New momentum. World Bank Blogs.

UNCTAD database. Environment and related trade. Trade in plastic-based products. https://unctadstat.unctad.org/datacentre/. Accessed May 2024.

Unilever Philippines. 2023. Industry Steps Up Commitment to a Zero Waste Philippines. 2023. Accessed August 2024.

Unilever Philippines. Plastics. Accessed August 2024.

World Bank. 2022. Reducing Plastic Waste in the Philippines - An Assessment of Policies and Regulations to Guide Country Dialogue and Facilitate Action. 2022. Washington DC.

WWF. 2023. EPR Scheme Assessment for Plastic Packaging Waste in the Philippines. Accessed August 2024.

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