SEA circular
solving plastic pollution at source

country profile

THE PHILIPPINES

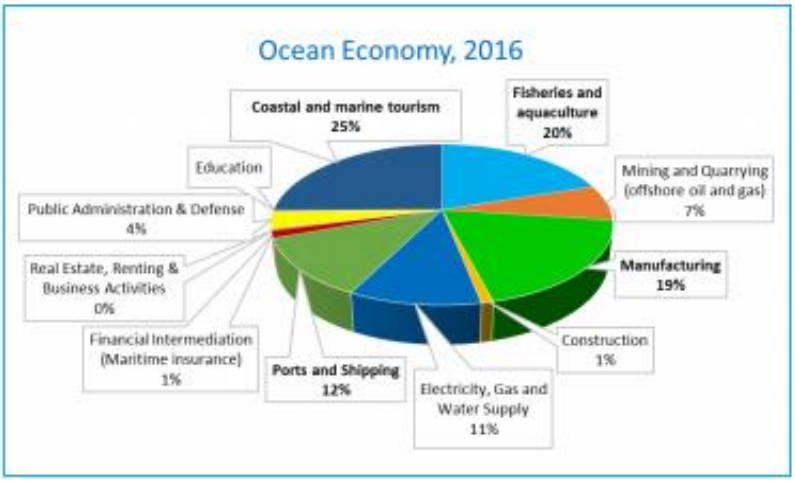
Socio-economic profile

The Philippines is the fourth largest economy in the ASEAN after Indonesia, Malaysia and Thailand. The country is spread across a total surface area of 300,000 sq. km., with a population of 107 million (2018), 47.4% of the total population reside within urban areas.

The country's Gross Domestic Product (GDP) in 2018 was US$331 billion, with an average annual growth rate of 6.2%. The GDP per capita in 2018 was US$3,104.[i] In 2017, the sectoral contribution to national GDP was: services (59.8%), industry (30.6%), and agriculture (9.6%).[ii]

Coastal and marine ecosystem and economy

The Philippines is an archipelago between the Philippine Sea and the South China Sea. The coastline spans 36,289 km, composed of 7,107 islands, where 62% of total population dwells. In 2015, Philippines' coastal economy contributed to 7% of national GDP.[iii] The Philippines' marine and coastal ecosystem is facing multiple threats including over fishing, habitat-destruction, over-development, pollution, oil spill and more. The Philippines is experiencing clogged waterways, and marine plastic waste in its islands and seas. The closure and rehabilitation of Boracay Island for six months in 2018-2019 is one of the latest example of marine and coastal pollution due to tourism and haphazard coastal development.



Fisheries and aquaculture

• Contributed US$ 2.37 billion in value added or 1.5% of the GDP in 2016, with 260,000 employed in this sector

Coastal and marine tourism

• Contributed around US$ 3 billion in value added, with around 900,000 employed in this sector

Ports and shipping

• Contributed US$ 1.4 billion in value added, employing around 700 thousand people

Plastics and plastics packaging:
Production and usage

In 2018, the manufacturing value added by the rubber and plastic products industry in the Philippines amounted to around 36.38 billion Philippine pesos, with approximately 0.4 percent share of the GDP.[iv]

The Philippines plastics market is expected to witness a compound annual growth rate (CAGR) of around 5% during the forecast period of 2019-2024.[v]

Plastic production in 2013 was 1,920 Metric tons (MT), out of which Polyvinyl Chloride (PVC) was 640 MT, Polystyrene (PS) was 520 MT, Polypropylene (PP) was 480 MT and Polyethylene (PE) was 280 MT.[vi]

UN environment programme

COBSEA
COORDINATING BODY ON THE SEAS OF EAST ASIA

Sweden Sverige

According to the Philippine Plastics Industry Association, Inc. (PPIA),[vii] there are 1,088 firms throughout the Philippines. The majority of the plastics companies are situated in the National Capital Region (NCR) with 642 firms. This is followed by CALABARZON area with 176 firms. While Central Luzon registered 87 firms. Central Visayas have 87 firms. Northern Mindanao and Davao regions registered 68 firms.

Plastic used for packaging was about 48% in 2017. In 2018, the number of packaging units consumed in the Philippines was approximately 65.8 billion units.[viii]

Packaging waste is the major contributor to marine litter and plastic pollution. In 2013, the annual per capita plastic use was about 8 kg/person. A waste audit conducted by the Global Alliance for Incinerator Alternatives (GAIA) revealed that Filipinos use more than 163 million plastic sachet packets, 48 million shopping bags, and 45 million thin film bags daily. The figures are based on 21 waste assessments conducted in 6 cities and 7 municipalities across the Philippines, with the national figures produced by extrapolating from local results.[ix]

Solid waste management

According to a report by the Senate Economic Planning Office(SEPO),[x] the country's waste generation steadily increased from 37,427.46 tonnes per day in 2012 to 40,087.45 tonnes in 2016, and is expected to increase by 165 percent to 77,776 tonnes by 2025.

In 2016, the average waste generated per capita at the city level was about 0.40 kg/person/day (urban: 0.79 kg/day, rural: 0.10 kg/day). On average, 52.31% of the MSW in the country is biodegradable waste, followed by plastic (10.55%), paper (8.70%), metals (4.22%), glass (2.34%), textile (1.61%), leather / rubber (0.37%), special waste consisting of household healthcare, E-waste, bulky waste, hazardous materials (0.37%) and residual waste mostly inert (17.98%).

According to the statistics released by Metropolitan Manila Development Authority (MDMA), 9872 tonnes/day of waste was generated in Metro Manila in 2018.[xi] In Manila, the majority of collected wastes are either hauled directly to a disposal site or taken to a transfer station. Transfer station staff load waste onto trailer trucks and haul the trailers to the landfill. Collection of solid wastes is mostly being managed by the local government unit (LGU). Highly urbanized cities hire private contractors through a tendering process as per requirement of the Philippine laws for collection of waste.

As of 2015, solid waste diversion rate in Metro Manila is 48% while outside Metro Manila the rate is 46%. Waste diversion refers to activities which reduce or eliminate the amount of solid waste from waste disposal facilities. The Ecological Solid Waste Management Act of 2000 (Republic Act 9003) mandates that every village or cluster of villages must set up a materials recovery facility (MRF) where biodegradable waste is converted into fertilizer, recyclable material is recycled or sold to junk shops, and residual waste is collected for transport to sanitary landfills. But as of 2016, about 9,883 MRFs are in operation in the country serving 13,155 barangays (31.3% of the 42,000 barangays in the country). Furthermore, out of 1,634 LGUs, only 345 (21%) have access to 144 sanitary landfill sites, and there are 379 operating illegal dumpsites in 1,634 LGUs. Plastic recycling in the Philippines is dominated by small and medium scale enterprises. The Department for Environment and Natural Resources (DENR), through the Environmental Management Bureau (EMB) maintains a list of recycling facilities in the Philippines. The list includes 23 plastic recycling facilities, 14 paper recycling facilities, 1 recycling facility specializing in car batteries, 1 for computer electronics, 1 for tin cans, 2 for metals, 6 for container glass, 1 for Tetra Pak, 6 for car tires.[xii]

Despite high collection rate (nationwide, about 40 to 85%, and 85% in Metro Manila), based on reports by WWF-Philippines, the country's National Solid Waste Management Commission, and the World Bank, about 74% of plastics leaking into the ocean (386,000 tonnes of plastic trash) comes from waste that has actually been collected by haulers and garbage trucks but disposed at poorly located dumps situated near waterways.[xiii] Only 26% or 135,000 tonnes of plastics in seas actually comes from garbage that is not collected .[xiv]

Marine litter status

Philippines is worldwide the 3rd largest contributor of marine plastic pollution with 0.28 – 0.75 million tonnes/year of plastic entering to oceans.[xv] The Philippines generates an estimated 43,684 tonnes of garbage daily, including 4,609 tonnes of plastic waste, and proper management of it causes the trash to piling up on land, clogging coastlines, and spilling into the sea. Marine plastic pollution in the country is evident through plastic litter collected in various cleanup activities, as shown in Table 1..

The Manila Bay clean-up conducted in 2014 [xvii] revealed that out of 1,594 litres of waste collected, majority 61.9% were plastics. Among 12 garbage types, plastic bags accounted 23.2%, plastic wrappers 18.8%, cigarette butts, clothes, rags and sponges 15.7%, rubber/discarded slippers 11.9%, biodegradables 9.7%, and 20.7% others.

Action on plastics: Key stakeholders

Government

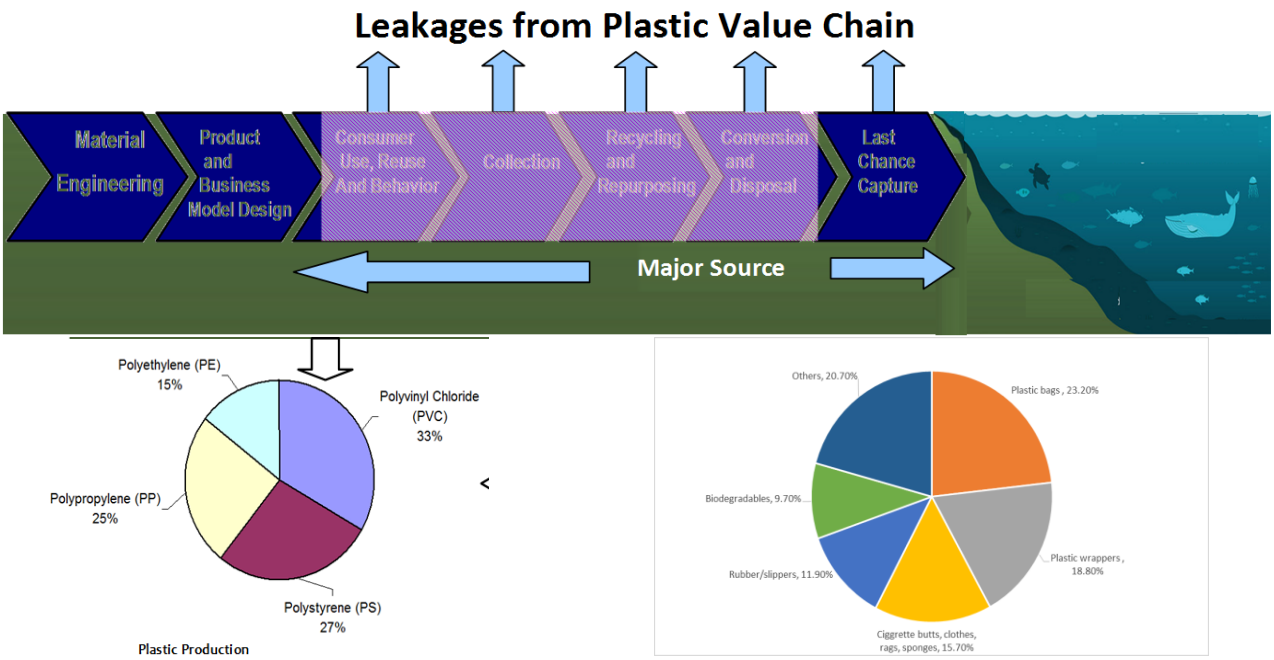
The Department of Environment and Natural Resources (DENR) is responsible for pollution, policy, regulations and standards as well as monitoring and control. DENR is the main national government agency for all concerns regarding the environment. Under the DENR, the Environmental Management Bureau (EMB) provides technical and financial assistance to local government units (LGUs) to assist them in the implementation of the RA 9003.

The National Solid Waste Management Commission (NSWMC), with Secretariat support from DENR-EMB, sets policies, prepares the National Solid Waste Management Framework, oversees the implementation of the RA 9003, approves solid waste management plans prepared by LGUs and prepares the National Solid Waste Management status Report. The National Ecology Centre, chaired by the Director of EMB, provides technical support to LGUs and establishes and manages a solid waste management database. The Department of Interior and Local Government (DILG), a regular member of the NSWMC, administratively supervises all LGUs in the implementation of the RA 9003. Under the RA 9003, the collection, transport, and disposal of solid waste are the responsibilities of LGUs. Director of the Environmental Management Bureau, Department of Environment and Natural Resources Quezon City, Philippines also serves as the contact point for the Coordinating Body on the Seas of East Asia (COBSEA).

The Barangay Solid Waste Management Committees handle the overall collection of biodegradable and recyclable waste, establish and manage Material Recovery Facilities, and conduct information and education campaigns. In Metro Manila, the Metropolitan Manila Development Authority (MMDA) is the LGU. The Solid Waste Management Office under MMDA monitors the compliance of the LGUs with the RA 9003. ULBs / LGUs are involved at project, level specifically for plastic waste. The Director of the Environmental Management Bureau, Department of Environment and Natural Resources (DENR) serves as COBSEA focal point.

Table 1: International Coastal Cleanup efforts and marine litter items (Number) found in the Philippines[xvi]

Country / location						People	KG	KM of coast	Total items collected
The Philippines						276,120	362,014	1731.9	7,866,415
Cigarette butts	Food wrappers (candy etc.)	Straws stirrers	Plastic forks Knives spoons	Plastic beverage bottles	Plastic bottle caps	Plastic grocery bags	Other plastic bags	Plastic lids	Plastic cups plates
434,275	2,029,991	283,720	132,574	479,061	335,640	491,970	482, 325	399,224	274,938



Private sector

The private sector (formal and informal) is involved in a major way in MSW collection, transportation and disposal. The Coordinating Council for Private Sector Participation (CCPSP) oversees and monitors private sector participation in public infrastructure and services programmes. Private sector participation in the solid waste sector covers waste collection, managing landfill sites and MRFs.

Thousands of people in the Philippines work in the informal waste sector either on dumpsites or collect waste from households or garbage collectors, aiding to country's recycling sector. The local government units/municipalities have integrated the waste scavengers into the recycling chain to formalize the informal sector. For example, in Quezon City, the Philippines, the approximately 3,000 waste pickers working at the Payatas landfill site are provided with a formal identification document, and child labour is banned. For the integration of the informal waste sector, resolutions, which have been passed (2010) include: Resolution adopting the National Framework Plan of the Informal Sector in Solid Waste Management; Resolution creating the Multi-Sectoral Committee for Capacity Development of the Informal Sector; Resolution adopting Prototype City/ Municipal Ordinance Regulating the Establishment and Operation of Junk Shops and Provide Corresponding Penalties.

In the formal private sector, institutions like Philippine Plastics Industry Association Inc. (PPIA), the Packaging Institute of the Philippines, Philippine Alliance for Recycling and Material Sustainability (PARMS) are engaged in the plastic and plastic packaging production and recycling activities. Private businesses are investing in modern recycling facilities in the country.

PARMS is an alliance of major corporations and business groups in the Philippines such as Mondelez Philippines, Coca-Cola Philippines, Pepsi-Cola Products Philippines, Unilever, Universal Robina Corp., Nestlé Philippines, Monde Nissin Corp., and Procter & Gamble Philippines, among others.

PARMS, in partnership with the local government, plans to build a 25 million PhP (US$ 0.46 million) recycling facility for sachets in Metro Manila. The facility will pulverize about 1 ton of plastic a day - equal to about 400,000 sachets to make sidewalk blocks and other products.

Efforts are being made to formalize waste picker initiatives as PPP solutions by giving informal recyclers/ junk shops concessions to collect or receive materials/ to operate recycling centres (for example in Quezon City).

Coca-Cola Beverages Philippines Incorporated (CCBPI) and Indorama Packaging signed a deal in March 2020 for the US$19 million recycling facility, slated for completion in 2021 in Cavite province, southwest of Manila. The state-of-the-art food-grade recycling facility aims to process 30,000 metric tonnes of used plastic—or nearly 2 billion clear plastic bottles—and produce 16,000 metric tonnes of recycled PET resin a year. In a bid to help boost bottle-to-bottle recycling, Coca-Cola Philippines has announced (on 14 November, during the SEA of Solutions 2019 partnership week on marine plastic pollution prevention — convened by SEA circular — to change the iconic green color packaging of their Sprite bottles into a clear bottle, as clear plastic is much easier to recycle.

Policy frameworks on MSW and marine litter

Global frameworks on marine litter

Philippines is a Party to several conventions, treaties and regulations related to coastal and marine environment protection including:

International Agreement: The 1972 Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matter (London Convention)

The Philippines has ratified the London Convention on 10 August 1973. The London Convention promotes the control of all sources of marine pollution and takes practicable steps to prevent pollution. Article IV Number 1(a) of the Convention states: 'The dumping of wastes or other matter listed in Annex I is prohibited'. Paragraph 4 of Annex I specifies persistent plastics and other synthetic materials (e.g. nettings and ropes), which might float or remain in suspension in the sea in a manner that could interfere with fishing, navigation, or other legitimate uses of the sea. Paragraph 11(d) of Annex I calls for the maximum removal of materials capable of creating floating debris or contributing to marine pollution from vessels and platforms or other man-made structures at sea.

International Convention for the Prevention of Pollution from Ships (MARPOL)

The Philippines has ratified (date of entry into force or succession from 15 September 2001) the Annex V of the International Convention for the Prevention of Pollution from Ships (MARPOL) in 1997. MARPOL is the key international agreement to prevent marine environment pollution caused by ships' operational and unintended activities. Annex V, enforced since 31 December 1988, specifically addresses the issue of plastic dumping from ships: 'The disposal into the sea of all plastics, including but not limited to synthetic ropes, synthetic fishing nets, plastic garbage bags and incinerator ashes from plastic products which may contain toxic or heavy metal residues, is prohibited'. Besides prohibition of plastic waste disposal, Regulation 3 number 2 of the Convention also calls for stricter regulations on mixed garbage discharge.

Basel Convention on the Control of transboundary Movements of hazardous Wastes and Their Disposal and the Ban Amendment

On 21 October 1993, Philippines ratified to the Basel Convention. The Basel Convention was designed to eliminate the risks from transboundary movements of hazardous and other wastes. In its initial version, the Convention covered several categories of waste, including wastes collected from households, but did not include the movement of solid plastic waste (including scrap plastic of non-halogenated polymers and co-polymers, cured waste resins or condensation products, and fluorinated polymer wastes) as listed in B3010 of Annex IX. In 1995, the Ban Amendment was adopted by the third meeting of the Conference of the Parties.

The 14th Meeting of the Conference of Parties to the Basel Convention in May 2019 agreed to include mixed, unrecyclable and contaminated plastic waste exports into the control regime that requires the consent of importing countries before waste exports can proceed. The amendment will be effective in January 2021. Philippines has not ratified the Basel Convention Ban Amendment on 24 October 2005.

Regional frameworks on marine litter

Philippines as the ASEAN member State has adopted "the Bangkok Declaration on Combating Marine Debris in the ASEAN Region" and "the Framework of Action on Marine Debris" in 2019.

The ASEAN Framework of Action on Marine Debris: The Framework of Action on Marine Debris

The Framework was developed to act on the recommendations from the ASEAN Conference on Reducing Marine Debris in ASEAN Region in Phuket in November 2017, taking into account the East Asia Summit (EAS) Conference on Combating Marine Plastic Debris in Bali in September 2017. The Framework comprises four (4) priority areas namely: (i) Policy Support and Planning; (ii) Research, Innovation, and Capacity Building; (iii) Public Awareness, Education, and Outreach; and (iv) Private Sector Engagement. Each priority area consists of actions and suggested activities for further collaboration in ASEAN region and among ASEAN and its partners in combating marine debris.

Bangkok Declaration on Combating marine debris in ASEAN region

ASEAN ratified the Bangkok Declaration on Combating Marine Debris and the ASEAN Framework of Action on Marine Debris at the 34th ASEAN Summit in Bangkok, Thailand on 22 June 2019.

The Coordinating Body on the Seas of East Asia (COBSEA) Regional Action Plan on Marine Litter

COBSEA brings together nine countries - Cambodia, People's Republic of China, Indonesia, Republic of Korea, Malaysia, the Philippines, Thailand, Singapore and Viet Nam in development and protection of the marine environment and coastal areas of the region, for the health and wellbeing of present and future generations. At the 24th Intergovernmental Meeting of the Coordinating Body on the Seas of East Asia (COBSEA) in June 2019, participating countries adopted the revised Regional Action Plan on Marine Litter to guide action on marine litter in the East Asian Seas region. The Regional Action Plan on Marine Litter will thereby directly support COBSEA participating countries to deliver target 14.1 of Sustainable Development Goal 14, to prevent and significantly reduce marine pollution of all kinds, particularly from land based activities, including marine debris and nutrient pollution, and also contribute to the achievement of other Sustainable Development Goals and associated targets.

National policy frameworks on municipal (plastic) waste management

The Philippines has a basic Act on Environment as well as regulations on air, water and waste management (Solid Waste and Hazardous Waste). The Philippine Local Government Code 1991 mandates local government units (LGUs) to take up the responsibility of solid waste management (collection, disposal, recovery) through the creation of Material Recovery Facilities in every barangay or cluster of barangays.

In December 2000, the Philippine Congress passed the Solid Waste Management Act (Republic Act no. 9003 [RA 9003]), which mandates various mechanisms of solid waste management and reduction. One particular provision of RA 9003 is the segregation of wastes and provision of recycling facilities. Issue of plastic and packaging waste are also addressed under RA 9003. The RA 9003 under Article 4, Section 27 states that "the Department of Trade and Industry shall formulate and implement a coding system for packaging materials and products to facilitate waste recycling and reuse". The LGUs implement and propose plastic use reduction measures by passing Ordinances.

Twenty-seven cities in the country have implemented a ban on plastics. e.g. Ordinance No. SP-2140 or the Plastic Bag Reduction Ordinance of the Quezon City (since 2012). Other Proposed bills on single-use plastics are: Senate Bill No. 1866 – Plastic Straw and Stirrer Ban of 2018, Senate Bill No. 430; Plastic Bags Regulation Act, and Senate Bill No. 2759 – Total Plastic Bag Ban Act of 2011; Philippine National Standards 2097:2014 or the PNS on Plastics Shopping Bags, PNS 2092:2011 on biodegradable plastics promote use of biodegradable plastic bags as alternative; "Plastic Bag Regulation Act of 2013" bill is under deliberation, requiring biodegradable plastics compliment the ongoing recovery and recycling programs.

The 10-Year National Solid Waste Management Plan illustrates the plans of LGUs for the reuse, recycling and composting of waste generated in their respective jurisdictions. As mandated by the RA 9003, three levels of LGUs (a Provincial SWM Board, a City/Municipality SWM, and a Barangay SWM Committee) should prepare, submit and implement the local 10 years SWM Plans, review the plan every 2 years, collect, manage, and dispose of special and residual waste. 83% of the LGUs (1634) have prepared and submitted their ten year SWM plans. 49% of the local government units (1634) in the country have approved Ten Year SWM Plans.

National policy frameworks on marine litter

In 1976, Presidential Decree No. 979 declared as national policy the prevention and control of the pollution of seas by waste dumping. The National Pollution Control Commission promulgates the national policy on marine pollution whilst the Philippine Coast Guard enforces it. The Philippine Government, through DENR is spearheading the development of a National Strategy on Marine Litter, which shall provide the basis for a subsequent National Policy and Action Plan on Marine Plastic Litter, in alignment with international frameworks.

Fiscal incentives

In 2018, the DENR earmarked 1.25 billion PhP (US$ 23 million) out of a national budget of 27 billion PhP (499 million US$) for the environmental protection programme for clean water, air and solid waste management.[xvii]

For most of the cities in the Philippines, the budget spent for waste management is about 20% of the LGUs' total budget.[xix] Budgetary requirements for SWM are sourced from the general funds of a city. Local governments are mandated by the Local Government Code to collect fees for services, however the fee collection is ad-hoc and does not cover the actual costs. Moreover, RA No. 9003 prohibits the littering, throwing, dumping of waste matters in public places, or causing or permitting the same. Any person who commits this offense shall, upon conviction, be fined for not less than P300 but not more than PhP 1,000, or render community service for not less than one day to not more than 15 days to an LGU where such prohibited acts are committed.

A nationwide legislation to minimize plastic use was also proposed in the Senate in 2018. The bill proposes to charge consumers for using single-use plastics and sought to ban the import and use of such packaging in traditional markets and restaurants. The bill also proposes penalties ranging from US$100 to US$10,000 for companies or small and medium businesses, as well as incentives in the form of special tax deductions for companies that pursue research and development in addressing the problem. However, the bill remains pending in both houses of Congress. In the absence of a national law, it's been left up to local officials to impose levies or ban the use of single-use plastics. A lot of cities in the Philippines have banned the use of plastics particularly in retail, food packaging and service, and goods delivery (dry goods and semi-expendable equipment). For instance, the local government of Quezon City instituted a PhP2 per plastic bag used in retail outlets and businesses (e.g., groceries) that will constitute the "green fund."

Conclusions

The increased consumption of single-use plastic items and inadequate and ineffective waste management causing a huge amount of plastic waste leak into the oceans, making the Philippines' plastic pollution crisis worse year by year.

Nonetheless, the country is taking actions and coming forward with enhancing institutional, technical and financial capacities of LGUs to manage municipal solid waste, including packaging waste.

The country is understanding that curbing plastics pollution requires collective action and proactive collaboration from all stakeholders in finding a way out of the plastics crisis.

Local solutions, such as attaching an economic value to collecting plastic litter in exchange for food are proving effective.

Other solutions involve integrating the informal waste sector in the plastic recycling value chain, promoting Extended Producer Responsibility and other regulatory measures, and enabling private businesses to invest in modernizing plastic recycling facilities.

The Philippines has demonstrated a commitment to fight marine plastic pollution by aligning with global and regional frameworks. These actions taken by the Government of the Philippines are significant steps towards turning the tide on plastics.

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