G20

Report on Actions against Marine Plastic Litter

Seventh Information Sharing based on the G20 Implementation Framework

2025

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Disclaimer: The report does not provide exhaustive documentation of all activities by G20 members, other countries and regions sharing the Osaka Blue Ocean Vision, and key international organisations; instead, it documents their ongoing efforts and best practices at the time of compilation, conducted between April 2025 and December 2025.

The information included in this report is based on voluntary submissions from G20 members, other countries and regions that share the Osaka Blue Ocean Vision, international organisations, and NGOs. For more details on the actions, please refer to the direct links in the annexure.

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Acknowledgement

This report is the seventh compilation of policies and measures undertaken by countries and international organisations worldwide to tackle marine plastic litter. Previous editions have been successfully published over the last six years. The 2025 report aims to identify the most recent trends in policies tackling marine plastic litter among G20 countries and regions that share the Osaka Blue Ocean Vision, as well as international organisations.

We thank the following G20 members, Invited/ Other Countries, and International Organisations for their inputs to the 7th Report:

G20 Members:

1. Australia
2. Canada
3. China
4. The European Union
5. France
6. Germany
7. Italy
8. Japan
9. Mexico
10. South Africa
11. The Republic of Korea
12. Türkiye
13. The United Kingdom

Invited Countries:

1. Mauritius
2. Myanmar
3. The Netherlands
4. New Zealand
5. Norway
6. Peru
7. The Philippines
8. Singapore
9. Spain
10. Thailand

International Organisations:

1. BRS Secretariat	Secretariat of the Basel, Rotterdam and Stockholm Conventions
2. ERIA	Economic Research Institute for ASEAN and East Asia
3. FAO	Food and Agriculture Organisation
4. GEF	Global Environment Facility
5. IAEA	International Atomic Energy Agency
6. OECD	Organisation for Economic Co-operation and Development
7. UN-Habitat	United Nations Human Settlements Programme
8. UNIDO	United Nations Industrial Development Organisation
9. WEF-GPAP	World Economic Forum (GPAP-Global Plastic Action Partnership)

We hope that this report will help promote policies and measures among the contributing countries and organisations through peer learning from best practices, as well as for the wider international community.

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Acronyms and Abbreviations

APEC	Asia Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CE	Circular Economy
CONAPESCA	Comisión Nacional de Acuacultura y Pesca (National Commission of Aquaculture and Fisheries)
COBSEA	Coordinating Body on the Seas of East Asia
EC	European Commission
EU	European Union
EPR	Extended Producer Responsibility
EPS	Expanded Polystyrene
ERIA	Economic Research Institute for ASEAN and East Asia
FAO	Food and Agriculture Organisation of the United Nations
G20	Group of Twenty
G7	Group of Seven
GEF	Global Environment Facility
GPAP	Global Plastic Action Partnership
HELCOM	Baltic Marine Environment Protection Commission - Helsinki Commission
ILBI	International Legally Binding Instrument
IMO	International Maritime Organisation
MARPOL	International Convention for the Prevention of Pollution from Ships
MPL	Marine Plastic Litter
MSFD	Marine Strategy Framework Directive
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
PE	Polyethylene
PET	Polyethylene terephthalate
PO	Polyolefin
PRO	Producer Responsibility Organizations
PS	Polystyrene
PVC	Polyvinyl chloride
R&D	Research and Development
SDGs	Sustainable Development Goals
SME	Small and Medium-sized Enterprises
SUP	Single-Use Plastics
UN	United Nations
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organisation

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Executive Summary

The Seventh G20 Report on Actions Against Marine Plastic Litter (MPL) provides a consolidated overview of the voluntary efforts undertaken by G20 members, invited countries, and international organisations to address the growing challenge of marine plastic pollution. Compiled under the leadership of the South African G20 Presidency, with support from the Ministry of the Environment, Japan, and the Institute for Global Environmental Strategies (IGES), the report reflects submissions received by December 2025 and highlights progress, innovation, and collaboration across regions.

The report reaffirms the G20's commitment to the Osaka Blue Ocean Vision, which aims to reduce additional marine plastic litter to zero by 2050. It also complements ongoing negotiations under the Intergovernmental Negotiating Committee (INC) towards a legally binding global instrument on plastic pollution, reinforcing the G20's role as a catalyst for international action.

The survey result suggests that countries are increasingly equipped with various policy instruments to strengthen frameworks for implementing multiple interventions at the national level. Over 83% of the participating countries have adopted national action plans and strategies with varying scopes: policies specific to controlling marine litter, those targeting the control of plastics and plastic products in the economy, and those with a broader scope, such as waste management and the circular economy.

Many now have enhanced legal foundations to address MPL, either by enacting topic-specific legislation for MPL and/or plastics, or by embedding/integrating dedicated sections in existing legal instruments with broader scope. Many jurisdictions combine several environmental laws that have different scopes, enacted over time. Enactments on emerging topics such as single-use plastics (SUP) and ghost fishing gear are also increasing. A majority of participating countries (16 in total) have developed or are in the process of creating at least one technical standard, guideline, or methodology. Still, in most cases, multiple tools are developed, which can, in some cases, as soft laws while in others as hard laws, complement existing plastic legislations and enhance implementation towards intended policy goals. Nearly all countries are employing indicators and targets to monitor the flow of plastics in the economy and the environment, as well as the progress of countermeasures; however, the range of indicators/targets monitored varies significantly among countries.

Countries are implementing a wide range of measures across the plastic value chain. The most widely implemented actions among all 23 responding countries include those for reducing SUP through regulations and voluntary measures, improving waste management and recycling systems, and conducting clean-up activities. In comparison, those for restricting microplastics in products (16 countries) and installing capturing equipment to prevent the leakage of macroplastics into the aquatic environment (14 countries) were less frequently reported. The reported measures also include promoting sustainable product design, phasing out single-use plastics through bans and levies, and expanding Extended Producer Responsibility (EPR) schemes. Notably, several countries are adopting eco-modulation and performance-based indicators to enhance EPR effectiveness. Investments in waste management infrastructure, clean-up activities, and the installation of traps and filters in rivers and coastal zones also contribute to reduced leakage.

Regarding actions on maritime sources of MPL, 19 countries have taken actions on ALDFG, 16 countries have implemented preventive measures, and 13 countries have explored recycling opportunities. Meanwhile, some have reported gear retrieval by CSOs, businesses, and foundations in the absence of government action. A few countries are preparing for stronger policy measures against ALDFG, including EU countries that are setting up national EPR schemes as part of the EU Single Use Plastics and Fishing Gear Directive, South Africa (fisheries management plans incorporating retrieval incentives), and Canada (Canadian Ghost Gear Action Plan set to be finalised by 2027), which may suggest renewed policy attention in this area.

The newly introduced section on Port Waste Reception inquired about the state of the systems for port waste reception, including the legal framework, institutions, facilities, and onshore procedures. Fifteen countries responded positively to having a legal framework, 16 for responsible institutions, 14 for waste reception facilities, and 11 for handling procedures once waste is on-shore. While the MARPOL treaty is considered to incentivize countries to develop relevant institutions and infrastructure, the section suffered a lack of reported information due to the low response rate.

Multi-stakeholder partnerships and public awareness campaigns are central to national strategies, with 95% of countries reporting active engagement. Around 70% also reported promoting R&D for innovative solutions through subsidy programmes and investment funds. Education on MPL is being mainstreamed into formal curricula, helping to build long-term societal awareness and behavioural change.

Monitoring and data management are improving, with 87% of countries conducting scientific research or field monitoring of MPL leakage. Life Cycle Assessment (LCA) and Material Flow Analysis (MFA) are used to inform policy decisions, although data gaps and methodological inconsistencies persist. Emerging technologies such as artificial intelligence, drones, and remote sensing are being explored to enhance monitoring capabilities.

International cooperation remains a cornerstone of MPL action. All 23 countries are involved in international cooperation and reported participation, compliance, and active engagement with existing multilateral environmental agreements, political forums, policy processes, scientific platforms, multi-stakeholder partnerships, and coalitions that encompass the control and protection of the environment from plastics. Eighteen countries also reported implementing international cooperation programmes and initiatives in particular regions.

These included engagement to multilateral policy processes such as UNEA and INC, ASEAN Working Group on Coastal and Marine Environment, EU Technical Working Group on Marine Litter; global MEA such as MARPOL and Basel Convention, regional conventions such as OSPAR and the Barcelona Convention; and alliances and knowledge platforms such as Global Partnership on Plastic Pollution and Marine Litter and Global Ghost Gear Initiative. International organisations continue to provide technical assistance, financing, and capacity building, with a growing emphasis on circular economy transitions and whole value chain approach.

The report concludes by highlighting replicable best practices and forward-looking strategies. Reported actions included key enablers for accelerating progress, such as MPL legislation; EPR, tax reform, and other cost recovery mechanisms; monitoring and data management systems (including data harmonization); public and private financing; but also included 3R initiatives, waste management system improvement, stakeholder engagement programmes, peer learning, and regional/international cooperation and MEAs. The G20 remains a vital platform for promoting global collaboration, innovation, and leadership in combating marine plastic litter.

1 Introduction

Background

Plastic pollution has emerged as a global environmental issue over the past decade, with policy attention sparked by a series of scientific publications that attempted to quantify the state of global plastic flow, stock, and environmental impact, as well as subsequent global calls for action. The OECD (2022) estimated that the global annual production of plastics has doubled in the past decade, from 234 million tonnes (Mt) in 2000 to 460 Mt in 2019, and is projected to grow by 70% by 2040 compared to 2020, if no action is taken. The increasing clarity of the linkage between plastic and human and environmental health, including the negative impacts on species and climate throughout its lifecycle, as well as the urgent need to transform our current take-make-waste plastic economy, is widely shared.

While the effort to reach an agreement on an international legally binding instrument (ILBI) on plastic pollution, including in the marine environment, is continuing at the time of writing through the political process under the Intergovernmental Negotiating Committee (INC), governments are also expected to take decisive actions to address the plastics issue domestically and globally.

The political consensus built over the past few years is evident through various global and regional processes, including UNEA, G7, ASEAN, the Pacific, and the EU. The G20 also played a crucial role in advancing MPL to a global policy discussion and accelerating countermeasures. During the 2017 G20 Hamburg Summit, leaders agreed on the G20 Marine Litter Action Plan to prevent and reduce marine litter. In 2019, at the G20 Ministerial Meeting on Energy Transitions and Global Environment for Sustainable Growth, Karuizawa, the “G20 Implementation Framework for Actions on Marine Plastic Litter” was established and endorsed by the G20 Leaders at the subsequent G20 Osaka Summit. During the Osaka Summit, leaders also shared the Osaka Blue Ocean Vision, which aims to reduce additional pollution from marine plastic litter to zero by 2050 through a comprehensive life-cycle approach, contributing to the MPL issue being discussed in global fora.

The G20 Report on Actions Against Marine Plastic Litter

The G20 Report on Actions Against Marine Plastic Litter is a product of the G20 Implementation Framework, which facilitates effective implementation of the G20 Action Plan on Marine Litter and aims at promoting information exchange and mutual learning among the G20 members and invited countries on actions against MPL based on voluntary reporting of their own actions by the contributing countries. Since its initial publication in 2019, the report has acted as a unique source of information for G20 members and non-members to understand the latest trends in countermeasures against MPL.

The 7th G20 MPL Report was prepared and published in October 2025, and updated in February 2026, under the leadership of the South African G20 Presidency for 2025, with the support of the Ministry of the Environment, Government of Japan (MoEJ), and knowledge partner the Institute for Global Environmental Strategy (IGES), which collectively formed a Joint Drafting Team. The report compiles the results of two surveys conducted from April to December 2025: one targeting countries and another on international organisations and NGOs active in the field of the MPL issue.

Methodology and Limitations

Survey templates (See Annex III) were co-developed by the Joint Drafting Team and distributed by the 2025 G20 South African Presidency to the members of the G20 Environment and Climate Sustainability Working Group, invited countries, and organisations in April 2025. This report synthesises submissions from 23 countries (13 G20 members and 10 invited countries) and nine international organisations received by the Secretariat of the Joint Drafting Team by 20 December 2025.

The retrieved inputs were coded and compiled based on the information provided by respondents. However, for the questions where respondents selected none of the presented multiple responses but provided descriptive responses, the selection of multiple-choice responses was complemented by the drafting team based on their best possible judgment to interpret them. Efforts were also made to categorize responses for further analysis, where possible, including re-categorizing responses from one question to another that could better inform other inquiries.[1] Some of the information submitted in previous editions of the Report was also reported this year. This report incorporates existing content, while also incorporating newly reported information.

There are certain limitations to the present report: Since the country information is submitted voluntarily, the participating countries differ from year to year, posing challenges to the comparability of the results over time. The reported information differed widely in terms of volume, depth, and granularity, and is sometimes not considered an exhaustive list of country actions on MPL, again presenting an issue of comparability. However, the authors trust that this does not defeat the purpose of the report: promoting cross-country learning of actions against MPL.

The complete information on each country, as submitted, is made available online at the G20 Implementation Framework for Actions against Marine Plastic Litter website (https://g20mpl.org/) and can be accessed via the QR codes listed in Annex I of this report.

We hope that this publication will facilitate enhanced actions and mutual learning among countries to collectively address MPL at local, national, regional, and global levels.

1 Detailed description of actions reported by countries varied with some illustrating generally and comprehensively while others referring to specific policy tools and/or approaches. The additional categorization and analysis of policy tools / approaches presented in the report are intended to derive new insights from such unstructured responses. As a result, some of the reported country actions that are difficult to categorize are left unmarked in the coding process. For Chapter 5: International Cooperation, efforts were made to gain additional information from web-based sources to complement the country information to the possible extent.

Section A

Initiatives by Countries

2

Policy Framework for Marine Plastic Litter (MPL)

Countries continue to demonstrate a strong commitment to addressing marine plastic litter (MPL) through the development and implementation of structured policy frameworks and strategies. According to the most recent data from 23 participating countries, 19 (83%) have already formulated national action plans or strategies targeting MPL, while in the remaining four (17%), such documents are either in preparation or not currently available. This reflects a sustained global effort to tackle plastic pollution through coordinated national responses.

Legislation remains a key pillar in national initiatives. All 23 countries have enacted laws related to MPL, including those focused on waste management and circular economy principles. Of these, 70% reported having developed legislation, while 30% reported that existing laws are in place, and new legislation is also being prepared. This widespread legal foundation underscores the importance of regulatory measures in mitigating the environmental impact of plastic litter.

The progress in establishing MPL-specific indicators, targets, and data collection frameworks is robust. A total of 21 (91%) countries have developed these tools, enabling more effective monitoring, evaluation, and accountability. However, variations are observed among countries in the state of development and implementation of technical standards, guidelines, and methodologies, which are instrumental in inducing behavioural changes among actors. While 70% of countries reported having these instruments in place, others are still in the preparatory phase, do not have such instruments, or did not respond, highlighting the need for continued action to strengthen the relevant national institutions further.

Figure 1 illustrates these updated findings, showcasing the strides made by countries in developing these policy instruments including national action plans, legislation, targets/indicators, standards, guidelines, and methodologies. Despite these advances, further development of technical standards and methodologies remains an essential gap towards ensuring effective management of MPL across countries. Given the cross-border nature of MPL, strengthening these areas will be crucial for fostering international collaboration and achieving significant reductions in MPL.

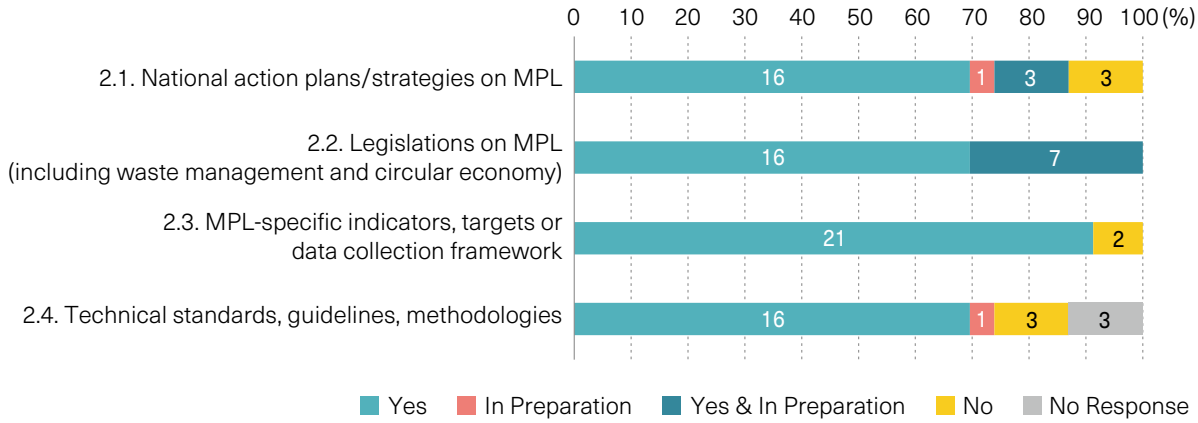


Figure 1: Status of the prevalence of the policy framework for MPL in countries

2.1. National Action Plans

There is a growing international consensus that marine litter, particularly MPL, must be addressed through coordinated national actions and international cooperation. Reflecting this recognition, countries are increasingly developing and implementing comprehensive policy frameworks, such as national action plans and strategies, to address MPL (Table 1). These frameworks are supported by a combination of legislative actions and targeted measures as detailed in later chapters. While the scope of these policy frameworks is different from one document to another, they can be categorised into three distinctive groups:

- *Marine Litter-specific Policies:* These policies focus specifically on addressing marine litter/MPL) and may include, but are not limited to, actions for reducing the emission of litter into the natural environment, enhancing clean-up efforts, and preventing plastic pollution. Examples include the Philippines' National Plan of Action for the Prevention, Reduction and Management of Marine Litter (NPOA-ML) and Singapore's National Action Strategy for Marine Litter (NASML). The policies for protecting the marine environment, which include actions to prevent marine pollution, such as the UK Marine Strategy and Thailand's Maritime Strategy, were also reported.
- *Plastic-specific Policies*: Substance/product-specific policies focus on the management of plastics, plastic products, and products containing plastics in the economy and, in some instances, in the environment. Such policies may include interventions across the plastic value chain from production upstream to waste management, with increasing emphasis on plastic circularity. Examples include France's National "3R" Strategy on Single Use Plastic Packaging (2021–2025 and 2026–2030), Myanmar's National Plastic Management Action Plan (2026–2030), and the Norwegian Plastics Strategy (2021).
- *General Waste Management and Circular Economy Policies:* These policies provide broader frameworks to strengthen systems for sustainable waste management and enable the transition to a circular economy across sectors, materials, and promote sustainable production, consumption, and disposal of resources. Notable examples include South Africa's National Waste Management Strategy (2020), Australia's Circular Economy Framework (2024), the Dutch National Circular Economy Strategy (2025), and Germany's National Circular Economy Strategy (2025).

Most countries are adopting a hybrid approach, combining policies from these three categories to provide a framework that allows for a multitude of interventions, thereby enhancing synergies, policy coherence, and effectiveness. For instance, Japan has implemented a suite of policies, including the National Action Plan for Marine Plastic Litter (2019), the Plastic Resource Circulation Act (2021), and the 5th Fundamental Plan for Establishing a Sound Material-Cycle Society (2024). In other instances, a plastic action plan constitutes part of a broader strategy. For example, the EU Strategy for Plastics in a Circular Economy (2018) was developed as part of its Circular Economy Action Plan (2015).

The diversity of national responses is evident in the range of strategies shared by the G20 members and the invited countries:

- Canada has advanced its Canada-wide Strategy on Zero Plastic Waste, with Phases 1 and 2 completed, and is preparing the Canadian Ghost Gear Action Plan for finalisation by 2027.
- France has developed multiple roadmaps, including the National Roadmap against Marine Litter (2019–2025) and the "3R" Strategy on Single-Use Plastic Packaging (2021–2030).
- Mexico has adopted National Policy for Seas and Coasts, while also is in the process of developing National Action Plan for Marine Debris and Plastic Pollution.
- The United Kingdom has implemented a multi-tiered strategy across its constituent nations, including the UK Marine Strategy, Scotland's Circular Economy Act (2024), and Northern Ireland's Plastic Pollution Plan.

Regional and international instruments, as well as cooperation, also play a vital role in policy development at the national level. Some countries reported the development of policies as part of their national implementation of international legal instruments, such as the EU's directives and multilateral environmental agreements (MEAs). For instance, the Netherlands developed its national policy to embed the implementation of OSPAR Marine Litter Regional Action Plan (2022–2030), while also implementing the EU 2019/904 and EU Port Reception Facilities Directive. The National Plastic Management Action Plan (2026–2035) of Myanmar was developed to advance the circularity of plastics, to contribute to regional efforts, such as the ASEAN Regional Action Plan for Combating Marine Debris.

In some instances, actions are also embedded in long-term national development agendas. Türkiye's 12th National Development Plan (2024–2028) integrates environmental sustainability into broader economic and social goals, and is an example.

In summary, the majority of the participating countries have already prepared, or are in the process of preparing, a national policy framework, combining multiple policies whose scope range from marine litter, plastics, and to sustainable waste management and circular economy transition, underpinned by strong legislation and international cooperation, which is essential to effectively combating MPL. The national action plans reported by participating countries demonstrate the diverse and decisive steps being taken globally to mitigate the pervasive impact of plastic pollution and protect marine ecosystems.

Table 1: Summary of national action plans by countries

Country	National Action Plans
G20 Members	
Australia	• Australia's Circular Economy Framework (2024) • National Waste Policy Action Plan (2024) • Australia's Strategy For Nature 2024–2030
Canada	• Canada-wide Action Plan on Zero Plastic Waste (Phase 1, 2019, and Phase 2, 2020) • Canada-wide Strategy on Zero Plastic Waste (2018) ***In preparation*** • Canadian Ghost Gear Action Plan (set to be finalised by 2027)
China	• Opinions on Further Strengthening Plastic Pollution Control (2020) • Plastic Pollution Control Action Plan (2021–2025)
The European Union (EU)	• EU Strategy for Plastics in a Circular Economy (2018) – part of the Circular Economy Action Plan (2015) ***In preparation*** • Circular Economy Act (2024–2029)
France	• Action Plan for the Marine Environment (Marine Strategy Framework Directive – MSFD) • Biodiversity Plan (2018) • National Roadmap against Marine Litter (2019–2025) • National Roadmap for a Circular Economy (CE) • National "3R" strategy on single use plastic packaging (2021–2025 and 2026–2030)
Germany	• National Circular Economy Strategy (NCES) (2025) • Marine Strategy Framework Directive (MSFD) Programme of Measures (PoM) (2022) • Action Plan "No to Throw-away Society" (2018) • Member of the High Ambition Coalition to end plastic pollution
Italy	• Implementation of the Directive 2008/56/EC on Marine Litter and the Regional Plan on the Marine Litter Management in the Mediterranean in the Framework of Article 15 on the Land Based Sources Protocol
Japan	• National Action Plan for Marine Plastic Litter (2019) • Basic policy for comprehensively and effectively promoting coastal debris countermeasures (2019) • Resource Circulation Strategy for Plastics (2019) • The 5th Fundamental Plan for Establishing a Sound Material-Cycle Society (2024) • The Plastic Resource Circulation Act: Basic Policy (2021) • Roadmap for Bioplastics Introduction (2021)
Mexico	• National Policy for Seas and Coast • National Diagnosis to combat ghost fishing nets in Mexico ***In preparation*** • National Action Plan for Marine Debris and Plastic Pollution • National Diagnosis to combat ghost fishing nets in Mexico
The Republic of Korea	• 1st Framework Plan for Management of Marine Debris and Contaminated Marine Sediment (2021–2030) ***In preparation*** • Revisions to the 1st Framework Plan above is currently being proposed
South Africa	• National Waste Management Strategy (2020)

Country	National Action Plans
Türkiye	• 12th National Development Plan of the Republic of Türkiye (2024–2028) • National Action Plan for Land-Based Pollutants (2023–2028)
The United Kingdom (UK)	• UK Marine Strategy • Environmental Improvement Plan 2023 (EIP23) • Litter Strategy for England (2017) • Waste Prevention Programme for England (2023) • Marine Litter Strategy (Scotland) • National Litter and Flytipping Strategy (Scotland) • Scotland's Circular Economy and Waste Route Map to 2030 (Scotland) • Plastic Pollution Plan for Northern Ireland • Draft Circular Economy Strategy for Northern Ireland • The Northern Ireland Waste Prevention Programme • The Northern Ireland Marine Litter Strategy • Wales Waste Prevention Programme (2013–2050)
Invited/Other Countries	
Myanmar	• National Plastic Management Action Plan (2026–2035)
Norway	• Norwegian Plastics Strategy (in Norwegian: Noregs plaststrategi) (2021) • A national strategy for a Green, Circular Economy was launched in 2021
The Netherlands	• European Marine Strategy Framework Directive (Directive 2008/56/EC) • Dutch Programm of Measures – Specific Measures to Reduce Marine Litter (2022–2027) • OSPAR Marine Litter Regional Action Plan (2022–2030) • Various European policies focused on reducing Marine Litter, e.g. implementation of the Single Use Plastics and fishing gear (Directive and EU 2019/904 and EU Port Reception Facilities Directive (EU) 2019/883) • National policies focused on the prevention of litter (macro- and microplastics) • National Circular Economy Programme (2023–2030)
New Zealand	• Waste Minimization Act 2008 • Litter Act 1979
Peru	N/A
The Philippines	• National Plan of Action for the Prevention, Reduction and Management of Marine Litter (NPOA-ML)
Singapore	• National Action Strategy for Marine Litter (NASML)
Spain	• Marine Strategies Programme of Measures on Marine Litter (2022–2027)
Thailand	• Thailand Maritime Strategy ***In Preparation*** • Regional Litter Project (RegLitter)

2.2. Legal Framework

As of 2025, countries have significantly strengthened their legal foundations to address MPL, either by enacting topic-specific legislations for MPL and/or plastics, or by embedding/integrating dedicated sections in existing legal instruments with broader scope – including those on environmental, waste management, and circular economy. These legal frameworks regulate the entire lifecycle of plastics—from production and consumption to disposal, recycling, and marine protection—and are based on a holistic approach to mitigating plastic pollution.

As shown in Table 2, many participating countries have enacted several environmental laws with varying scopes over time to address MPL and broader plastic circularity. Australia enforces *the Environment Protection and Biodiversity Conservation Act (1999)*, *the Recycling and Waste Reduction Act (2020),* and *Marine Order 95 (2018)*, each of which regulate certain aspects of plastic pollution, such as plastic waste exports, packaging, and marine pollution from ships. Canada applies *the Canadian Environmental Protection Act (1999)* alongside newer instruments such as *the Single-use Plastics Prohibition Regulations (2022)* and *the Federal Plastics Registry (2024)*, with additional laws targeting microbeads, fisheries, and hazardous products. Japan has developed a layered legal framework that includes *the Plastic Resource Circulation Act (2021)*, *the Act on Waste Management and Public Cleaning (2022),* and *the Act on Promoting the Treatment of Marine Debris (2018)*.

Many countries have also introduced specialized laws to address the most problematic forms of plastic pollution, such as single-use plastics and ghost fishing gear. The European Union enforces *the Single-Use Plastics Directive (2019)*, *the Port Reception Facilities Directive (2019),* and is preparing new regulations on plastic pellet losses. *The Packaging and Packaging Waste Regulation (2025)* further strengthens circular design standards. France implements *the "3R" Decree for Reducing Single-use Plastic Packaging* and *the Legislation against Waste and for a Circular Economy (2020)*. Italy has banned microplastics in personal care products, non-compostable plastic bags, and plastic cotton buds, while introducing the *Salvamare Law (2022)* to regulate marine waste collection and the recycling of fishing gear.

Efforts to harmonize legal instruments across jurisdictions are also accelerating. To implement the EU directives nationally, the Netherlands has revised its *Environment and Planning Act (2024) and Packaging Decree (2021)*, which address plastic pollution and pellet loss. The United Kingdom has a multi-tiered legal approach across its devolved administrations, including laws such as *the Marine Strategy Regulations (2010), the Plastic Packaging Tax (2022), and the Circular Economy (Scotland) Act (2024)*. Myanmar and Thailand are updating national waste strategies and preparing new packaging and coastal waste management laws to align with regional sustainability goals.

Several countries are pioneering new legal instruments to address emerging challenges. Germany has strengthened its *Packaging Act and Circular Economy Law (KrWG)* with provisions specific to the marine sector. South Africa has introduced *the Plastics Master Plan* and *Extended Producer Responsibility Regulations (2021)* to promote sustainable production and consumption. The Philippines enforces *the EPR Act (2022)* and has declared several plastic products as non-environmentally acceptable through national resolutions. Spain is preparing royal decrees to regulate fishing gear, single-use plastic wipes, and balloons.

In summary, continuous legislative actions demonstrate a decisive global shift towards comprehensive, enforceable, and forward-looking regulations to combat MPL. By integrating MPL into broader environmental laws and introducing new instruments on specific types and sources of plastics, countries are laying the groundwork towards the ambition of zero plastic pollution.

Table 2: List of legal instruments reported by countries

Country	Legal Instruments
G20 Members	
Australia	• Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) • Recycling and Waste Reduction Act 2020 (RAWR Act) • Recycling and Waste Reduction (Export—Waste Plastic) Rules 2021 (Waste Plastic Rules) • Hazardous Waste (Regulation of Exports and Imports) Act 1989 (Hazardous Waste Act) • National Environment Protection (Used Packaging Materials) Measure 2011 • Protection of the Sea (Prevention of Pollution from Ships) Act 1983; Marine Order 95 (Marine pollution prevention – garbage) 2018
Canada	• Canadian Environmental Protection Act (1999) ◦ Microbeads in Toiletries Regulations (2017) ◦ Single-use Plastics Prohibition Regulations (2022) ◦ Federal Plastics Registry (2024) • Fisheries Act • Species at Risk Act (2002) • Canada Shipping Act (2001) • Canada Water Act • Hazardous Products Act ***In preparation*** • Recycled content and labelling rules for plastics: Regulatory framework paper outlining a regulatory proposal published in 2023
China	• Marine Environment Protection Law of the People's Republic of China (2023 Amendment) • Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste (2020 Amendment) • Circular Economy Promotion Law of the People's Republic of China (2018 Amendment)
The EU	• Legislation on Waste (starting in the 1970s) • Packaging and Packaging Waste Directive 94/62/EC (PPWD) and now the Packaging and Packaging Waste Regulation 2025/40 (PPWR), • Marine Strategy Framework Directive (MSFD). • The Directive on Port Reception Facilities for the delivery of waste from ships (2019) • The Single-Use Plastic Directive, focusing on the most frequently found marine litter (including fishing gear containing plastic) (2019) • The European Committee for Standardisation as regards circular design of fishing gear (2021) • A Zero Pollution Action Plan in May 2021 ***In preparation*** • Proposal for a Regulation on Plastic Pellets Losses
France	• The Legislation for Energy Transition for Green Growth (2015) • The Legislation for Reclaiming Biodiversity, Nature and Landscapes Law (2016) • The Legislation for Trade Relations Balance in the Agricultural Sector and Healthy and Sustainable Diet (EGAlim, 2018) • The Legislation against Waste and for a Circular Economy (2020) • "3R" Decree for Reduction, Reuse, and Recycling of single-use plastic packaging for the 2021–2025 period • (EU) PPWR – Packaging and Packaging Waste Regulation • EU regulation on preventing the loss of plastic pellets

Country	Legal Instruments
Germany	• Circular Economy Act (KrWG) • Federal Water (Resources) Act (WHG) • High Seas Dumping Act (HSEG) • Packaging Act (VerpackG)
Italy	• Legislative Decree 3 April 2006, n. 152, also known as the "Environmental Code" (Codice dell'Ambiente) (2006) • National legislative measure to reduce the improper discarding of small and micro waste (receipts, chewing gum, tissues, cigarette butts, etc.) in the environment (2015) • National legislative measure: ban on light and ultralight plastic shopping bags that are not biodegradable and compostable (2018) • National legislative measure: ban on microplastics in soaps, creams, toothpastes (2018) • National legislative measure: ban on plastic cotton buds' sticks (2019) • European Plastic Pact (EPP) (2020) • Transposition of DIRECTIVE 2019/904/EC on the reduction of the impact of certain plastic products on the environment. D.Lgs 196/2021 • Transposition of DIRECTIVE 2019/883/EC on port reception facilities for the delivery of waste from ships, amending Directive 2010/65/EU and repealing Directive 2000/59/EC. D.Lgs 197/2021 • Updated Programme of measures according to Article 13 of the MSFD, 2021 • National Strategy for Circular Economy, 2022 • Salvamare Law May 2022, n. 60: defines the methods of passively fished waste; regulates cleaning campaigns aimed at voluntary collection; promotes circular economy and the criteria and methods by which passively fished waste cease to be classified as waste; regulates the management of stranded plant biomass and the measures for the collection of floating waste in rivers; defines the monitoring and control activities of the marine environment; regulates information and awareness campaigns for the achievement of the purposes of this law, including in schools • Decree 27 October 2023, Definition of the minimum national annual collection rate of discarded fishing gear containing plastic for recycling • Legislative Decree 8 March 2024, n. 46; update of D.Lgs 197/2021 on port reception facilities for the delivery of waste from ships. ***In Preparation*** • "Strategia nazionale per la lotta contro l'inquinamento da plastica" (National strategy to combat plastic pollution).
Japan	• Act on Waste Management and Public Cleaning (1970, formulated in 2022) • Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging (1995) • Act on Promotion of Resource Circulation for Plastics (2021) • Law Concerning Special Measures for Conservation of the Environment of the Seto Inland Sea (1973, 2022) • Act Concerning Sophistication of Recycling Business, etc. to Promote Resource Circulation (2024) • Act on Promoting the Treatment of Marine Debris Affecting the Conservation of Good Coastal Landscapes and Environments to Protect Natural Beauty and Variety (2009, 2018) • The Basic Act on Establishing a Sound Material-Cycle Society (2000) • Act on the Promotion of Effective Utilization of Resources (2000, 2025)
Mexico	• General Law for the Prevention and Integral Management of Waste (LGPGIR) was published in October 2003. (official instrument in force) • Prevention and sound waste management Law and Regulation ***In Preparation*** • General Law on Circular Economy

Country	Legal Instruments
The Republic of Korea	• Management Act on Marine Debris and Contaminated Marine Sediment (2019) • Act on Promotion of Transition to Circular Economy and Society (2022)
South Africa	• National Environmental Management Waste Act 2008 • National Waste Management Strategy 2020 • Extended Producer Responsibility Regulations 2021 • Plastic Bag Regulations 2003 and Amendments 2021 • South African National Standard (SANS) 695 (Compulsory Specification for Plastic Carrier Bags to improve recyclability of plastic bags) • Plastics Master Plan, which is intended to serve as South Africa's national action plan to tackle plastic pollution and achieve sustainable production and consumption of plastics. ***In Preparation*** • An international legally binding instrument on plastic pollution, including in the marine environment.
Türkiye	• Circular on the Preparation and Implementation of Marine Litter Provincial Action Plans by Law on Zero Waste (2019) • By-Law on Zero Waste (2019) • Communiqué No. 6/1 on the Regulation of Fishing for Commercial Purposes (2024) • Fisheries Law No. 1380 and the Regulation on Aquaculture (2004) ***In Preparation*** • National Circular Economy Strategy and Action Plan (Draft) • Single Use Plastics, Marine Litter and Microplastics Roadmap (Draft)
The UK	***Administration: United Kingdom*** • The Marine Strategy Regulations 2010 • The Merchant Shipping (Prevention of Pollution by Garbage from Ships) Regulations 2020 • The Merchant Shipping and Fishing Vessels (Port Waste Reception Facilities) 2003 (as amended) • Plastic Packaging Tax (2022) • EU Waste Shipment Regulations • UK Transfrontier Shipment of Waste Regulations. • The Environmental Protection Act 1990 and Litter (Northern Ireland) Order 1994 • Landfill tax 1996 (Scottish Landfill tax and Landfill Disposal Tax (Wales)) ***Administration: England*** • Environmental Protection (Microbeads) (England) Regulations 2017 • The Environmental Protection Regulations 2020 (Plastic Straws, Cotton Buds and Stirrers) (England) • The Single Use Carrier Bags Charges (England) (Amendment) Order 2021 • The Marine Licensing (Exempted Activities) Order 2011 • The Environmental Protection (Plastic Plates etc. and Polystyrene Containers etc.) (England) Regulations 2023 ***Administration: Northern Ireland*** • Environmental Protection (Microbeads) Regulations (Northern Ireland) 2018 • legislation to ban microbeads from certain personal hygiene products. • Single Use Plastic (SUP) Directive • Single Use Carrier Bags Charge (Amendment and Revocation) Regulations (Northern Ireland) 2022 • Packaging Waste (Data Reporting) Regulations (Northern Ireland) 2023 • Climate Change (Northern Ireland) Act 2022 • The Waste (Circular Economy) (Amendment) Regulations (Northern Ireland) 2020 • Guidance to district councils: litter

Country	Legal Instruments
The UK	***Administration: Scotland*** • The Environmental Protection (Single-use Plastic Products) (Scotland) Regulations 2021 (legislation.gov.uk) • The Single Use Carrier Bags Charge (Scotland) Regulations 2014 • The Environmental Protection (Microbeads) (Scotland) 2018 • The Environmental Protection (Cotton Buds) (Scotland) 2019 • The Deposit and Return Scheme for Scotland Regulations 2020 • Code of Practice on Litter and Refuse (2018) • Environmental Protection Act 1990 • Regulatory Reform (Scotland) Act 2014 • The Marine Licensing (Exempted Activities) (Scottish Inshore Region) Order 2011 • The Circular Economy (Scotland) Act 2024 ***Administration: Wales*** • Waste (Wales) Measure 2010 • The Single Use Carrier Bags Charge (Wales) Regulations 2011 • The Environmental Protection (Single-use Plastic Products) (Wales) Act 2023. The Environmental Protection (Microbeads) (Wales) 2018 • Waste Separation Requirements (Wales) Regulations 2023
Invited / Other Countries	
Mauritius	• The Environment Act 2024 • The Waste Management and Resource Recovery Act 2023 • The Environment Protection (Control of Single Use Plastic Products) Regulations 2020 • The Environment Protection (Banning of Plastic Bags) Regulations 2020 • The Environment Protection (Polyethylene Terephthalate (PET) Bottle Permit) Regulations 2001
Myanmar	• Environmental Conservation Law (2012) • Environmental Conservation Rules (2014) • Myanmar National Waste Management Strategy and Master Plan (2018–2030) ***In Preparation*** • Standard Operating Procedure (SOP) for Industries and Urban Waste Management in Coastal Area
Norway	• The Pollution Control Act • The Marine Resources Act • The Product Regulations chapter 2b • The Product Control Act • The Harbour and Fairways Act • The regulations relating to pollution control, Chapter 32A • Waste Regulation • Ship Safety and Security Act • Act on Sustainable Products and Value Chains ***In preparation*** • EU's packaging and packaging waste regulation, an extended producer responsibility scheme for textiles, and upcoming eco-design requirements related to different products containing plastic
The Netherlands	• The EU Marine Strategy Framework Directive (Directive 2008/56/EC) – adopted in the Dutch Water Act. • Environmental Management Act (last revised in 2024) • EU Packaging and Packaging Waste Directive (Directive 94/62/EC),

Country	Legal Instruments
The Netherlands	• EU directive on the reduction of the impact of certain plastic products on the environment (Directive 2019/904) • A new EU regulation on preventing plastic pellet losses, currently in the translation phase (political agreement has been reached). • Implemented in the Dutch packaging decree (last revised in 2021) • Implemented in the Dutch single use plastics decree (2021)
New Zealand	• Waste Minimization Act 2008 • Litter Act 1979
Peru	• Legislative Decree No. 1278 "Solid Waste Management Law." This legislative decree was approved in 2017 by the Peruvian president • Law No. 30884 "Law Regulating Single-Use and Disposable Plastic Packaging or Containers", approved in 2018 by the President of the Republic • Supreme Decree No. 003-2020-PRODUCE "Roadmap towards a circular economy in the industrial sector". This legal instrument was approved in 2020 • Supreme Decree No. 011-2023-PRODUCE "Roadmap towards a circular economy in the fishing and aquaculture subsectors" • Supreme Decree No. 007-2024-HOUSING "Roadmap towards a circular economy in drinking water and sanitation by 2030"
The Philippines	• EPR Act of 2022 (RA No. 11898) • Ecological Solid Waste Management Act of 2000 (RA 9003) • Republic Act (RA) 6969: Toxic Substances and Hazardous and Nuclear Waste Control Act of 1990; Department Administrative Order (DAO) 2013-22: Revised Procedures and Standards for the Management of Hazardous Wastes (Revising DAO 2004-36) • NSWMC Resolution No. 1428 "Resolution Declaring The Plastic Soft drink Straw and Plastic Coffee Stirrer as Non-Environmentally Acceptable Products • NSWMC Resolution No. 1707 Series of 2024 "Resolution Declaring the List of Non-Environmentally Acceptable Products and Packaging • Marine Pollution Decree of 1976 (Presidential Decree 979) • Philippine Clean Water Act of 2004 (RA 9275)
Singapore	• Environmental Protection and Management Act (EPMA) • Environmental Public Health Act (EPHA) and subsidiary legislation; • Sewerage and Drainage Act • Sewerage and Drainage (Trade Effluent) Regulations; • Prevention of Pollution of the Sea Act (PPSA) • Resource Sustainability Act (RSA)
Spain	• Law 41/2010, 29th December, on protection of the marine environment ***In Preparation*** • Royal Decree on the Management of Fishing Gear Containing Plastic • Royal Decree on the Management of Waste from Single Use Wipes and Single Use Balloons Containing Plastic
Thailand	• Enhancement and Conservation of National Environment Quality Act,B.E.2535 (1992) • Public Health Act, B.E.2535 (1992) • Energy Development and Promotion, B.E.2535 (1992) • Navigation in Thai Waters Act B.E. 2456 (1913) and its amendment ***In Preparation*** • (Draft) Packaging Act

2.3. Indicators and/or Targets

Indicators and targets are essential policy tools for tracking progress, identifying pollution sources, inducing change in the behaviour of social actors and material flows, and evaluating the effectiveness of mitigation strategies. The survey inquired about indicators and targets utilized/set by participating countries to inform policy making and promote measures on plastic and MPL. The details and overall trend of reported indicators and targets are summarized in Table 3 and Figure 2, respectively.

Countries employ diverse indicators to assess the flow of plastics, plastic products, plastic waste in the economy, plastics leaked into the environment, as well as to understand the behaviours of social actors in relation to plastics/MPL policies implemented. These indicators encompass both quantitative metrics (such as recycling rates, leakage ratios, and the abundance of litter) and qualitative targets tied to policy frameworks and sustainability strategies, reflecting national priorities while meeting the reporting needs and requirements for international cooperation. It is noteworthy that many countries are aligning their indicators with global commitments and reporting mechanisms, including the Sustainable Development Goals (SDGs), the Osaka Blue Ocean Vision, and international legal instruments such as OSPAR and MSFD. Nearly all countries reported employing at least one indicator or target; however, the range of indicators/targets monitored extensively differs among countries.

- Australia tracks plastic flows and recycling rates through its annual Plastic Flows and Fates report and sets national packaging targets to drive systemic change.
- Canada has developed granular indicators that cover plastic production, recycling, leakage rates, and ghost gear retrieval, alongside targets for the plastic content in consumer products and packaging.
- The European Union has mandated targets for the collection and recycling of plastic bottles and fishing gear, and has established a beach litter threshold of 20 items per 100 meters of coastline. The EU and OSPAR contracting parties also have a long-term threshold value for plastic particles in fulmar stomachs in which members aim for at least 5 consecutive years, the proportion of fulmars with more than 0.1 gram of plastic in the stomach (FTV%) remains under 10%.
- France and Germany monitor plastic particles in fulmar stomachs as part of their OSPAR commitments and have set ambitious targets for reducing single-use plastics and improving packaging recyclability.
- Japan employs a multi-tiered framework that encompasses indicators for plastic waste generation, marine litter collection, and the adoption of alternative materials, with clear targets for reuse, recycling, and the introduction of bio-based plastics.
- Italy, Norway, and the Netherlands have adopted packaging waste recovery targets and beach litter thresholds, while also aligning with EU directives on recycled content and extended producer responsibility.
- Türkiye and Mexico are developing indicators for ghost gear recovery and microplastic monitoring, with Türkiye integrating MPL parameters into its National Marine Monitoring Program.
- The United Kingdom has set interim targets for reducing residual municipal plastic waste and participates in OSPAR's regional goals for reducing beach litter and single-use plastic.

Table 3: List of indicators and targets reported by countries

Country	Indicators and Targets
G20 Members	
Australia	• Data collection framework: The annual Australian Plastic Flows and Fates reporting shows Australia's plastic consumption, flow, recovery and recycling from 2000 to 2021 • The National Packaging Targets have driven systemic change to how packaging is designed, collected, recovered and reprocessed and are increasing recovery rates. • The Australian Government is taking a range of actions on waste and recycling that will support industry to deliver the Targets. • The Government supports the Australasian Recycling Label (ARL) as a world-leading educational tool to help households recycle correctly, including by investing $5 million • Packaging regulatory reform provides an opportunity to address particularly challenging packaging types, such as soft plastics, through improved collection and recycling and product stewardship approaches. • NWPAP Target 5: Continued phase out of problematic and unnecessary plastics • The Australian Marine Debris Initiative (AMDI) provides high-quality data that is crucial for informing both national and global plastic pollution policies.
Canada	• Data collection on identity, source and weight in kilograms of plastics chemically or mechanically recycled in the product categories packaging, single use and disposable products, electronic and electrical equipment, agriculture and horticulture and tires • Data collection on: identity, source and weight in kilogram of resins and plastic products placed on the market, imported and manufactured in Canada and destined for residential; industrial, commercial and institutional; and construction, renovation and demolition waste streams; identity, source and weight in kilogram of plastic products generated as waste in industrial, commercial and institutional premises; identity, source and weight in kilogram of plastic products managed for diversion and disposal • Proportion of discarded plastic leaked permanently into the environment (Plastic leaked permanently into the environment / Total discarded plastic in products) • Percentage of wild capture commercial fisheries whose licences are revised for ALDFG ("ghost gear") best practices based on gear type. 20% of wild capture commercial fisheries with revised licences by March 2026 • Number of commercial fisheries in which in-season ghost gear retrieval and alternatives to plastic gear tags are piloted. 3 commercial fisheries for each by March 2025 (Target achieved). • The proportion of Northern Fulmars (bird species) with 0.1 grams or more of plastic in their stomachs. • The Ocean Plastics Charter, championed by Canada during its 2018 G7 presidency, includes actions across the plastics lifecycle to reduce plastic waste and pollution. ◦ Working with industry toward 100% reusable, recyclable, or where viable alternatives do not exist, recoverable plastics by 2030; ◦ Working with industry toward increasing recycled content by at least 50% in plastic products where applicable by 2030; ◦ Working with industry and other levels of government to recycle and reuse at least 55% of plastic packaging by 2030 and recover 100% of all plastics by 2040; and ◦ Working with industry toward reducing the use of plastic microbeads in rinse-off cosmetic and personal-care consumer products, to the extent possible by 2020 and addressing other sources of microplastics. • In alignment with the Ocean Plastics Charter and to support the Canada-wide Strategy on Zero Plastic Waste, Phases 1 and 2 of the Canada-wide Action Plan on Zero Plastic • To facilitate data collection and analysis needed to support advancing a circular plastics economy, Statistics Canada maintains a Physical Flow Account for Plastic Material (PFAPM). • Environment and Climate Change Canada's new Federal Plastics Registry will also require companies to report annually on the quantity and types of plastic they manufacture, import and place on the Canadian market and how it is managed at its end-of-life.

Country	Indicators and Targets
Canada	• In an effort to lead by example, the Government of Canada's Federal Sustainable Development Strategy (FSDS) and Greening Government Strategy also commit to diverting at least 75% by weight of plastic waste from landfills by 2030, eliminate the unnecessary use of plastics, in particular single-use plastics, in government operations, events and meetings and promote the procurement of goods and services that include criteria that address environmental considerations such as greenhouse gas emissions reduction, plastics waste reduction and/or broader environmental benefits by 2050, to aid the transition to circular plastics economy. • Through the Canadian Environmental Sustainability Indicators (CESI) program, Canada has established the Plastic particles in the Northern Fulmar indicator. • Beyond plastic waste, federal, provincial and territorial governments, through the Canadian Council of Ministers of the Environment (CCME), have endorsed a Canada-wide waste reduction goal (for all waste, including plastics): reduce per capita waste (measured in 2014 at 699 kg) by 30% by 2030 and by 50% by 2040. The CESI Solid waste diversion and disposal indicator supports the measurement of progress towards this goal. • Canada has also endorsed relevant international commitments, including the goals and targets of the Kunming-Montreal Global Biodiversity Framework, the United Nations Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development. This includes Target 11.6 (reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management by 2030), Target 12.5 (substantially reduce waste generation through prevention, reduction, recycling and reuse by 2030) and Target 14.1 (prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution, by 2025). The Osaka Blue Ocean Vision also aims to reduce additional marine plastic pollution to zero by 2050. • Canada, through the Canadian Indicator Framework (CIF), reports on 76 nationally relevant indicators that include Canadian ambitions and targets to measure progress on the SDGs. The CIF indicators relevant to plastics and waste include; ◦ Indicator 11.6.1 - Total waste disposal per capita, ◦ Indicator 12.3.1 - Total waste diversion per capita, ◦ Indicator 12.4.1 - Proportion of discarded plastic leaked permanently into the environment (uses PFAPM data).
China	Plastic recycling: • By 2022, the proportion of resourceful energy utilization of plastic waste will be substantially increased. • By 2025, management systems for the production, circulation, consumption and recycling and disposal of plastic products will have been basically established, and the efficiency of plastic waste collection and transfer will have been greatly improved; the recovery rate of agricultural films will reach 85%. Plastic use reduction: • By 2020, take the lead in banning and restricting the production, sale and use of some plastic products in some areas and some fields; ban the production and sale of disposable foamed plastic tableware and disposable plastic swabs; and ban the production of daily chemical products containing plastic microbeads. • By 2022, the consumption of disposable plastic products will be significantly reduced; the sale of daily chemical products containing plastic microbeads shall be prohibited; and a number of replicable and scalable models of plastic reduction and green logistics will be formed in areas with prominent plastic pollution problems and in emerging areas such as e-commerce, express delivery and takeaway. • By 2025, the intensity of consumption of non-biodegradable disposable plastic tableware in the catering takeaway sector in cities at the prefecture level or above will be reduced by 30%, and all hotels and guest houses nationwide will no longer actively provide disposable plastic products. Plastic Alternatives: • By 2022, alternative products will be promoted; the use of non-biodegradable plastic bags will be banned in shopping malls, supermarkets and other places in the built-up areas of cities at or above the prefecture level and in the built-up areas of counties in

Country	Indicators and Targets
China	coastal areas, and the use of non-biodegradable plastic bags will be regulated and restricted in the marketplaces; the use of non-degradable disposable plastic tableware is prohibited in catering and dine-in services in the built-up areas of counties and scenic spots. • By the end of 2025, the use of non-biodegradable plastic bags will be prohibited in the marketplaces of the above areas; the intensity of consumption of non-degradable disposable plastic tableware in the in the field of food and beverage takeaway in cities at or above the prefecture level will be reduced by 30%; the use of non-biodegradable plastic bags, plastic tapes, disposable plastic woven bags, etc., will be prohibited in postal express outlets nationwide, basic e-commerce express shipments will be no longer packaged twice, and the scale of application of recyclable express packaging will reach 10 million units. Plastic Leakage: • By 2025, the incineration treatment capacity of urban domestic waste nationwide will reach about 800,000 ton/day, the amount of plastic waste directly landfilled will be significantly reduced, and plastic pollution will be effectively controlled; the amount of ground film residue nationwide will achieve zero growth. The historical open-air plastic waste in key water areas, key tourist attractions and rural areas will be basically cleared. The leakage of plastic waste into the natural environment will be effectively controlled. Urge ships to collect, transfer and dispose of ship waste, including plastic waste, in strict accordance with relevant laws and regulations. Beach Cleanup: • *Action Plan for Marine Litter Cleanup in Coastal Cities (2024–2027)* promote coastal cities and counties to establish a long-term mechanism for cleaning up marine plastic litter, and keep key coastal areas free of obvious plastic waste. Since 2024, 65 bays adjacent to the built-up areas of cities and towns along the coast of the country will continue to carry out dragnet marine litter clean-up operations. By the end of 2027, the density of marine litter in the 65 bays will have decreased significantly, reaching clean levels on a regular basis. The long-term mechanism for the comprehensive management of marine litter will be basically established including 'on-shore management, watershed interception and sea surface cleaning. Ghost Gear recovery: • Regulate the recycling and disposal of used fishing nets and gear.
The EU	• 77% separate collection target for single-use plastic bottles by 2025 – increasing to 90% by 2029 & incorporating 25% of recycled plastic in PET beverage bottles from 2025 and 30% in all plastic beverage bottles from 2030. As of 1st January 2025, EU Member States shall set up national annual collection targets for waste fishing gear for recycling. • The Packaging and Packaging Waste Regulation (PPWR) introduced minimum recycled content in plastic packaging. By 2030, plastic packaging must contain a minimum of 10% to 35% recycled content, depending on the type of plastic and its application. By 2040, these targets increase to 25% to 65%. Moreover, it mandates that all packaging be recyclable by 2030. • The Packaging and Packaging Waste Regulation contains targets requiring Member States to reduce packaging waste by 5% by 2030, with reference to the year 2018 as the base year; the targets gradually increase, reaching 15% by 2040. • A target threshold value for beach litter (i.e. 20 litter items/100 m of coastline), has been established in 2020 (see the JRC Technical Report on A European Threshold Value and Assessment Method for Macro Litter on Coastlines), which is estimated to reduce harm from beach litter to a sufficiently precautionary level. • Under the SUPD, from 31 December 2024, extended producer responsibility applies for fishing gear. EU Member States are requested to set national targets for collection rates of waste fishing gear containing plastic for recycling and to report annually how many tonnes of different categories of new gear components have reached the market and how many tonnes of waste gear have been collected. • In the PPWR, Member States shall incentivize restaurants to serve their customers tap water, where available, free of charge.

Country	Indicators and Targets
France	• Proportion of recycled plastic - 100% recycled plastic by 2025 • Proportion of reduction for 20% reduction target for single-use plastic packaging by 31 December 2025, considering that at least 50% of this target must be achieved through the reuse of packaging • EU - number of litter items for 100 meters of beaches (A threshold has been defined at the EU level and it sets a target for good environmental status of a maximum of 20 litter items for 100 meters of beaches) • OSPAR - plastic particles present in fulmar stomachs (OSPAR targets that less than 10% of fulmars should not have more than 0.1g of plastic in their stomachs. • OSPAR contracting parties set the aim to reduce single-use plastics (SUP) and marine related items on beaches by 75% by 2030s • The French Ministry of ecological transition is developing a national charter "Plastic waste-free beaches for eco-exemplary coastal communities". • Examples of targets for the legislation against waste and for circular economy: (i) 5% of reused packaging by 2023; (ii) 10% of reused packaging by 2027; (iii) 50% less single use plastic bottles by 2030; (iv) 100% recycled plastic by 2025; (v) 20% reduction target for single-use plastic packaging (expressed as tonnages of incorporated plastic / reference year 2018) by 31st December 2025, taking into account that at least 50% of this target must be achieved through the reuse of packaging; (vii) 77% of plastic bottles collected by 2025.
Germany	• Recycling quota for packaging subject to mandatory PRO participation (packaging that typically accumulates as waste at private end consumers) are regulated by the packaging Act, including recycling quota of plastic packaging. Packaging Act requires 63 % (input quota) mechanical recycling of plastic packaging • Data for plastic use reduction for certain single-use plastic products is part of regular reporting in accordance with the Single-Use-Plastic-Directive (SUPD) and is regulated by the environmental statistics act. The reduction in consumption can be measured on the basis of the weight of the plastic content of the single-use plastic items placed on the market or on the basis of the number of items. The target is to achieve a measurable quantitative reduction in the consumption of certain single-use plastic products on the territory of the Member State by 2026 compared to 2022. • Data is available from regular official beach litter monitoring and partly from the NGOs and public authorities carrying out clean ups on beaches and in other public spaces. The indicator is defined in terms of median litter abundance per 100 m beach for comparison with the threshold value of less than 20 litter items per 100 m beach. • Fishing for Litter data is regularly reported to OSPAR covering passively fished waste during fishing operations. To increase the total number of vessels participating in FFL schemes in the OSPAR maritime area by 100% in 2021, compared to the baseline situation in 2017. • Plastic particles in the stomachs of Northern Fulmars. OSPAR long-term target that fewer than 10% of fulmars should have no more than 0.1g of plastic in their stomachs.
Italy	• Packaging waste - By 31 December, 2025: 65% by weight relative to all packaging waste; 50% for plastics, 25% for wood, 70% for ferrous metals, 50% for aluminum, 70% for glass, 75% for paper and cardboard • Packaging waste - By 31 December, 2030: 70% by weight relative to all packaging waste; 55% for plastics, 30% for wood, 80% for ferrous metals, 60% for aluminum, 75% for glass, 85% for paper and cardboard • Definitions of Environmental Targets pursuant Ministerial Decree of 15 February, 2019, according to the implementation of the Directive 2008/56/EC • The minimum annual national collection rate of plastic-containing fishing gear waste for recycling is set at 15% by weight of the plastic-containing fishing gear placed on the national market during the respective reference years for the biennium 2024 and 2025 • Extended producer responsibility schemes shall ensure separate collection for recycling and compliance with minimum percentages of use of recycled plastic: ◦ by 2025, of a quantity of waste single-use plastic products listed in Part F of the Annex equal to 77 % by weight of such single-use plastic products placed on the market in the reference year;

Country	Indicators and Targets
Italy	◦ by 2029, of a quantity of waste single-use plastic products listed in Part F of the Annex equal to 90 % by weight of such single-use plastic products placed on the market in the reference year
Japan	• National Action Plan for Marine Plastic Litter" includes five indicators for monitoring progress: (a) Amount of plastic waste generated, recycled, heat recovered, incinerated without energy recovery and landfilled. (b) Amount of land-based litter collected, illegal dumping and scattered waste. (c) Amount of marine litter collected by clean-up activities. (d) Production capacity and amount of consumption of alternative materials such as marine degradable plastics and paper. (e) Increment of plastic waste generated, recycled, heat recovered, incinerated without energy recovery and landfilled, as a result of international cooperation • Indicators and Targets under Resource Circulation Strategy for Plastics (2019): (a) Cumulative suppression of 25% of single-use plastics by 2030. (b) Reusable/recyclable design by 2025. (c) Reuse/recycle60%of containers and packaging by 2030. (d) Effective use of 100% of used plastics by reuse and recycling etc. by 2035. (e) Double the use of recycled content by 2030. (f) Introduce about 2 million tonnes of bio-based plastics by 2030 • Indicators and Targets under the 5th Fundamental Plan on Establishing a Sound Material-Cycle Society: Status of resource recycling throughout the life cycle of each material, etc. by 2030 (a) Circulation utilization rate(input) – approximately 19%. (b) Circulation utilization rate(output) – approximately 44%. (c) Amount of final waste disposal – approximately 11 million tonnes/year. (d) Amount of bio-based plastics introduced – approximately 2 million tonnes
Mexico	***In Preparation*** • There is the design of a National Strategy for the Prevention and Recovery of Ghost Fishing Gear and in the mid-term, implement the strategy in 50% of the marine and coastal areas of the country, with emphasis on Region I (Northwest Pacific) and Region II (Gulf of California). • National Commission of Aquaculture and Fisheries (CONAPESCA) is developing a project for recycling ghost and illegal fishing nets in collaboration with Ola Mexico (Inplarsa). • Monitoring data informs updates to local waste regulations, prioritization of hotspots for clean-up and allocation of resources for infrastructure upgrades. Data is also shared with academic institutions and supports reporting under SDG 14.1.1.
The Republic of Korea	• Increased recycling of marine debris - To increase marine debris recycling rate from 10% (12,000 tons) of collected debris (120,000 tons) (as of 2021) to over 20% (24,000 tons) by 2027 • Replacement of existing plastic fishing gear with biodegradable alternatives (gillnets and traps) - Annual budget execution for the supply of biodegradable fishing gear. • The amount and type of marine debris collected by the National Marine Debris Monitoring Program. - Measuring the amount and types of reduced plastic • Investigation and project to manage ghost fisheries in progress from 2023 by the Korea Fisheries Infrastructure Public Agency - Research on the current status, economic impact, and duration of ghost fishing, among other related topics.
South Africa	• In South Africa, the majority of plastic waste still ends up in landfills • Recycling is a key element of circulating plastic material in the economy. However, while all plastics are technically recyclable, not all plastics are currently recycled in practice in South Africa • The end-use market demand for recycled material is still one of the limiting factors for growth of the plastic recycling sector in South Africa. This is largely linked to the competitive price of virgin plastic • There is beach clean-ups taking place on days such as the International Day of Coastal Clean Ups. There are many beach clean-ups across the country hosted by NGOs and members of the public.

Country	Indicators and Targets
Türkiye	• With the application of charging for plastic bags, the formation of 2,053,992 tons of plastic waste originating from plastic bags was prevented between 2019 and 2024. • In order to prevent plastic pollution caused by fishing, Ministry of Agriculture and Forestry has been carrying out the cleaning activities of abandoned or lost fishing gear from the sea and inland waters with the "Ghost Net Project" since 2014. At a total of 453 million, square meter of area was scanned, 2.6 million square meter net and 65.000 other fishing gear were removed. • Microplastics (in sediment, water column, surface water), floating litter (surface water), seafloor litter (macro litter), digested litter (microplastics in biota), beach litter indicators • Microplastic monitoring in waste water treatment plants (as a pilot and research and development component • National Marine Monitoring Programme involves monitoring activities related to the marine litter component are below: ◦ to implement marine litter monitoring indicators/parameters in National Marine Monitoring Programme of Türkiye according to Regional Marine Conventions, MSFD and national legislation ◦ to meet the requirements of Regional Marine Conventions (and their monitoring programmes) and national legislation ◦ to achieve continuous, consistent and valid data on marine litter, ◦ to form the basis for management strategies with scientific data and evaluations ◦ as a long-term goal to establish national baseline and threshold values at national level
The UK	• Environmental Improvement Plan (EIP 2023) interim target to ensure that by 31 January 2028, the total mass of residual municipal plastic waste in the most recent full calendar year does not exceed 42kg per head of population in England • The UK Marine Strategy Part One (HM Government, 2012) sets out the following aim, in 2012: "the amount of litter on coastlines and in the marine environment is reducing over time and levels do not pose a significant risk to the coastal and marine environment, either as a result of direct mortality such as through entanglement, or by way of indirect impacts such as reduced fecundity or bioaccumulation of contaminants within food chains" • Under the North East Atlantic Environment Strategy, OSPAR committed to reduce the prevalence of the most commonly found single-use plastic and maritime-related plastic items on beaches by 50% by 2025 and 75% by 2030
Invited / Other Countries	
Mauritius	• Out of 75,000 tonnes of plastic waste generated annually and directed to the waste stream, only about 4% are collected for recycling. • In year 2024, about 158 million beverage PET bottles were generated and only 35 % were collected for recycling. • The banning of single use plastic products and plastic bags has resulted in the following avoidance in the waste stream: About 200 million single use products avoided in the waste stream; and About 400 million plastic bags avoided in the waste stream. • Alternatives to single use plastic products imported or manufactured composed mainly of cellulose based material and PLA based material. • Alternative to plastic carry bags are biodegradable / compostable plastic bags made up of Polybutylene Adipate Terephtalate(PBaT) and PLA.
Myanmar	• Establishing systematic locations for Material Recovery Facilities (MRFs) to collect reusable materials from waste in urban municipalities and rural areas, as well as designated sites for proper landfilling. • Implementing a system starting from major cities (Yangon, Mandalay, Nay Pyi Taw) in which plastic bottle manufacturing companies adopt a return scheme that allows consumers to return recyclable types of plastic bottles and receive a refund or financial incentive.

Country	Indicators and Targets
Myanmar	• A sufficient fund can be established and utilized to cover the costs of collecting and managing non-recyclable plastic waste. • By segregating plastic waste at the source, each sector can more effectively manage and recover recyclable materials, while organic waste can be properly directed to designated landfill sites for final disposal. • Restricting specific types of SUPs based on their applications and relevant sectors Implementing a fee system for SUP usage, with charges paid by consumers depending on location and sector • Conducting regulatory inspections to ensure that plastic-related industries are appropriately licensed in accordance with SUP usage restrictions. • Avoiding the use of unnecessary plastic materials can help reduce waste generation and promote the use of alternative materials. • By informing consumers that plastic packaging bags are not provided for free at markets and food shops, they can be encouraged to bring and use alternative bags.
Norway	• About 28% of all the plastic packaging put on the market was recycled in 2020. In line with Norwegian Waste Regulations, 47% of all plastic packaging put on the market must be recycled by 2025 and 52% by 2030 • The targets for separate collection of plastic waste from households; is 50% from 2028, 60% from 2030 and 70 % from 2035. There will not be any data available on this target until 2028. We aim to achieve that all packaging (100%) is recyclable by 2030 • 92 % of plastic bottles put on the market were returned in the deposit return sytem for single-use beverage packaging. 77% of PET bottles shall be separately collected by 2025 (already achieved) • Baseline of 55% average content of recycled plastic in plastic beverage bottles (mainly PET) in 2023. We aim to achieve at least 25 % recycled plastic on average in beverage PET bottles meeting certain criteria from 2025 and at least 30 % recycled plastic on average in all beverage bottles meeting certain criteria from 2030 (already achieved) • Achieve a minimum percentage of recycled content recovered from post-consumer plastic waste ranging from 10 to 35 % in any plastic part of packaging placed on the market by 1 January 2030 or later depending on the implementing act and a minimum percentage of recycled content recovered from post-consumer plastic waste ranging from 25 to 65 % in any plastic part of packaging placed on the market by 1 January 2040 • In line with EU targets, 55% of municipal waste and 65% of packaging waste must be prepared for re-use or recycled by 2025 • 60% of all building waste was prepared for reuse or recycled in 2022. Target to prepare for reuse or recycle 70 % of building and construction waste by 2020 was not achieved • Reduce the amount of plastic carrier bags to an equivalent of 40 plastic carrier bags per person per annum in 2025 • Reduce the use of plastic take-away food containers and beverage cups incl. lids to 50% by 2026 compared to 2022 • Ban of certain single-use plastic products that has been in place since 2021 is estimated to reduce SUP use with around 6% or 3600 tonnes/year (1.9 billion SUP items/year) • Do not have specific separate national-only indicators that are targeting MPL. As part of the OSPAR commission, Norway monitors beach litter, seabed litter and plastic particles in fulmar stomachs as common indicators for the OSPAR Maritime Area in the North-East Atlantic. Since 2021, Norway has also started monitoring microplastics, following the indicators recommended in GESAMP guidelines and the work programme AMAP under the Arctic Council.
The Netherlands	• In 2023, of all plastic packaging put on the Dutch market, 49% was recycled. 74% of plastic drink bottles were collected • 50% recycling or reuse of plastic packaging waste, collection target of 90% for plastic drink bottles • 40% reduction in the use of single use plastic cups and food containers in 2026, compared to 2022 levels (national goal to implement EU SUP Directive) • Amount of beach litter on Dutch North Sea coast - 20 items per 100m beach

Country	Indicators and Targets
The Netherlands	• The regional sea convention for the North-East Atlantic, OSPAR, has developed several common indicators to monitor marine litter: In addition, the Netherlands has cooperated in the development of the updated EU monitoring guidelines and EU beach litter assessments (see website MSFD Technical Group on Marine Litter: MSFD Technical Group on Marine Litter ◦ Litter in environment: beach - Abundance, Composition and Trends of Beach Litter with Target: 20 items per 100 m ◦ Litter in environment – seafloor, Composition and Spatial Distribution of Litter on the Seafloor with Target: under development ◦ Litter in environment: water column - Plastic Particles in Fulmar Stomachs in the North Sea with Target: less than 10% of fulmars exceeding a level of 0,1 gram of plastic in their stomachs ◦ Micro-litter in the environment – Indicator under development with Monitoring of meso plastics and pellets has started
New Zealand	N/A
Peru	• Plastic Recycling: ◦ Percentage (%) of recovered PET/Polyethylene terephthalate compared to plastic generation ◦ Percentage (%) of HDPE/high-density polyethylene recovered with respect to plastic generation
The Philippines	• Beach clean-up ◦ Annually–International Coastal Clean Up • Plastic product footprint ◦ 2023 (20%); 2024 (40%); 2025 (50%); 2026 (60%); 2027 (70%); 2028 (80%)
Singapore	• Beach clean-up ◦ Yearly Flotsam Data
Spain	• Ghost Fishing Gear recovery • Beach litter; Seafloor litter • Floating litter; Microplastics on beaches • Microplastics on beaches • Microplastics on the water surface • Microplastics on sediments • Citizen Science • Marine Litter in biota (ingestion and entanglement on marine turtles)
Thailand	• The Marine Department has a system that only collects data about the volume of all waste from ships, but not specifically about plastic waste.

Figure 2 provides a snapshot of how different aspects of plastic pollution are being addressed through indicators (blue bars) and targets (orange bars), revealing both policy priorities and monitoring gaps across countries. A wider variety of indicators and targets is reported this year than in the past, while previously reported items, such as those related to policy implementation (i.e., deposit return schemes, research knowledge, and municipal initiatives and actions), were less frequently reported.

Overall, there is a tendency for targets to be well set for monitoring plastic flows in the economy, such as the amount of plastics consumed, reused, and recycled. More countries are adopting targets that address upstream stages of the plastic value chain, such as product design, the use of alternative materials, and the use of recycled plastics in new products, including minimum recycled content

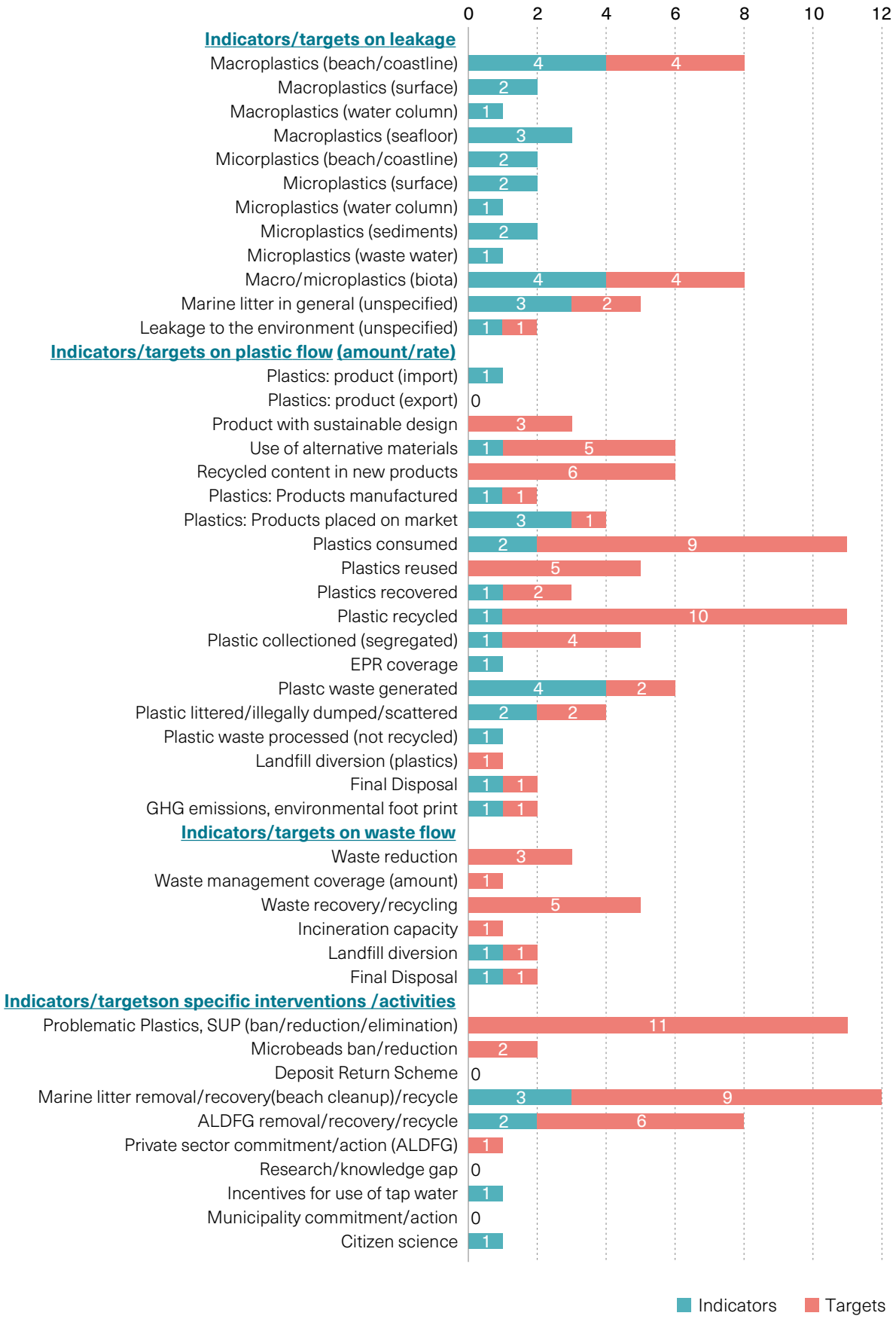


Figure 2: **Typology of indicators and targets adopted in countries**

targets. Targets for the reduction/phase-out of single-use plastics and other problematic plastics, as well as the removal, recovery, and recycling of marine litter and ALDFG, are also prevalent.

The leakage of plastics into the environment, including both macro- and microplastics, is monitored at diverse locations, such as beaches, the ocean surface, the water column, the seafloor, sediments, wastewater, and biota (in most cases, the stomach content of fulmars), often supported by national marine monitoring programs (e.g., Japan and Türkiye). Target-setting is less in this area, except for macro-plastics on the beach and those based on bio-indicators, which many respondents referred to the standard reporting frameworks under the EU and OSPAR Convention.

Given the transboundary nature of MPL issues, harmonizing indicators and their associated methodologies, as well as the reporting framework, is crucial for enhancing data reliability and comparability, improving accountability and transparency through monitoring and reporting processes, and facilitating data sharing and cooperation at the international level. Such alignment supports global initiatives and allows countries to track progress towards shared goals, including reduction targets.

Countries also reported on the challenges in data collection (both waste and MPL) as detailed in Annex II. Considering that monitoring of targets requires continuous and reliable policy-relevant data, the development of sound data management systems is also an instrument to support both national accountability and global reporting, as well as to promote evidence-based policymaking.

2.4. Technical standards, guidelines, methodologies

Technical standards, guidelines, and methodologies are indispensable policy instruments that can translate plastics-related policies into practice at each stage of the entire plastics lifecycle, ensuring that plastics, plastic products, and plastic-containing products are designed, produced, used, disposed of, and their impacts assessed consistently.

For instance, technical standards outline rules and requirements for materials, products, processes, or services to ensure that environmental considerations are taken into account. Guidelines present a set of recommended practices or instructions designed to guide decision-making and behaviour of value chain stakeholders. Methodologies can assist informed decision-making by providing frameworks to identify problems, gather insights, and evaluate potential solutions. These instruments can, some as soft laws while others as hard laws, complement existing plastic legislations and enhance implementation towards intended policy goals.

A summary of the reported instruments is presented in Figure 3, which shows that a majority of participating countries (15 in total) have developed or are in the process of creating at least one, and in most cases, multiple instruments. A few countries responded that they do not have such instruments, or did not respond at all.

The reported instruments spanned various topics and stages of the plastics value chain, with their scope varying widely, and were categorized as illustrated in Figure 4. Ten countries reported on tools related to production and manufacturing, seven countries did so on waste management and recycling, and six countries reported on leakage monitoring. Emerging areas, such as single-use plastic (SUP) management, plastic pellet loss prevention, and end-of-life recreational vessel management, were also reported but not widely adopted, potentially suggesting room for future action.

In upstream, for instance, the UK's British Standards Institution published *Publicly Available Specification (PAS 510:2021),* which sets out requirements for the handling and management of plastic

pellets, flakes, and powders throughout the plastics value chain to prevent leakage to the environment. Canada issued a notice regarding the reporting of plastic resins and certain plastic products for its Federal Plastics Registry for the years 2024–2026. Japan developed a *Guideline for the Design of Plastics-containing Products*. At the same time, the EU set out circular design requirements for a wide range of products under its *Ecodesign for Sustainable Products Regulation*.

In the downstream, Germany's recyclability standards for packaging can promote system-wide circularity. France issued *the Guideline on the Fight against Illegal Waste Dumping and Abandonment* in 2020 to guide local authorities. In the Philippines, the *LGU SWM Self Compliance Monitoring and Auditing Report (SCMAR)* functions as a mandatory assessment and reporting tool for local governments to enhance compliance with the relevant environmental laws and include information such as waste diversion rate and collection efficiency. In some cases, instruments are intended to support subnational governments and entities.

Many instruments were reported for leakage monitoring. Italy's ISPRA utilizes methodological sheets in the monitoring activities conducted under *the Marine Strategy Framework Directive*. Myanmar uses the Clean Cities, Blue Ocean (CCBO) Program's *Marine Litter Audit Guidebook* to monitor and assess MPL along its beaches. In Türkiye, *the Monitoring Guidelines on Marine Litter* were published in 2019 by the Ministry of Environment, Urbanization, and Climate Change, which is expected to be updated by the end of 2025 through a standardization project. The EU's updated harmonized monitoring guidelines and France's OSPAR beach litter protocols offer structured approaches to marine litter assessment. Japan has introduced a comprehensive suite of guidelines, including methodologies for monitoring river microplastics and remote sensing-based tracking of marine litter.

Harmonisation of indicators and measurement methodologies is critical for monitoring MPL, to produce reliable and comparable data across regions and over time, and gain a comprehensive understanding

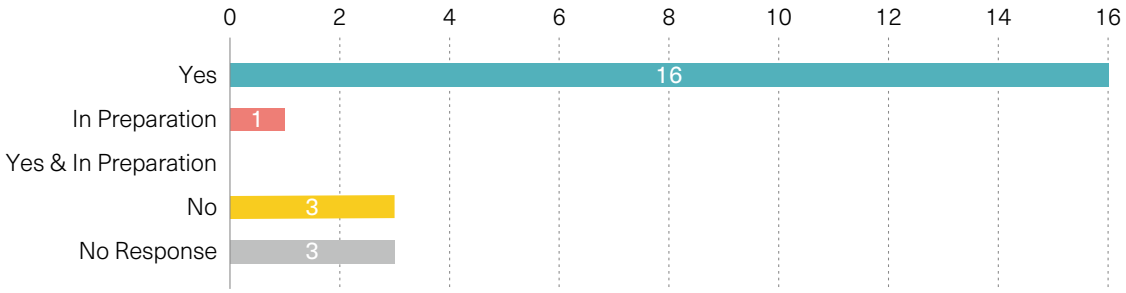


Figure 3: Availability of technical standards, guidelines, and methodologies in countries

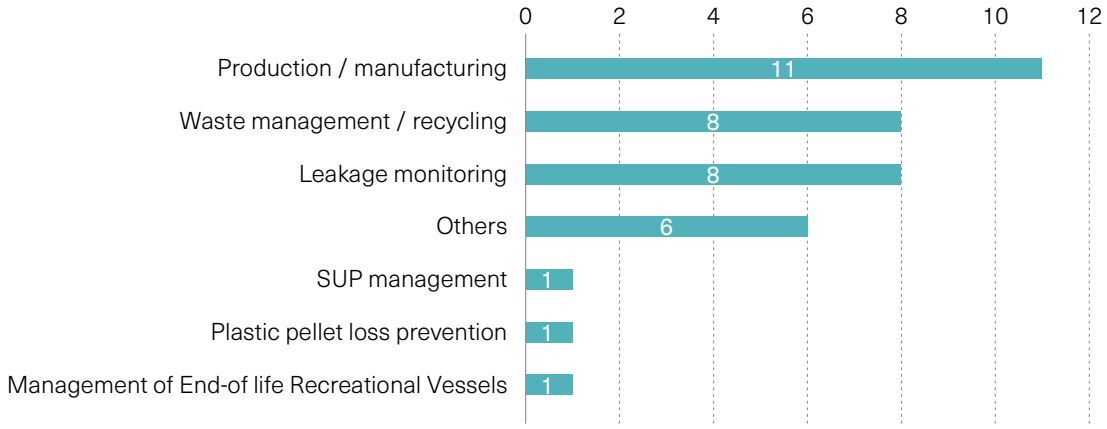


Figure 4: Reported instruments by thematic categories

of plastic flows within the economy and the environment. This can also facilitate the aggregation of data at the global level and can enhance international cooperation in addressing MPL pollution.

As also described in the Chapter on countries' perception of challenges, countries are increasingly aware of the issue, while several efforts promoting heroization were also reported: Türkiye's ongoing revision of its marine monitoring guidelines aims to align national practices with emerging global indicators, while Norway's *Nordic Council initiative* is preparing harmonized plastic statistics across production, trade, and waste management. The EU's monitoring and data collection are implemented based on a joint list of litter categories and harmonized monitoring guidelines updated in 2023. Japan issued two guidelines on monitoring methodologies (utilization of remote sensing technologies and ocean surface microplastics monitoring) to contribute to harmonisation at the global level.

National institutions, including responsible ministries and standard organisations, published some of these instruments. In contrast, others were developed by industry associations (e.g., guidelines for the management of packaging waste developed by consortia in Italy) and non-governmental organisations (e.g., a guidebook developed by CCBO, which is utilised in Myanmar).

A detailed list of reported instruments is presented in Table 4, spanning the entire plastics lifecycle, which includes those targeting upstream, such as product design guidelines, mid-stream - packaging recyclability criteria, downstream - protocols for waste management and recycling traceability, and environmental monitoring tools for beach, river, and ocean litter surveys. Collectively, these instruments induce behavioural change of value chain actors at scale and form the backbone of evidence-based policymaking, enabling countries to track progress, refine interventions, and strengthen their contributions to global efforts against marine plastic pollution.

Table 4: List of technical standards, guidelines, and methodologies

Country	Technical standards, guidelines, and methodologies shared by countries
G20 Members	
Australia	N/A
Canada	• Notice with respect to reporting of plastic resins and certain plastic products for the Federal Plastics Registry for 2024, 2025, and 2026
China	• Technical specification for pollution control of plastic waste • Guidelines for Monitoring and Evaluation of Marine Litter (Trial), 2024 • Technical Specification for Monitoring Marine Microplastics (Trial), 2023
The EU	• A Joint list of litter categories has been developed, so that collected data are recorded in a harmonised way. • The harmonized EU monitoring guidelines were updated in 2023
France	• OSPAR guidelines on beach litter monitoring ("Guideline for Monitoring Marine Litter on the Beaches in the OSPAR Maritime Area") • As part of the National Roadmap against Marine Litter "0 plastic reaching the sea 2019–2025", a "guideline on the fight against illegal waste dumping and abandonment" was published in 2020, aimed primarily at local authorities. • EU guidelines on the monitoring of marine litter in European Seas (JRC Technical Report 2023)
Germany	• Minimum standard for determining the recyclability of packaging subject to mandatory PRO participation pursuant to section 21 (3) VerpackG, annually updated standard published by Central Agency Packaging Register (Zentrale Stelle Verpackungsregister – ZSVR), in agreement with the German Environment Agency (Umweltbundesamt – UBA)

Country	Technical standards, guidelines, and methodologies shared by countries
Germany	• Monitoring handbook of the current German Bund/Länder monitoring programmes (BLMP) • Guidance on Monitoring of Marine Litter in European Seas (MSFD TG ML, JRC Scientific and Policy Reports)
Italy	• Technical Standards: UNI EN 13432: Requirements for packaging recoverable through composting and biodegradation; UNI EN ISO 15270: Guidelines for the recovery and recycling of plastic waste; UNI EN 15343: Plastics recycling – traceability and assessment of conformity and recycled content • CONAI (National Packaging Consortium) and COREPLA (National Consortium for the Collection, Recycling and Recovery of Plastic Packaging) provide guidelines for the management of packaging waste • ISPRA (Italian Institute for Environmental Protection and Research): SNPA, 2024. Methodological sheets used in the monitoring programmes of the second cycle of the Marine Strategy Framework Directive (Ministerial Decree of 2 February 2021)" • "ISPRA, 2024. Floating Macro-Litter in Rivers: ISPRA's National Monitoring Programme for the Marine Strategy. ISPRA Papers – Marine Research 19/2024, Rome."
Japan	• Guideline for Design of Plastics-containing Products • Ministerial Ordinance to Provide for Standards of Judgement concerning Reduction of Discharge of Plastic Waste from Specified Plastic Products through Rationalization of Use of Specified Plastic Products by Business Operators Providing Specified Plastic Products • Guidance for Application for Accreditation of Voluntary Collection and Recycling Business Plan by Manufacturers/Distributors, etc. under the Law Concerning the Promotion of Resource Recycling of Plastics • Street Litter Survey Guidelines • Collection of Reference Materials for River Litter Survey • Guidelines for River Microplastic Monitoring Methods • Beach Litter Composition Survey Guidelines • Guidance for Regional Planning Based on the Act on Promoting the Treatment of Marine Debris • Good Practices for Measures to Control Marine Debris Generation • Manual for Marine Litter Collection through Cooperation between Fishermen and Local Governments • The Guidelines for Harmonizing Marine Litter Monitoring Methods Using Remote Sensing Technologies • Guidelines for Harmonizing Ocean Surface Microplastic Monitoring Methods • Guidelines on fishery-related waste management • Guidelines for the Promotion of Planned Disposal of Fishery Waste
Mexico	• At the local level, Mexico City has a Law on Circular Economy (February 2023), which states that the productive sector has to reduce its ecological footprint; reducing the use of natural resources, energy, and waste in their processes and products.
The Republic of Korea	• Production / Manufacturing: Inspection regulations for biodegradable fishing gear. Criteria for biodegradable fishing gear resin, for biodegradation effectiveness, and for the strength of biodegradable nets. • Leakage monitoring: Assessment of microplastic distribution to determine their quantity and form in the ocean. Monitoring the quantity and types of marine microplastics on beaches, sea surfaces, and the seafloor.
South Africa	• SA promulgated the ECA: Plastic Carrier Bags and Flat Bags Regulations of 2003 and the associated Standards Act Compulsory Specification for Plastic Carrier Bags and Flat Bags of 2003.

Country	Technical standards, guidelines, and methodologies shared by countries
Türkiye	• The Ministry of Environment, Urbanization, and Climate Change published *the Monitoring Guidelines on Marine Litter* in 2019. The project on Standardization in Marine Monitoring Phase II" has been going on since June 2024 to revise marine monitoring guidelines. At the end of the project, revision of guidelines according to updated and current monitoring strategies and new indicators will be completed, and the new version of the guideline related to marine litter will be published at the end of 2025.
The UK	• Plastic pellet loss prevention: the administrations of the UK supported the development of a Publicly Available Specification developed by the British Standards Institution, which sets out how any business handling or managing pellets can reduce pellet loss. This is the first of its kind and was published in July 2021. PAS 510:2021 sets out requirements for the handling and management of plastic pellets, flakes, and powders throughout the supply chain to prevent spills, leaks, and loss to the environment • Management of End-of-Life Recreational Vessels: To fulfil the UK's commitment to lead action B.2.1 of the OSPAR Regional Action Plan on Marine Litter on end-of-life recreational vessels, the UK commissioned research to identify estimates of recreational vessels in each OSPAR nation and develop a methodology to quantify the number of recreational vessels in use and coming to the end of their life across the OSPAR Maritime Area • Responsible Fishing Vessel Standard (RFVS) (Voluntary Measures) • Food and Agriculture Organisation (FAO) Code of Conduct for Responsible Fisheries (CCRF) (Voluntary Measures)
Invited / Other Countries	
Myanmar	• Apply the Clean Cities, Blue Ocean (CCBO) Program's Marine Litter Audit Guidebook to monitor and assess MPL along the beaches.
Norway	• Under the Nordic Council of Ministers, there is an ongoing project that will help prepare for and develop more harmonised plastic statistics in the Nordic countries. The project scope includes production, import, export, and waste management of plastics, but leakages to the environment are not included.
The Netherlands	• The EU's Ecodesign for Sustainable Products Regulation, under which circular design requirements for a wide range of products can be set, allows e.g. for regulating microplastic release. • The European Commission will adopt the Eco-design Working Plan, which sets out the product priorities for 2025–2027, at the beginning of 2025 • Conducts environmental monitoring, including the assessment of plastic pollution and leakage into the environment, providing reports and data on waste management and environmental impacts, according to Marine Strategy Framework Directive
New Zealand	• There is nothing from a government perspective; however, the national body for the plastics industry leads Operation Clean Sweep (OCS) in New Zealand. OCS is a voluntary, industry-led, international programme designed to prevent the loss of microplastics into the environment.
Peru	N/A
The Philippines	• RA 11898: Obliged enterprises shall establish or phase-in EPR programmes for plastic packaging to achieve efficient management of plastic packaging waste, reduced production, importation, supply, or use of plastic packaging deemed low in reusability, recyclability, or retrievability and plastic neutrality through efficient recovery and diversion schemes. • THE LGU SWM Self Compliance Monitoring and Auditing Report (SCMAR) is a tool or report that LGUs prepare to assess and document their own compliance with environmental laws, such as RA 9003. This includes waste diversion rate, collection efficiency, etc. The EMB has endorsed the draft policy to the DENR for further review by the Policy Technical Working Committee.

Country	Technical standards, guidelines, and methodologies shared by countries
Singapore	N/A
Spain	• Europa (Study to support the implementation of obligations set out in the Single Use Plastics and Port Reception Facilities Directives)
Thailand	• The Marine Department adheres to international conventions such as MARPOL (International Convention for the Prevention of Pollution from Ships) Annex V concerning the discharge of garbage from ships.

3

Measures

This chapter provides the measures implemented by countries in their fight against MPL, including those implemented across plastic value chain to phase out/rationalize plastic production, use and waste; those specifically targeting maritime sources including Abandoned, Lost and Discarded Fishing Gears (ALDFGs) and waste produced from ships; measures promoting partnerships and innovation; and efforts promoting monitoring, data management and understanding on flow of plastic litters.

Countries are employing a wide range of policy tools, from legislative initiatives, development of guidelines and standards to guide subnational governments and/or value chain actors, Extended Producer Responsibility (EPR) schemes, to green procurement aiming to create a market for products based on secondary materials, and funds for supporting actions by diverse non-government actors.

3.1. Measures across the Value Chain

This section summarizes reported actions across the plastic value chain, from upstream measures aimed at preventing plastic waste from being generated, such as encouraging sustainable/circular product design, to downstream measures aimed at avoiding emission of plastic waste into the natural environment, including the aquatic environment, such as strengthening waste management and recycling systems and clean-up activities in coastal areas.

3.1.1. Actions for Encouraging Sustainable/Circular Product Design

Twenty-one countries (12 G20 members and nine invited countries) responded positively, indicating that they had implemented/are implementing actions, while one country reported that it had not taken such actions (Figure 5).

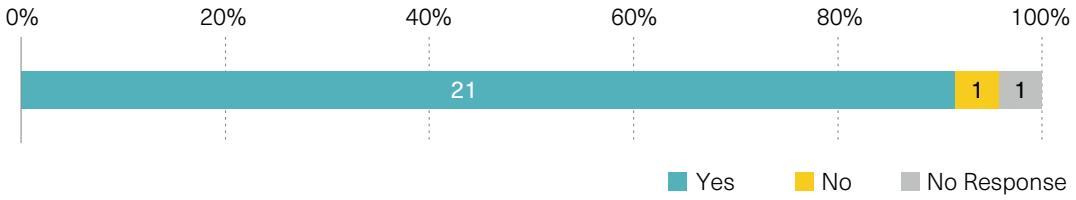


Figure 5: Status of prevalence of policy actions for encouraging sustainable/circular product design in countries

Reported policy instruments ranged from the development of national strategies, action plans, regulations, and roadmaps, formulation of the EPR scheme, eco-design requirements, standards, and guidelines to product evaluation systems, eco-labelling, and private sector plans, pacts, and partnerships (Figure 6).

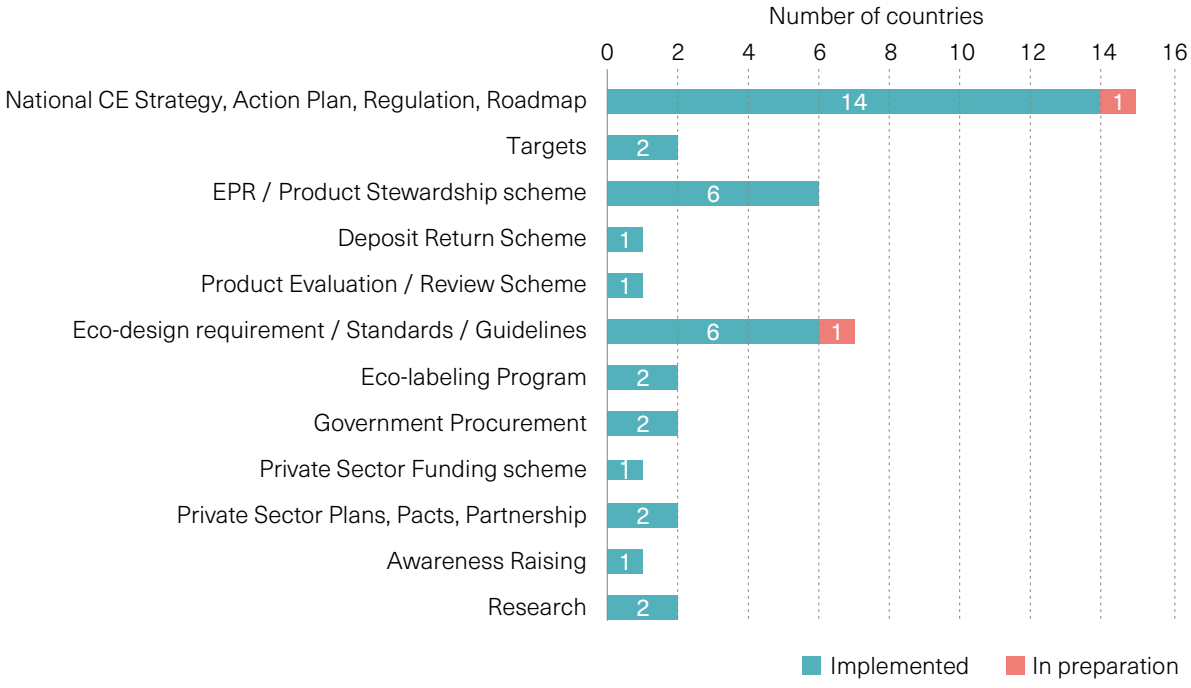


Figure 6: Status of implementation of measures for encouraging sustainable/circular product design in countries

Legal and Policy Framework

Many countries reported having formulated comprehensive laws, national strategies and action plans which generally promote actions in line with circular economy principles including those promoting eco-design. This includes, for instance, Australia (*Circular Economy Framework*), the EU (*Strategy for Plastics in a Circular Economy*), Germany (*National Circular Economy Strategy*), the Philippines (*Republic Act 11898 EPR Law*), and France, which reported its establishment of a roadmap for a circular economy aiming for 100% recycled plastics by 2025. Similarly, Mauritius reported developing a *Roadmap on Circular Economy* which provides for a circularity approach to improve plastic product design. China issued *Opinions on Further Strengthening Plastic Pollution Control*, requiring manufacturers to strictly implement national standards and encouraging green designs to improve safety and recycling performance.

Targets

Two countries have set targets to drive sustainable design. Italy's *National Strategy for Circular Economy* includes a target to introduce binding eco-design specifications by 2035. Meanwhile, Australia's voluntary *National Packaging Targets* have driven systemic change in how packaging is designed, collected, and recovered.

EPR

EPR schemes are also intended to encourage sustainable and circular product design. The Philippines' *EPR Act (RA 11898*) establishes a regulatory framework that actively promotes sustainable product design by requiring companies to adopt reusable packaging, incorporate recycled materials, and establish product refilling systems. Italy has also introduced an EPR system for textile products that incentivizes eco-design to eliminate hazardous substances and promote repairability. Similarly, France modulates its EPR fees based on environmental performance criteria, including reusability.

Eco-design Requirements, Standards, and Guidelines

Many countries have established specific requirements to mandate better product design. For instance, in the EU, *the Ecodesign for Sustainable Products Regulation*, which entered into force in July 2024, enables the creation of targeted eco-design rules for a wide range of products, covering aspects like durability, reparability, and recycled content. Additionally, Spain has implemented harmonised EU standards, allowing only single-use plastic products with caps and closures that remain attached to the container to be placed on the market. In the Republic of Korea, an "Evaluation System for Recyclability" evaluates factors impeding the recyclability of products and containers, encouraging manufacturers to make improvements.

Australia is considering mandatory packaging design requirements and setting minimum recycled content thresholds to drive end markets for recycled content. Similarly, New Zealand has banned several hard-to-recycle items, such as PVC trays and polystyrene takeaway packaging, under its Waste Minimisation Regulations, while also advancing a "Right to Repair Bill" to ensure that repair facilities and parts are reasonably available. Furthermore, Norway enacted a national law on sustainable products and value chains in July 2024, establishing a legal framework for new regulations that promote a circular economy.

Ecolabeling Program

In Spain, plastic bottles may be voluntarily labeled to include information on the percentage of recycled plastic they contain, providing transparency to consumers. While in Singapore, the Singapore Green Labelling Scheme (SGLS) serves as an environmental standard and certification mark administered by the Singapore Environment Council, a non-governmental organisation (NGO). The scheme helps

the public identify environmentally preferred products that meet specific standards. SGLS categories contributing to sustainable or circular product design include 'Products with Recycled/Sustainable Content.'

Government Procurement

In Italy, the *Minimum Environmental Criteria (MEC)* policy defines mandatory sustainability requirements for products and services procured by the public administration sector.

Private Sector, Plans, and Partnership

In Singapore, the Singapore Manufacturing Federation (SMF) has partnered with the National Environment Agency (NEA) to implement the industry-led Packaging Partnership Programme (PPP). The PPP is a capability development programme that supports companies in adopting sustainable packaging waste management practices. Efforts include helping companies fulfil their regulatory requirements under the *Mandatory Packaging Reporting (MPR) Scheme* and enabling the exchange of best practices.

Some countries are adopting specific approaches to promote circular design by focusing on particular product groups or sectors. For example, Peru is developing distinct, legally established *"Roadmaps towards a circular economy"* for specific sectors, including industry, fishing, and aquaculture. In addition, the UK is supporting the development of a Circular Economy Strategy, which will include sector-by-sector roadmaps for areas such as agri-food, textiles, and transport. The UK has also contributed to the development of a standard for the circular design of fishing and aquaculture gear through the European Committee for Standardization (CEN).

3.1.2. Policy Actions for Encouraging Plastic Alternatives and Recycled Materials in the Production Stage

Promoting the use of recycled materials or sustainable alternatives in products can, in effect, reduce the demand for virgin materials, thereby reducing environmental impact at production stages.

Eighteen countries (11 G20 members and seven invited countries) responded positively to having implemented / are implementing actions under this category while policy responses are "in preparation" in one country (Thailand) (Figure 5). Of the 23 countries, actions on the "use of biodegradable plastics" are reported by seven countries (China, EU, France, Italy, Japan, Mauritius, and the Republic of Korea) and "use of recycled materials" by 13 countries (Figure 6). Only three countries (Singapore, Spain, and Thailand) reported on closed-loop recycling.

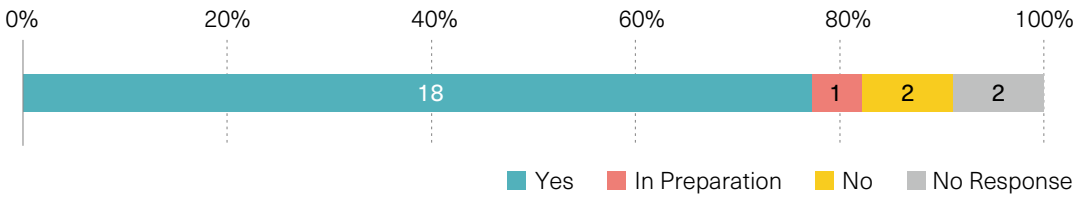


Figure 7: Status of prevalence of policy actions for encouraging plastic alternatives and recycled materials at the production stage in countries

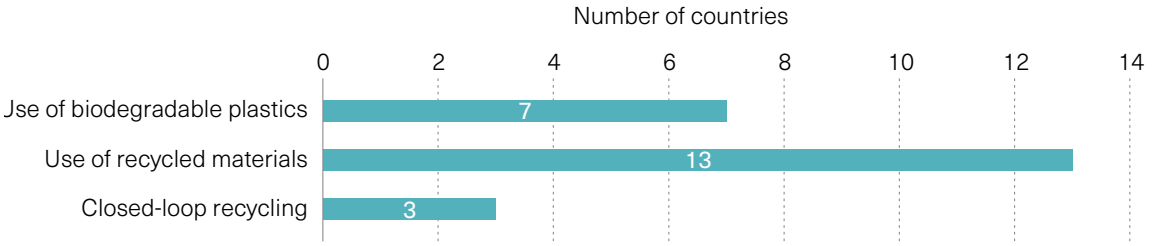


Figure 8: Use of sustainable materials in the production process in countries

Countries are implementing a wide range of policy tools and approaches to promote the use of plastic alternatives and recycled materials at the production stage. This includes the introduction of product labeling on recycled content, setting rules for recyclability during the production stage, establishing quality/ technical standards, minimum recycled content and proportion requirements, requesting companies to develop and implement a corporate action plan, promoting research and development, and implementing government procurement requirements (Figure 9).

Figure 9: Status of implementation of measures to encourage plastic alternatives and recycled materials in the production process in countries

Comprehensive Laws, Strategies, and Action Plans

The promotion of plastic alternatives and recycled materials in the production stage constitutes an important element of national laws, strategies, and action plans in many countries.

The EU has a policy framework for biobased, biodegradable, and compostable plastics and has set recycled content targets in its *Single-Use Plastics Directive and Packaging and Packaging Waste Regulation*. Other national strategies include Singapore's *Zero Waste Masterplan*, which encourages

companies to minimize waste; South Africa's *National Waste Management Strategy*, which promotes alternatives to landfilling; and Thailand's *Roadmap on Plastic Waste Management*, which encourages the use of plastic alternatives and recycled materials.

The *Philippine Action Plan for Sustainable Consumption and Production (PAP4SCP)* encourages the use of secondary raw materials (e.g., paper, plastic, and glass culets) for production, which is complemented by the recycled content requirements mandated by its EPR Act.

In addition, Myanmar has specific rules in place that permit the import of recycled plastic scrap only if it meets certain criteria, such as being clean, homogenous, and used directly as a raw material in a facility with an approved Environmental Compliance Certificate. The Republic of Korea provides subsidies to fishermen who replace existing fishing gear with biodegradable alternatives and has inspection regulations for biodegradable fishing gear.

Recycled Contents Requirements

Several countries are introducing or considering requirements for the use of recycled content in products.

Many countries are implementing targets based on the EU's *Single-use Plastics Directive*. For instance, Germany has a mandatory minimum requirement for the use of recycled content in certain single-use plastic beverage bottles, starting in 2025. The Netherlands introduced a national standard in 2023, which sets a minimum share of circular/bio-based plastics for all the polymers placed in the Dutch market (15–20% once it takes effect in 2027, to be increased to 25%-30% in 2030). France requires packaging producers to gradually increase the minimum proportion of reused packaging from January 2023 (5% in 2023 and 10% in 2027). Similarly, Spain, Italy, and Norway have set targets for minimum recycled content in PET bottles, typically aiming for 25% by 2025 and 30% by 2030. Furthermore, Norway plans to implement the EU's new *Packaging and Packaging Waste Regulation*, which sets more ambitious targets of 10-35% recycled content by 2030 and 25-65% by 2040.

Australia is setting minimum recycled content thresholds, aiming to drive demand for recycled materials in end markets. While Canada has also published a regulatory framework paper proposing minimum recycled content requirements for certain plastic packaging, the proposed regulations are currently on hold.

Rules for Recyclability

In Spain, *Royal Decree 293/2018* on reducing plastic bag consumption states that all plastic bags provided to consumers must be compostable. While in Canada, rules for recyclability are in place.

Standards

France has defined standards for reusable packaging for the catering sector, as well as for fresh produce and drinks. China strictly implements national laws requiring plastic products to meet relevant standards and prohibits the addition of harmful chemical additives.

Guidance

Guide documents serve as practical tools that provide actionable strategies, showcase successful implementations, and offer structured approaches to achieve policy goals in sustainability and the circular economy.

In the EU, the *2022 EC Policy Framework* on bio-based, biodegradable, and compostable plastics clarified the role of these materials in contributing to a sustainable and circular economy by identifying their opportunities, challenges, and conditions necessary for genuine impact.

In Singapore, the *Zero Waste Masterplan* outlines strategies to reuse and recycle resources, turn trash into treasure, and promote sustainable production and consumption.

Other countries have also developed guiding documents to steer their transition. Canada has established guidance for selecting sustainable alternatives to items that are banned under its *Single-use Plastics Prohibition Regulations*. Meanwhile, Thailand's R*oadmap on Plastic Waste Management* promotes and encourages the use of plastic alternatives and recycled materials.

In Japan, the *"Guideline for Design of Plastics-containing Products"* encourages manufacturers to use recycled and bio-based plastics, while its *"Roadmap for Development, Introduction and diffusion of Marine Biodegradable Bio-based Plastics"* supports research and technological development.

Tax

Economic instruments are used to incentivize the uptake of recycled materials. In the UK, the *Plastic Packaging Tax* (introduced in 2022) is charged on plastic packaging that contains less than 30% recycled plastic, creating a clear economic incentive for businesses to use recycled materials.

Corporate reporting requirements

Singapore implemented the *Mandatory Packaging Reporting (MPR) Scheme* in 2021. Producers of packaged products, such as brand owners, manufacturers, and importers, as well as retailers such as supermarkets with an annual turnover of more than $10 million, are required to submit packaging data and plans to reduce, reuse, or recycle packaging.

Research and Development

Countries are engaged in research and development to promote alternatives and better understand their impacts. Canada, through its Plastic Innovation Challenge, supports innovators and small to medium-sized enterprises in developing solutions, such as sustainable alternatives to plastic packaging. Meanwhile, France partners with national agencies and research centres to lead scientific research on marine litter, which includes quantifying litter from rivers and wastewater, monitoring microplastics in various environments, developing transport models, and studying plastic alternatives. On the other hand, France partners with national agencies and research centres to lead scientific research on marine litter and plastic alternatives, such as the reuse of packaging and alternatives to single-use plastic packaging, and the development of a methodological framework for comparative LCA of alternatives to single-use plastic packaging.

3.1.3. Steps Taken towards Restricting Microplastics in Products

Sixteen countries (10 G20 members and six invited countries) responded positively to having implemented / are implementing actions under this category while four countries responded that they do not execute actions (Figure 10).

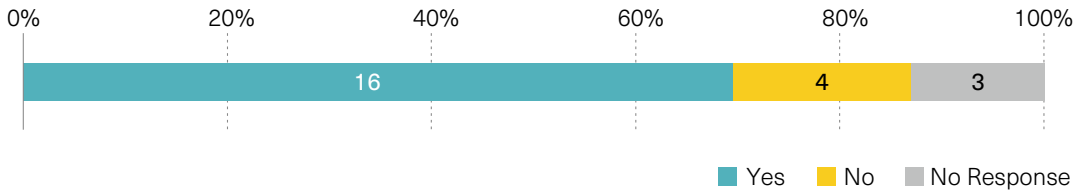


Figure 10: Status of prevalence of restrictive measures for microplastics in products in countries

Ban on Intentional addition of microplastics

Many countries have taken regulatory action to prohibit the intentional addition of microplastics to products, particularly cosmetics. The EU has a broad regulation that restricts intentionally added microplastics, defined as synthetic particles under 5mm that are organic, insoluble, and resistant to (bio) degradation.

Following this, several member states have implemented specific national laws. Spain prohibits the addition of plastic microspheres that are less than 5mm in diameter. As of January 2020, Italy banned microplastics in rinse-off cosmetic products intended for exfoliation or cleansing. France is progressively expanding its ban, having started with exfoliating cosmetics in 2018, followed by medical devices in 2024, and plans to ban rinsed cosmetics, such as shampoos, by 2026.

Non-EU countries have also acted. Canada's *Microbeads in Toiletries Regulations* (2017) ban toiletries containing microbeads, and the UK has similar bans in place. New Zealand has banned the sale and manufacture of wash-off products containing plastic microbeads for exfoliation or cleaning. In Asia, Thailand prohibited the manufacturing and import of cosmetics containing plastic microbeads in 2020, and Japan's cosmetics industry adopted a voluntary standard to stop using them in body scrubs in 2019. The Philippines reported that bills have been proposed for a similar ban. China banned the production of daily chemical products containing plastic microbeads by the end of 2020 and prohibited their sale by the end of 2022. Similarly, the Republic of Korea prohibits the manufacture, sale, and import of cosmetics and non-medical cleansing products containing solid plastics smaller than 5mm.

Other Products and Approaches

The targeted products often extend beyond cosmetics (Figure 11). The EU's restrictions include detergents, cleaning products, fertilizers, medical devices, and infill materials for artificial turf. In Canada, the restriction on microbeads also extends to non-prescription drugs and natural health products. Meanwhile, Norway has a specific national regulation for granular infill used on sports pitches. In the Republic of Korea, the ban on microplastics extends to laundry products such as fabric softeners, bleaches, and laundry detergents.

Countries are also addressing other sources of microplastic pollution. The UK is involved in international efforts to harmonize the methodology for measuring tyre abrasion and to set limits on the abrasion rate of tyres. Taking a research-focused approach, South Africa has established a microplastics laboratory under the Commonwealth Litter Programme to enhance scientific training and research on microplastic pollution.

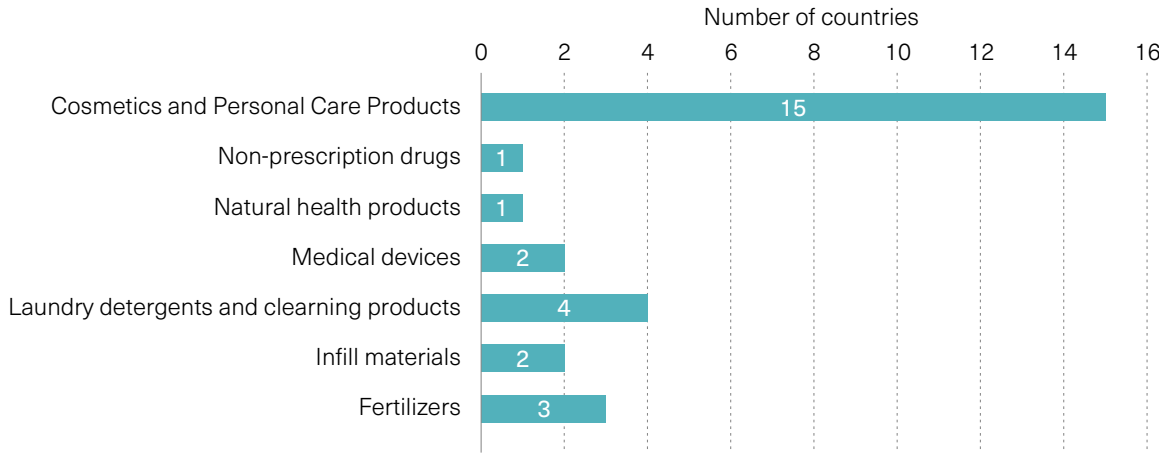


Figure 11: Product categories subject to microplastics restrictions in countries

3.1.4. Reduce Single-Use Plastics by Regulations or Voluntary Measures

All 23 countries (13 G20 members and 10 invited countries) responded positively to having implemented / are implementing actions under this category (Figure 12). Breakdown of policy instruments employed in each country suggest that Regulatory measures (22 countries) and Economic measures (17 countries) are among most well adopted categories followed by Information measures (8 countries) and others (6 countries) (Figure 13). It is noteworthy that the majority of respondents are increasingly relying on a combination of several policy instruments.

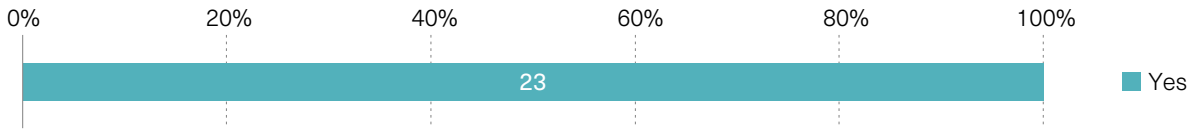


Figure 12: **Status of prevalence of SUP reduction measures in countries**

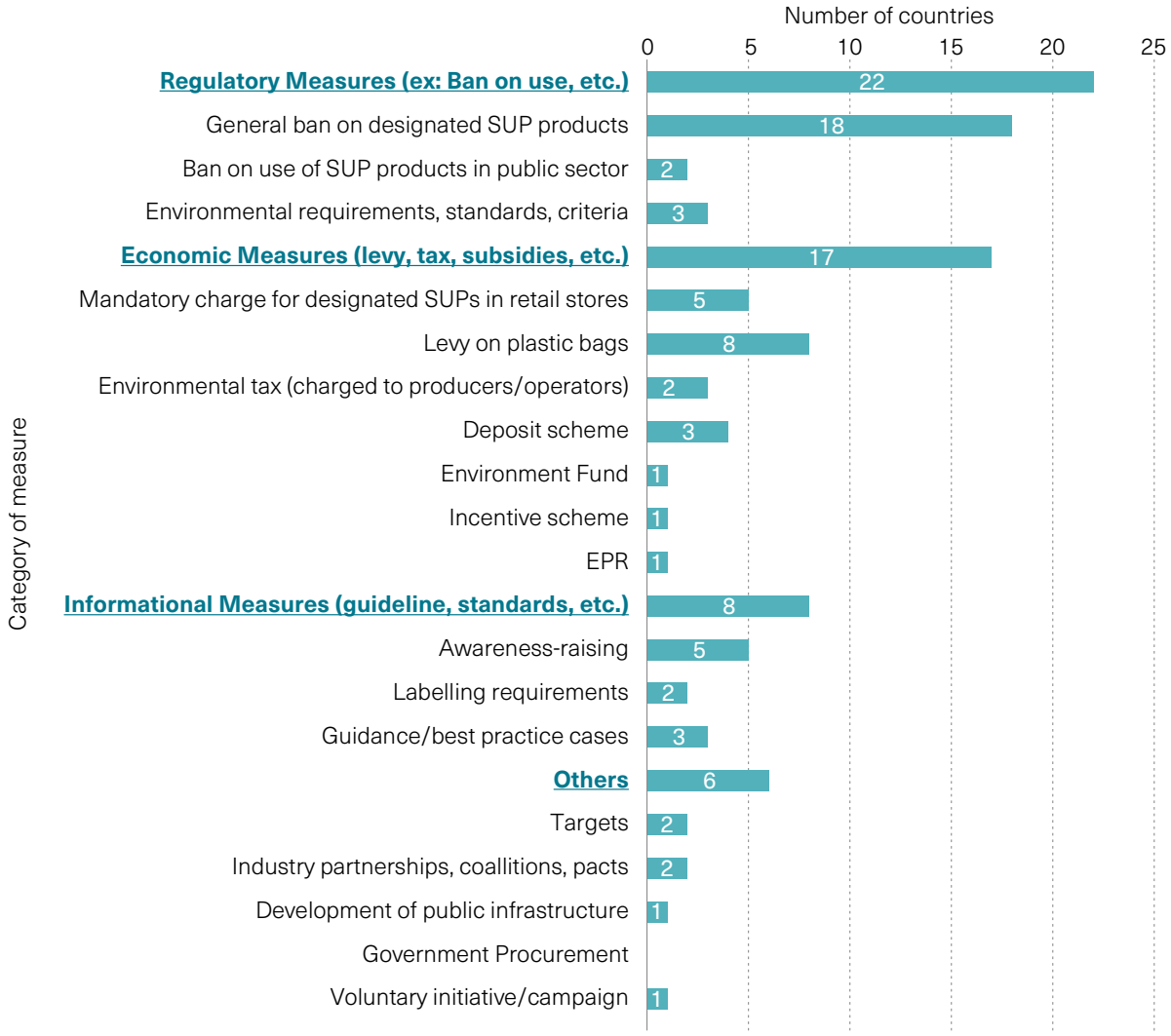


Figure 13: **Prevalence of different categories of policy instruments utilised for SUP reduction in countries**

Regulatory Measures

Of the regulatory measures reported, the introduction of bans on designated SUPs is the most widely adopted instrument, though the scope of targeted products differs among countries.

Several countries have implemented comprehensive and phased bans on plastic. New Zealand has a phased-out work programme that, between 2022 and 2028, bans items used in the food and beverage sector including PVC trays, polystyrene packaging, plastic tableware, straws, and produce bags and produce labels. Spain's *Law 7/2022* on waste and contaminated soils for a circular economy prohibits the following items to be placed on the market: (a) SUP products (beverage and food containers, cotton swabs, cutlery, plates, straws, drink stirrers, sticks destined to hold balloons, feminine hygiene products, wet wipes, tobacco products with filters, fishing gear, plastic bags) and (b) products made of oxo-degradable plastic and c) plastic microspheres of less than 5mm added intentionally. On the other hand, Italy has also gradually expanded its bans, from non-biodegradable shopping bags in 2018 to implementing the full *EU SUP Directive*.

In the EU, single-use plastic products cannot be placed on the market if sustainable alternatives are readily available and affordable, with targeted products including cotton swab sticks, cutlery, plates, and straws.

Other countries are targeting specific areas or items. Thailand prohibits the use of plastic products in its national parks, while Myanmar has issued an order banning the use of single-use water bottles in official meetings. In the Philippines, several local government units (LGUs) have implemented ordinances regulating SUPs, including a ban on specific SUP items. At the same time, the *National Solid Waste Management Commission Resolution No. 1428* officially declared plastic soft drink straws and plastic coffee stirrers as Non-Environmentally Acceptable Products (NEAP).

China has implemented bans on the production and sale of disposable foam plastic tableware, disposable plastic swabs, and ultra-thin plastic bags. By the end of 2020, the catering industry nationwide prohibited the use of non-degradable disposable plastic straws. In Mauritius, the "Environment Protection (Control of Single Use Plastic Products) Regulations 2020" and the "Environment Protection (Banning of Plastic Bags) Regulations 2020" restrict the manufacture, importation, and supply of plastic single-use products and carry bags.

NEA in Singapore has disallowed the use of disposable cutlery and crockery for dine-in meals at all newly-constructed hawker centres, and also applied this policy to new cooked food stallholders at existing hawker centres. Meanwhile, Mexico has implemented bans in specific jurisdictions like Mexico City, which prohibits the marketing and distribution of disposable plastic bags. The Republic of Korea bans the use of single-use cups, plastic straws, and the free provision of single-use bags in large-scale stores and food service businesses. Additionally, the use of plastic umbrella covers and plastic cheering equipment in sports facilities is prohibited.

Economic Measures

Countries reported implementing diverse economic instruments, including mandatory charges for designated SUPs, levies, environmental taxes, and deposit-return schemes.

Mandatory charges on plastic carrier bags are a common measure, implemented in Spain, the UK, Japan, China, and South Africa. Similarly, Türkiye has implemented a charge on plastic carrier bags since 2019, based on the *Procedures and Principles Regarding the Charging of Plastic Carrier Bags*. The Dutch government has advised ideal rates for a mandatory surcharge for SUP tableware to be set by vendors. The charge for SUP bags has gradually increased across the UK since 2015. Peru also applies a consumer-paid tax on the use of plastic bags to discourage their consumption. Similarly, in Singapore, larger supermarket operators are legally required to charge a minimum of five cents for

every disposable carrier bag provided at their retail outlets. This charge applies to disposable carrier bags made from all types of materials, including plastic.

Some countries focus on producer-funded systems. Germany established a Single-Use Plastics Fund, which requires producers of items like to-go cups and tobacco filters to pay a levy to cover the costs of public cleaning and waste disposal. While in Norway, the Norwegian Retailers' Environment Fund, a private sector initiative financed by a fee on plastic bags, funds national and international projects to reduce plastic pollution and has resulted in a tangible reduction in bag consumption. In the Republic of Korea, a deposit refund system is in place for disposable cups in beverage-selling brand stores in the Sejong and Jeju areas.

Mauritius currently applies an excise duty of Rs 2 on beverage PET bottles, and a deposit refund mechanism for PET bottles was announced in the 2025–2026 Budget.

Canada supports its sub-national governments by sharing best practices for implementing tools such as levies and deposit-return programs. The Canadian Council of Ministers of the Environment published the *'Best Management Practices for Disposal Bans, Levies and Incentives for End-of-Life Plastics,'* which has guided the adoption of measures such as single-use plastic fees, extended producer responsibility programmes for packaging, and deposit-return schemes. In 2022, the council released *'Guidance to Facilitate Consistent Extended Producer Responsibility Policies and Programmes for Plastics,' promoting uniformity through standardized product categories and definitions."*

Informational Measures

Informational measures are used to shift consumer behaviour. The EU focuses on reducing consumption through awareness-raising campaigns and labelling requirements that inform consumers about plastic content, proper disposal, and environmental harm.

In Mexico, the government has collaborated on promoting the *"Less Plastics Guide"* as a tool to prevent plastic consumption in the tourism sector.

Thailand has established voluntary programmes like *"Every Day Say No to Plastic Bags"* and signed Memoranda of Understanding with private sector actors, such as food delivery platforms, to reduce SUPs.

Others

Some countries reported other unique approaches. Australia's National Packaging Targets drive systemic change by including the phase-out of problematic and unnecessary SUP packaging. While in Singapore, regulatory measures to reduce disposables at food centres are complemented by encouraging the development of public infrastructure, such as everyday crockery, centralized dishwashing services, and shared water dispensers.

In Norway, a *"Plastic Partnership"* was established with business and industry to cooperatively reduce the consumption of single-use plastic cups and food containers.

3.1.5. Introduce Extended Producer Responsibility (EPR)

Overall trend

Seventeen countries (10 G20 members and 7 invited countries) responded positively to introducing EPR at a national and/or subnational level under this category (Figure 14).

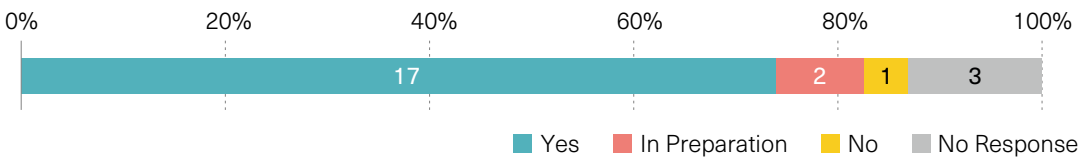


Figure 14: Status of prevalence of EPR schemes in countries

In the EU, the new *Packaging and Packaging Waste Regulation* sets clear obligations on extended producer responsibility, obliging producers to register and pay fees in every Member State where they place packaging on the market for the first time. The EU member states have introduced EPR schemes in their own jurisdictions; for instance, France has a comprehensive mandatory EPR system covering a wide range of products, including packaging, SUPs, and textiles, and plans to create a new producer responsibility organisation (PRO) for industrial and commercial packaging by 2025. In addition, Italy has introduced a mandatory EPR scheme for textile products, where compliance is ensured both collectively through PROs and individually. Meanwhile, Norway has established EPR schemes for several plastic-relevant products, including electronics, vehicles, tires, and packaging. It is formulating new schemes for specific single-use plastic products and plastic equipment used in the fisheries and aquaculture sectors.

On the other hand, EPR for packaging in the UK came into force in January 2025, shifting recycling costs from taxpayers to producers to incentivize better design and the use of more recyclable packaging.

In the Asia-Pacific region, the Republic of Korea has a mandatory EPR system where producers pay contributions to EPR entities. This system targets a range of products including packaging, tires, and batteries. The Philippines, under its EPR Act, requires obligated enterprises to recover their plastic packaging footprint, with a target of recovering 80% by 2028. Japan has a mandatory, collective EPR scheme for PET bottles and plastic containers where businesses bear the financial responsibility for recycling. Thailand reports that an EPR scheme for used packaging is in preparation, while Myanmar's *National Plastic Management Action Plan* has identified the need to introduce a voluntary EPR system.

In the Americas, EPR schemes are often implemented at the subnational level. In Canada, 12 out of 13 provinces and territories have regulated EPR schemes, and it is expected that over 90% of the population will be covered by EPR for plastic packaging. This is supported by intergovernmental collaboration through the Canadian Council of Ministers of the Environment (CCME), which has published guidance to facilitate consistent EPR policies across the country. Peru has mandatory EPR schemes in place for Waste Electrical and Electronic Equipment (WEEE) and used tires, while Mexico is in the process of strengthening its federal regulations on EPR.

Other countries are also advancing EPR. Türkiye has implemented a mandatory EPR system called the "*Recovery Contribution Share (GEKAP),*" which applies to plastic carrier bags and plastic packaging. New Zealand has an accredited, regulated EPR scheme for end-of-life tires ("Tyrewise"), with another scheme in preparation for farm plastics and agrichemical containers, and a plastic packaging scheme in the early stages of development. Furthermore, Australia is also considering the introduction of an EPR scheme.

The products and materials targeted by EPR schemes in responding countries are set out below (Table 5). *(The table does not include respondents who have EPR schemes but did not specify products/ materials)*

Table 5: Targeted products and materials of EPR schemes implemented in countries

Country	Targeted Products and Materials
Canada	EPR programmes are implemented at the subnational level (provincial and territorial), covering products such as packaging.
The EU	The Waste Framework Directive lays down rules for EPR. EPR is included in various EU legislations and applies to multiple domains, including single-use plastics and waste.
France	Packaging, single-use sanitary textiles, textile products for clothing, footwear, or household linen, tobacco products with filters, synthetic chewing gums, printed paper, graphic paper, construction products and materials, electrical and electronic equipment (batteries, contents and containers of chemical products), handicraft and garden products, sports and leisure goods, passenger cars, vans, two- and three-wheel motor vehicles and motor quadricycles, tires, mineral or synthetic lubricating or industrial oils, pleasure and sports boats, medicines, puncture-proof medical devices, furnishings, printed paper, graphic paper, construction products and materials
Germany	Packaging
Italy	Textile products, Packaging and packaging waste, polyethylene goods and related waste, and End-of-life tires
Japan	PET bottles and plastic containers
Mauritius	Beverage containers (plastic, aluminium cans)
The Netherlands	Single-use plastics. Drink cups, plastic bags, food packaging, sanitary products, drink packaging, tobacco products with filters, cotton buds, cutlery and plates, balloon sticks, fishing gear, and straws.
New Zealand	Tires *Schemes are in preparation for agrichemicals, their containers, and farm plastics, with a plastic packaging scheme in the early stages of development*.
Norway	Discarded electrical and electronic products, scrapped vehicles, collection and recycling of discarded tyres, return systems for beverage containers and packaging waste. *Schemes for single-use plastic products and plastic-containing fishing/aquaculture gear are in preparation.*
The Philippines	Plastic packaging
Singapore	Pre-packaged beverages in plastic and metal containers ranging from 150 millilitres to 3 liters. (The Beverage Container Return Scheme has not been implemented at the time of writing this report, and will be implemented from 2026 onwards.)
South Africa	Electrical and electronics, lighting, paper, packaging, and certain single-use product sectors
Spain	Domestic plastic packaging; phytosanitary and fertilizer products packaging; packaging for other agricultural products; packaging for drugs and medicines; single-use industrial and commercial packaging; out-of-use tires
Türkiye	Plastic carrier bags, Plastic packaging
The UK	Packaging

Nature of responsibility

In terms of the nature of responsibility among programme participants, nine countries reported both financial and operational responsibilities, including the EU, France, Germany, Italy, the Netherlands, New Zealand, Singapore,[2] Spain, and Thailand. In comparison, three countries (Japan, the Republic of Korea, and UK) have only financial responsibility (Figure 15).

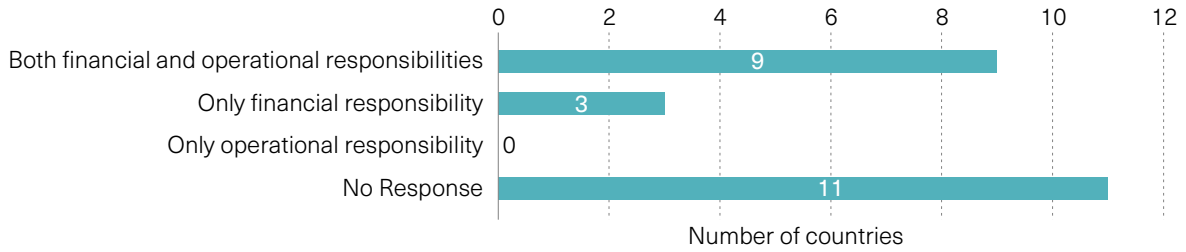


Figure 15: Nature of responsibilities under EPR schemes in countries

Responsibilities are fulfilled collectively in six countries (France, Japan, Mauritius, New Zealand, the Republic of Korea, and Singapore) while individually in two countries (the Netherlands and the UK). Responsibilities that are both fulfilled collectively and separately are reported in five countries, including Germany, Italy, Peru, Spain, and Thailand (Figure 16).

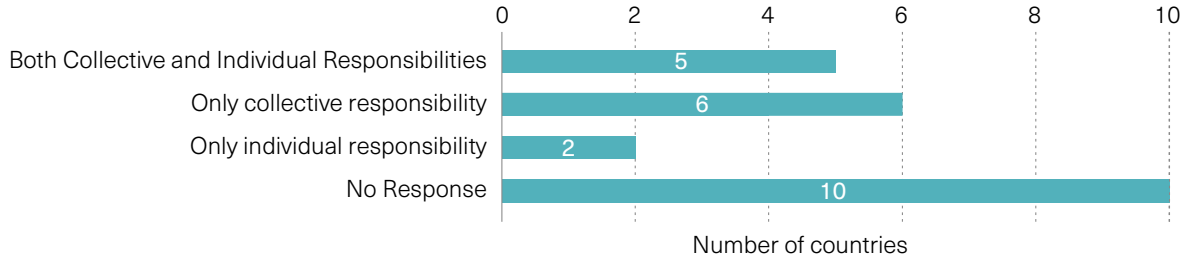


Figure 16: Mode of responsibilities under EPR schemes in countries

To give a few examples, in Türkiye, producers and importers pay a *"Recovery Contribution Share"* fee for products like plastic bags and packaging, with payments made directly to the Ministry of Treasury and Finance. While in the Netherlands, producers of packaging waste are legally responsible for its collection, recycling, and reuse, as well as for setting up a deposit return system, with implementation managed through the producer organisation Verpact. Meanwhile, in New Zealand, the "Tyrewise" scheme for end-of-life tires is a mandatory and collective EPR program where an advance disposal fee funds the nationwide resource recovery of tires. Similarly, in the Republic of Korea, most producers, importers, and brand owners pay contributions to the EPR system, which consists of 14 entities representing producers, collectors, and recyclers.

Modality

Fourteen countries instituted the EPR scheme as a mandatory scheme. The specific modalities of EPR schemes adopted in countries are summarised in the table below (Table 6). Prices for fees, taxes, subsidies, and other relevant costs are expressed in brackets where countries provided such information.

2 Singapore's Beverage Container Return Scheme has not been implemented at the time of writing this report, and will be implemented from 2026 onwards.

Table 6: Modality of EPR schemes implemented in countries

Modality	Countries where EPR schemes are implemented
Product take-back	The EU, France, Germany, Mauritius, New Zealand, Peru, Thailand
Advanced disposal fee	Italy, Mauritius (Rs 15 / Kg exported for recycling and Rs 30/kg for local recycling), New Zealand ($6.65 ex GST per Equivalent Passenger Unit for tires), the Republic of Korea ($0.026/kg~$0.75/kg), UK
Upstream Tax	France, Mauritius (Rs 2 excise duty on beverage PET bottles), Spain, Türkiye (86 kr./piece for plastic carrier bags, 670 kr./kg for plastic packaging)
Downstream subsidy	The Republic of Korea ($0.01/ kg~ $1.04/ kg), Spain
Deposit refund system	Germany (0.25 €/bottle or can), Mauritius, the Republic of Korea (Only glass bottles, 0.05$~0.25$ per bottle), Singapore ($0.10 SGD deposit),[3] Spain, Thailand, UK
Drop-off points	France, the Netherlands, Peru, Spain, Thailand

Eco-modulation

Modulation of fees based on the recyclability of products is implemented in several countries to incentivize more sustainable design. Examples from the survey include France, Germany, Italy, The Netherlands, the Republic of Korea, Thailand, and the UK, all of which reported having EPR schemes where fees are modulated based on environmental criteria.

Performance indicators

The majority of countries rely on either collection rates or recycling rates as performance indicators to monitor the effectiveness of their EPR schemes. However, specific definitions for these rates are rarely reported. Among the countries with EPR schemes, eight—Germany, Italy, New Zealand, the Netherlands, the Philippines, the Republic of Korea, Singapore, and Spain—have established clear targets.

For example, collection rates serve as a key metric in waste management strategies. Singapore has established a target return rate of 80% from the third year onward for pre-packaged beverages in plastic and metal containers, pending the implementation of its Beverage Container Return Scheme in 2026. This target is defined by the formula "total number of beverage containers collected by the scheme divided by the total number of containers placed on the market." Similarly, the Philippines has adopted phased recovery targets for plastic packaging, commencing at 20% in 2023 and gradually increasing to 80% by 2028. Italy has set an ambitious collection target of 95% for end-of-life tires, while New Zealand aims for a 100% collection rate under its *"Tyrewise"* scheme. In Spain, specific targets for household packaging waste collection have been established by material, including plastic, with objectives set at 55% by 2025, 65% by 2030, and 75% by 2035.

Recycling rates are another essential benchmark. Germany, for instance, has a target to recycle 63% of packaging under mandatory PRO participation mechanically. Italy has distinct recycling goals for various product streams, including a target of 15% for polyethylene goods and related waste. New Zealand is working towards recycling 90% of its collected tires domestically by 2030, aligning with its collection goals. Spain, on the other hand, has stipulated a recycling rate target mandating at least 65% of all packaging waste, by weight, to be recycled by 2025. The Republic of Korea reported a current recycling rate of 63%, representing the total average of all EPR products.

3 Singapore's Beverage Container Return Scheme has not been implemented at the time of writing this report, and will be implemented from 2026 onwards.

3.1.6. Improve Waste Management and Recycling System

The G20 plays a vital role in global waste management due to its substantial economic and environmental footprint. Its members are responsible for about 75% of global material use and 80% of greenhouse gas emissions (OECD, 2021). G20 countries are also the top producers, consumers, and recyclers of plastic waste, generating over 261 million tonnes in 2019, and this number is expected to rise to 416 million tonnes by 2050 without intervention (Economic Impact, 2023). Consequently, G20 decisions have a significant influence on global material markets, design standards, and waste flows. The G20's leadership is crucial for developing effective, systemic solutions to the global waste crisis.

All G20 members and invited countries have reported diverse actions to strengthen an integrated solid waste management (ISWM) system (Figure 15). These actions include the formulation/implementation of relevant legislation, strategies, and action plans, as well as the promotion of international cooperation to improve their waste management and recycling systems (Figure 18).

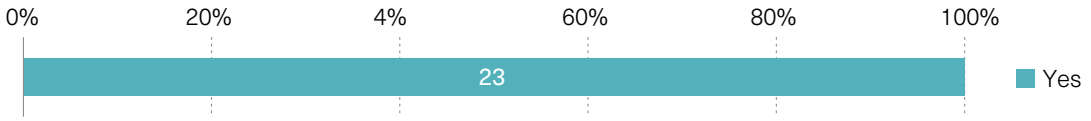


Figure 17: Status of prevalence of measures to improve waste management and recycling systems in countries

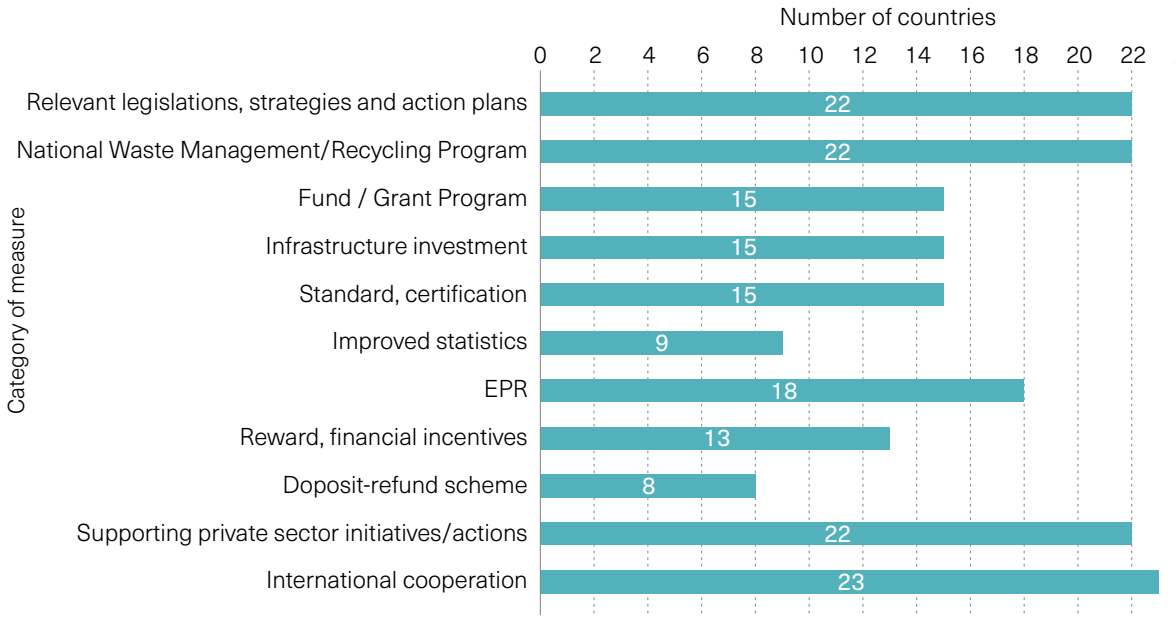


Figure 18: Policy tool for improving waste management and recycling systems

Legislation and National Programmes

The majority of countries are improving their waste management systems through robust legal frameworks and national programmes. The EU provides a comprehensive foundation with its *Waste Framework Directive*, which mandates member states to prevent litter and improve waste treatment. This is reflected in countries like France, which has simplified its nationwide sorting process, and the Netherlands, which is implementing *"From Waste to Resources"* programmes to improve separation. Other national laws include Spain's "Law on waste and contaminated soils for a circular economy" and the Philippines' *Ecological Solid Waste Management Act (RA 9003),* both of which are strictly enforced to ensure proper segregation and disposal.

Specific targets and principles also guide national efforts. Norway, through its *Waste Regulations*, has mandated the sorting of plastic waste from households, with a target of 70% by 2035. Japan focuses on comprehensive enforcement, supporting the installation of advanced recycling facilities and promoting proper collection of plastics from the agricultural and fishery sectors. Meanwhile, China has introduced a comprehensive state-led approach, focusing heavily on infrastructure construction (incineration and recycling), strict bans on certain plastics, and large-scale cleanup operations. China has also implemented the Plastic Pollution Control Action Plan (2021–2025) and amended the Law on Prevention and Control of Environmental Pollution by Solid Waste, and the Marine Environment Protection Law (2023 Amendment), which mandates coastal local governments to establish marine litter monitoring and cleaning systems. South Africa's *National Waste Management Strategy* promotes a waste hierarchy that encourages the reuse and recycling of materials. At the same time, Singapore has implemented stringent legislation, such as the Environmental Protection and Management Act (EPMA), to minimize waste at its source.

International Cooperation

All twenty countries reported actions to enhance waste management globally. Canada has invested CA$115 million to support environmentally sound waste management and plastic pollution mitigation in developing countries. The UK is the largest donor to the Global Plastic Action Partnership (GPAP), the World Economic Forum's flagship plastic pollution programme that brings together governments, businesses, civil society and academia to tackle plastic pollution and increase investment in waste management and the circular economy transition in ODA-eligible countries.

Fund/Grants

Financial support is a key tool for upgrading infrastructure. Australia is investing $250 million through its *Recycling Modernisation Fund (RMF)* to construct new and upgrade existing recycling facilities. The Netherlands operates a subsidy scheme to encourage the development of new recycling technologies, and Japan provides support for the installation of domestic recycling facilities.

Other Value Chain Interventions

France is simplifying sorting for citizens and experimenting with deposit schemes. The Netherlands is exploring the national standardization of waste collection and the certification of sorting processes. In Norway, a system has been established that rewards owners for handing in end-of-life leisure boats to dedicated waste management facilities, promoting the recycling of their plastic materials. Singapore complements its waste management system with strict anti-littering regulations and waterway clean-up measures to prevent land-based litter from entering the ocean.

3.1.7. Promoting Plastic Waste Reuse, Recycling, and Recovery Opportunities

Seventeen countries (10 G20 members and seven invited countries) are actively implementing diverse measures to promote plastic waste reuse, recycling, and recovery, driven by national strategies and legislative frameworks aimed at fostering circular economies and reducing plastic pollution (Figure 19). These efforts span legislation, promoting reusable products, enhancing collection and recovery systems, and implementing EPR schemes. (Figure 20).

Figure 19: Status of prevalence of measures to promote plastic waste reuse, recycling, and recovery opportunities in countries

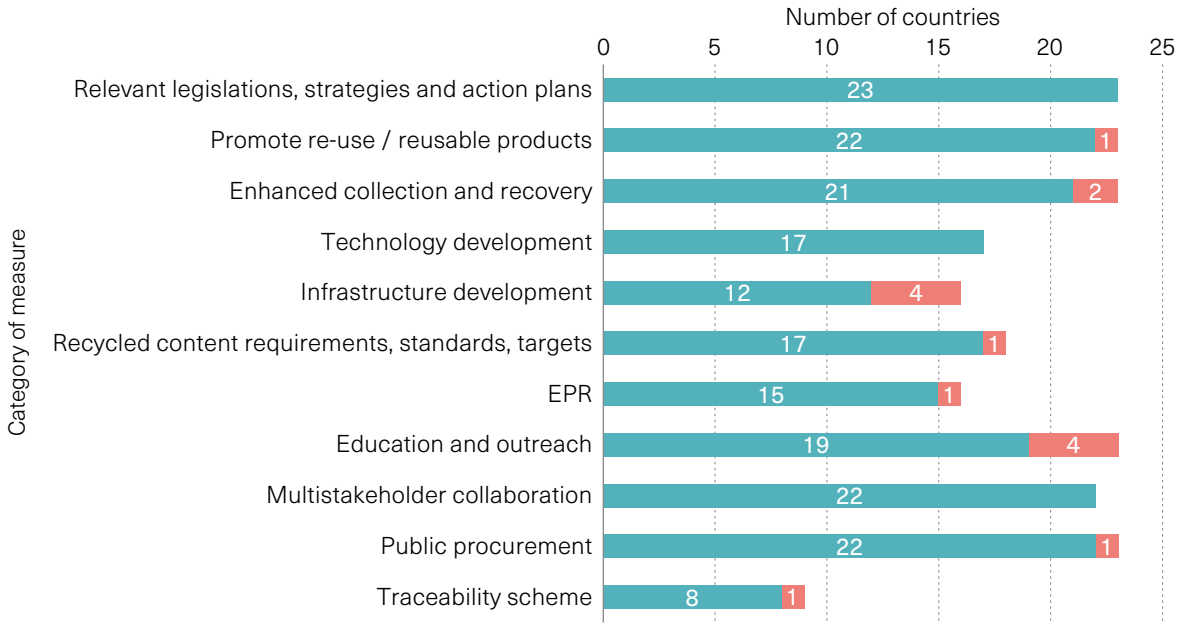


Figure 20: Measures for promoting plastic waste reuse, recycling, and recovery opportunities implemented in countries

Legislation, action plans, and strategies

All 23 reporting countries are embedding the promotion of reuse, recycling, and recovery opportunities within their high-level legal and strategic frameworks. A common approach is the adoption of national circular economy strategies. The EU's *Circular Economy Action Plan* serves as a foundational model, and countries such as Germany, Canada, Italy, Mexico, and Norway have developed or are developing similar comprehensive strategies to keep materials in use and reduce waste. In addition, the national strategies in some countries are often supported by foundational waste management laws, such as the Philippines' *Ecological Solid Waste Management Act of 2000 (RA 9003)* and South Africa's *National Waste Management Strategy*, which prioritize the waste hierarchy (reduce, reuse, recycle). In Mauritius, *the Waste Management and Resource Recovery Act*, proclaimed in 2023, aims to: (i) ensure environmentally sound management of solid and hazardous waste; and (ii) promote a sustainable waste management system through a circular economy approach emphasizing waste reduction, reuse, treatment, safe disposal, material recovery, and recycling.

Several nations have enacted specific legislation targeting plastics to drive these goals. Spain's *Law 7/2022* on waste and contaminated soils sets mandatory recycled content targets for beverage bottles. Australia's *National Waste Policy Action Plan* (2024) focuses on phasing out problematic plastics and regulating waste exports, while New Zealand has banned several hard-to-recycle plastic items. Thailand has a dedicated *Roadmap on Plastic Waste Management 2018–2030* that aims for 100% plastic recycling by 2027. The Republic of Korea enacted the *Management Act on Marine Debris and Contaminated Marine Sediment* in 2019, which stipulates measures for the environmentally sound and systematic management of marine debris and contaminated sediments. The Act aims to conserve the marine environment and enhance public quality of life.

Some plans have a specific focus on the marine environment. Japan's *National Action Plan for Marine Plastic Litter* (2019) and Türkiye's *Circular on the Preparation and Implementation of Marine Litter Provincial Action Plans* (2019) outline region-specific measures for prevention and clean-up. Other countries, such as Singapore, with its *Zero Waste Masterplan (2019)*, and Myanmar, with its *National Plastic Management Action Plan*, have also established detailed roadmaps that promote source separation, the 3R principles, and circularity.

Promote reuse and reusable products.

Nineteen countries are actively encouraging reuse models to reduce reliance on single-use plastics through a mix of regulations, national strategies, and voluntary initiatives.

Some nations are implementing direct regulatory measures and setting clear targets. France requires packaging producers to meet a "minimum proportion of reused packaging" annually, aiming for 10% by 2027, and has established a "re-use observatory" to support these solutions. Germany has a legal obligation for businesses to offer reusable packaging alternatives for take-away food and beverages. The EU sets reuse targets for specific sectors, such as transport and beverages, under its *"Packaging and Packaging Waste Regulation (PPWR)"* and promotes reusable options through awareness measures in its *"Single-Use Plastic Directive (SUPD)"*. Japan's *"Plastic Resource Circulation Act"* also mandates retailers to take initiatives to reduce the provision of specified single-use plastic products.

Reuse is also a central component of broader national strategies. Canada's *"Canada-wide Action Plan on Zero Plastic Waste"* supports value-retention processes, such as reuse and repair. Australia's "National Circular Economy Framework" guides reuse and is complemented by a voluntary *"ReMade in Australia"* scheme to promote products with recycled content. Similarly, countries such as Spain (Law 7/2022), Mexico (developing a National Strategy for a *Circular Economy*), Myanmar (National Plastic Management Action Plan), and South Africa (*National Waste Management Strategy)* all explicitly promote reuse as a core principle within their national plans.

Voluntary programmes, economic incentives, and community-led projects also play a crucial role. The Philippines' "*EPR Act of 2022*" promotes the adoption of reusable packaging, an approach supported on the ground by local initiatives creating reusable alternatives. Meanwhile, EPR regulations to be promulgated under *the Waste Management and Resource Recovery Act* in Mauritius, will establish a centralized system operator for managing post-consumer beverage bottles and containers, with the aim of increasing collection and recycling rates for plastic and aluminium beverage containers. Singapore runs the annual *Say YES to Waste Less* campaign, which partners with public and private organisations to encourage consumers to reduce the use of disposables and complements policy measures, such as the mandatory charge on disposable carrier bags at larger supermarket chains. Norway fosters reuse through a *"Plastic Partnership"* with industry, while Thailand promotes reuse and refill systems through voluntary programmes. In Türkiye, the *"Ghost Net Project"* demonstrates upcycling by reusing some retrieved fishing gear to create new products.

Enhanced collection and recovery

Several countries are also enhancing waste collection and recovery through ambitious targets, infrastructure investment, and targeted programmes for specific waste streams.

Many nations are improving collection systems by setting high targets and standardizing methods. The EU's *"Single-Use Plastic (SUP) Directive"* sets ambitious separate collection targets for plastic bottles, aiming for 90% by 2029, and its "*Packaging and Packaging Waste Regulation (PPWR)"* mandates the establishment of Deposit and Return Systems. This is reflected in member states like Germany, which has extended its mandatory deposit system, and in Norway, which has achieved a 92% recycling rate for plastic bottles through its own deposit return scheme. To improve consistency, New Zealand implemented "*Kerbside Recycling Standardisation"* in 2024 to align collection practices nationwide. In Asia, Myanmar's *"National Plastic Management Action Plan"* aims to establish Material Recovery Facilities (MRFs) and implement source-segregated collection using four types of bins.

Significant financial investment is being directed towards upgrading recycling infrastructure and technology. Australia's *"Recycling Modernisation Fund (RMF)"* includes a *Plastics Technology (PT)* stream that supports innovative technologies for hard-to-recycle plastics. Italy has allocated significant funding (€150 million) for the construction of new mechanical and chemical recycling plants.

Countries are also targeting specific waste streams and enhancing recovery through active clean-ups. For fishing gear, Norway conducts annual retrieval surveys for Abandoned, Lost, or Discarded Fishing Gear (ALDFG), while Türkiye's *"Ghost Net Project"* has removed and recycled significant amounts of abandoned nets. To intercept waste before it reaches the ocean, the Philippines has installed trash traps in major river tributaries, and South Africa mobilizes youth to recover river litter through its *"Source to Sea Litter Combatting Project"*. These efforts are complemented by large-scale recovery campaigns, such as Japan's nationwide *"UMIGOMI Zero Week,"* which promotes simultaneous clean-up activities.

3.1.8. Install Capturing Trap/Filters on Drainages/Rivers

Fourteen countries reported installing /taking actions to install waste-capturing facilities, filters, and trash booms to prevent plastics from flowing into the water environment (Figure 21).

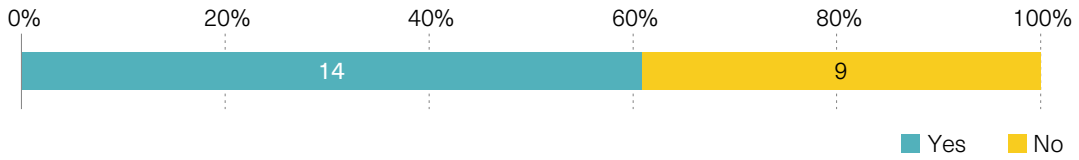


Figure 21: Status of prevalence of capturing traps, filters, and trash booms installed and relevant actions in countries

Various measures, including capturing traps, filters, and trash booms, have been implemented in these countries. For example, in Europe, France has been conducting several experiments involving waste traps and nets in water systems, rivers, and estuaries as part of its national roadmap to combat marine litter. Italy has adopted a three-year experimental programme for plastic recovery in rivers most affected by pollution, which includes the installation of floating barriers. This programme is financed through a Director's decree and targets specific riverine interventions. On the other hand, Spain has measures in place where some River Basin Authorities install capture grids for floating debris on river mouths near the ocean.

Furthermore, the Netherlands has supported various local and regional initiatives to install litter-capturing systems. An example is the Great Bubble Barrier system installed in Harlingen with support from local and regional governments to reduce litter flowing into the Wadden Sea. The UK has implemented measures to trap or screen drainage and rivers. Many storm overflows in England that discharge into rivers or the sea are required to have screens as a condition of their Environmental Permit. England is a constituent country within the UK, effectively functioning at a sub-national or provincial level.

Meanwhile, in the Asia-Pacific region, Japan has conducted surveys on plastic waste collected by dust collectors installed at several drainage pumping stations. In China, *the Action Plan for Marine Litter Cleanup in Coastal Cities (2024–2027)* requires coastal areas, while meeting flood control requirements, to install litter interception and collection facilities in rivers, ditches, and sluice gates, regularly remove accumulated litter, and strengthen interception and collection at river mouths before debris enters the sea. The Philippines has provided support for the installation of trash traps in the tributaries of major rivers, such as Pasig, Tullahan, Meycauayan, and Pampanga, to prevent waste from reaching the ocean. Singapore has dammed up tidal rivers to form reservoirs, which minimizes the flow of litter into the sea, and has installed vertical gratings, litter traps, and float booms as part of its drainage network.

In addition, Türkiye has ensured the installation and maintenance of necessary equipment, such as barriers and traps, in drainage systems and rivers identified as sources of litter within Marine Litter Provincial Action Plans.

3.1.9. Conduct Clean-Up Activities

All 23 responding countries reported conducting clean-up across various marine and aquatic environments, often involving local communities and operating at national, provincial, or local levels (Figure 22).

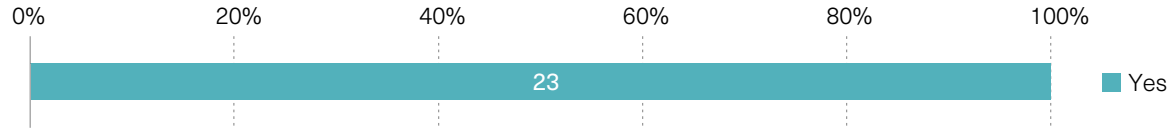


Figure 22: Status of prevalence of clean-up activities in countries

Large-scale national and international campaigns are a key strategy for mobilizing volunteers to conduct clean-up activities. Japan's "*UMIGOMI Zero Week*," a nationwide clean-up event, involved over 600,000 people in 2024. Similarly, the EU's annual *#EUBeachCleanup campaign*, organised in partnership with the UN, engaged 45,700 participants in 555 events across 44 countries in 2023. Türkiye also runs a primary national programme for public awareness and clean-ups called the *"Zero Waste Blue Movement"*.

Many initiatives integrate clean-ups with data collection to inform policy through citizen science. Spain finances clean-up activities that are explicitly linked to a harmonized citizen science data collection framework. In the UK, the government funds the Marine Conservation Society to record litter during beach cleans, and the *"Great British Beach Clean"* serves as a major citizen science event. Likewise, data from Australia's *ReefClean program*, where volunteers have removed over 138 tonnes of debris, is fed into the *Australian Marine Debris Initiative (AMDI) Database* to support source reduction plans.

Innovative funding mechanisms and targeted clean-ups for specific pollution pathways are also prevalent. Norway administers a grants scheme and supports the "Clean Norway in Time" program, which the Norwegian Retailers' Environment Fund funds to clean coastal areas, sea bottoms, and freshwater systems. The Netherlands focuses on inland waterways, establishing joint schemes to tackle litter in major river basins, such as the Rhine and Meuse, before it reaches the sea. Some programs target specific types of debris, such as Canada's Ghost Gear Program, which directly funds the retrieval of lost and abandoned fishing gear, involving local and Indigenous communities.

3.2. Measures against Maritime Sources

3.2.1. Abandoned, Lost, and Discarded Fishing Gear (ALDFG)

Abandoned, lost, or discarded fishing gear (ALDFG), commonly referred to as ghost gear, poses a critical global challenge, threatening not only marine life and coastal communities but also the sustainability of fisheries. Furthermore, their presence in the marine environment is a significant concern due to their role as a source of plastic pollution.

Out of the 23 respondents, most countries (19) have taken actions on fishing gear retrieval. In contrast, slightly fewer countries (15) have focused on prevention, and an even lower number of countries (14) have worked on the collection/recycling of fishing gear. Some countries have responded, while

the government takes no action, civil society organizations, including private enterprises, NGOs, and foundations, provide services such as gear retrieval, beach clean-ups, fishing gear collection, and recycling. A few countries responded that they were preparing to implement stronger policy measures against ALDFG. Examples of such countries include Spain and several other EU member states, which are working on implementing EPR for fishing gear, as well as South Africa, along with several other African countries, aiming to incorporate gear-marking and retrieval incentives into their fisheries management plans. The Canadian Ghost Gear Action Plan is currently being prepared and is set to be finalised by 2027. This trend may indicate that the importance of addressing marine pollution by ALDFG is gaining increased attention among policymakers.

The summary of the countries' responses is shown in Table 7.

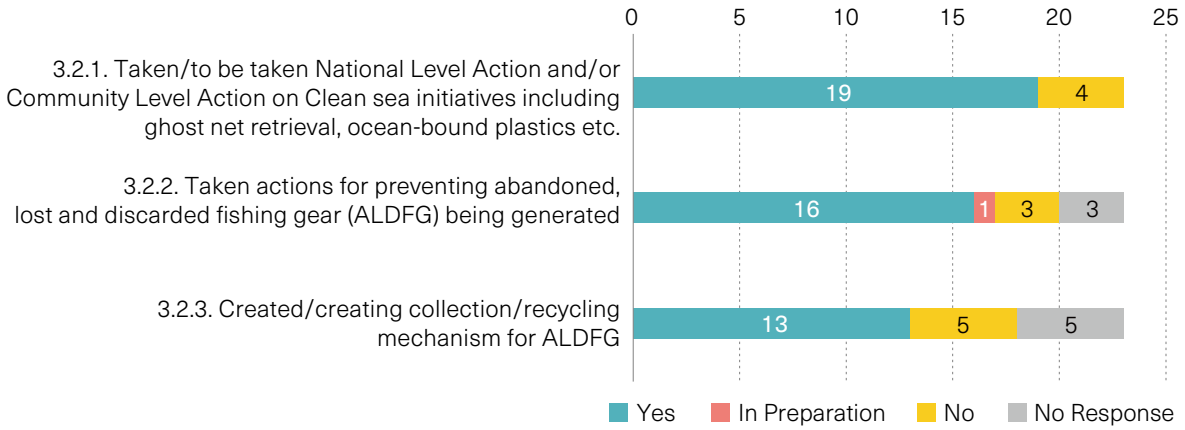


Figure 23: Status of prevalence of measures against ALDFG among countries

Table 7: Summary of countermeasures for ALDFG by country

Countries	ALDFG Retrieval	Prevention	Collection/Recycling
G20 Members			
Australia	Yes	Not Available	Yes
	Ghost Nets Initiative		Ghost Nets Initiative
Canada	Yes	Yes	Yes
	Ghost Gear Program	Mandatory reporting of lost fishing gear	Targeted project funding for the collection/recycling of fishing gear
	Canada-wide Action Plan on Zero Plastic Waste	Conditioned fishing license	
China	Yes	Yes	Yes
	Strengthen the management of agricultural and fishery waste	Promotion of environmentally friendly buoys	Standardized the recycling and disposal of used fishing nets and gears
The EU	Yes	Yes	Yes
	"Fishing for Litter" Program	EU Council Regulation (EC) No 1224/2009 ('the Control Regulation') establishing a control system for ensuring compliance with the rules of the Common Fisheries Policy, as recently amended by	The EN 17988 series, published in November 2024, provides clear guidelines for the circular design of fishing gear

The EU		Regulation (EU) (2023/2842), requires European Union fishing vessels to be equipped to retrieve lost gear and to report any gear lost at sea by the fishing vessel electronically in the logbook.	
France	Yes	Yes	Yes
	"Fishing for Litter" Program	INdIGO project (development of a prototype of biodegradable fishing gear)	Implementing the collection and recycling of fishing gear and aquaculture waste in line with the European directive
	GHOSTMED Program	Awareness-raising actions	EPR system for used plastic fishing gear (01/01/2025)
Germany	Yes	Yes	Yes
	Detection (by specific sonar and digital marking) and verification (by divers) of ALDFG	Design modification of the fishing net to prevent loss of dolly ropes	Participation in the MARELITT Baltic project
	Retrieval campaigns in the Baltic Sea	Education module applied in the training of fishermen	Recommendations for the disposal of fishing gear
	Suitability test of sonar in the North Sea	Pilot monitoring of lost angling gear and recommendations for measures to prevent litter inputs from recreational fisheries	
	The fishing for litter concept implemented in around 20 harbours of the North and Baltic Seas	Development of the Ghostnet. zero APP	
Italy	Yes	Yes	Yes
	The Strong Sea Life project	Identification and possible removal of fishing and aquaculture gear abandoned or lost at sea	Decree 27 October 2023 establishes a minimum annual national collection rate of plastic-containing fishing gear waste for recycling at 15% by weight of the plastic-containing fishing gear.
Japan	Yes	Yes	Yes
	Encouraging fishers to retrieve marine debris	Guidelines on fishery-related waste management	Subsidies for the promotion of the recycling of marine plastic waste in fisheries
Mexico	Yes	Yes	Not Available
	Global Ghost Gear Initiative (GGGI) active engagement The launch of the National Strategy for the Cleanup and Conservation of Mexico's Beaches and Coasts 2025–2030 in August 2024	Manual to prevent, mitigate, and correct the damage caused by Ghost Fishing Legislative proposal to regulate abandoned fishing gear	

The Republic of Korea	Yes	Yes	Yes
	National and local governments are collecting discarded fishing gear in accordance with the Management of Marine Debris and Contaminated Marine Sediment Act and its framework plan	A deposit system for fishing gear and buoys was introduced in 2022	National and local governments are responsible for collecting abandoned fishing gear generated during fishing activities
South Africa	No	In preparation	In preparation
		South Africa aims to incorporate gear-marking and retrieval incentives into its fisheries management plans	A new on-site fishing net recycling facility is being developed
Türkiye	Yes	Yes	Yes
	"Ghost Net Project" since 2014	Mandatory fishing gear marking	Ministry of Environment, Urbanization and Climate Change supports initiatives aimed at recycling ALDFG
		Regular training for fishers, citizens, relevant official institutions/organisations and NGOs	
		Awareness-raising activities in many schools	
The UK	Yes	Yes	Yes
	UK supports Fishing for Litter Program	Collaboration with Global Ghost Gear Initiative (GGGI)	Collaboration with Odyssey Innovation on a pilot recycling scheme for fishing gear
		The INdIGO project (Innovative Fishing Gear for Oceans)	
		FAO Voluntary Guidelines for the Marking of Fishing Gear	
Invited/Other Countries			
Mauritius	Yes	Not Available	Not Available
	The Ministry of Environment and the Beach Authority undertakes regular beach and lagoon cleanups		
Myanmar	No	No	No
The Netherlands	Yes	Yes	Yes
	Fishing for Litter programme	Fisheries for a Clean Sea Programme:	Implementation of the EPR scheme for fishing gear
	Duik de Noordzee Schoon and Ghost Diving	Collaboration with Global Ghost Gear Initiative (GGGI)	
		Mandatory reporting of lost fishing gear	

Norway	Yes	Yes	Yes
	Annual clean-up surveys for ALDFG since the 1980s	Created a national action plan for reducing marine litter from commercial and recreational fisheries and aquaculture	Created a national action plan for reducing marine litter from commercial and recreational fisheries and aquaculture
	Fishing For Litter scheme	Mandatory gear loss reporting system through the mobile app “Fritidsfiskeappen”	
The Philippines	Yes	Yes	Yes
	Physical retrieval activities are undertaken in some areas	Marking regulations on specific fishing gears. Fisheries Administrative Order no. 236-1, s. 2012	As provided under the accepted Port State Measures Agreement (PSMA)
Singapore	Yes	Yes	Not Available
		Licensing control to small-scale fishers	
Spain	Yes	Yes	No
	General Criteria for the Management of Abandoned, Lost, or Discarded Fishing Gear (ALDFG)	Working on the implementation of Extended Producer Responsibility (EPR) for fishing gear containing plastic	
	The LIFE IP INTEMARES project		
New Zealand	No	No	No
	Some environmental NGOs provide services	The Government has supported the aquaculture industry to investigate sources of marine plastic pollution and actions to reduce marine pollution	
Peru	No	No	No
Thailand	Yes	Not Available	Not Available
	reporting of the ALDFG found by weight		

3.2.2. Port Waste Reception

MARPOL Annex mandates that signatories require ports to provide adequate waste reception facilities for garbage, oily wastes, noxious liquid residues, and sewage, thereby preventing the illegal discharge of these substances into the ocean.

This section summarizes the trend of the management of waste from vessels in participating countries. A new set of questions on this subject was newly introduced this year, inquiring into the state of systems for port waste reception, including legal framework, institutions, facilities, and onshore procedures. Most respondents answered positively regarding the presence of a legal framework, responsible institution(s), facilities, and handling procedures. However, the response rate for this section was relatively low and requires further information from countries to provide a complete picture.

The EU has established the Port Reception Facilities directive, which regulates the delivery of waste from ships to port reception facilities (PRFs) and ensures that ships can dispose of their waste

appropriately while in port. In 2023, around 855,000 m^3 of oily waste was delivered to ports within the EU, with the majority consisting of oily residues (sludge) and tank washings (slops), followed by bilge water. Additionally, approximately 59,000 m^3 of noxious liquid substances, 250,000 m^3 of sewage, and 6,500 m^3 of residues, mainly from exhaust gas cleaning systems, were reported.

Australia monitors how ships process and dispose of garbage, including plastic waste, through the AMSA's risk-based Port State Control (PSC) inspection program, which conducts over 3,000 PSC inspections annually. PSC verifies that ships are meeting their MARPOL requirements for waste management, recording, and disposal.

In most countries, the port authorities are designated as the responsible institution. Additionally, in most countries, once waste is discharged at ports, domestic waste management laws are applied.

Only a few responses were received for the questions inquiring about quantitative data. Five countries reported that the total amount of waste collected at the ports is recorded on-site. South Africa (receiving around 1,200 tons of waste for FY 2023–2024) and the EU (with data as reported above) provided tangible figures, while the rest of the countries did not respond. In terms of the prevalence of waste reception facilities in ports, Singapore and the Netherlands have 100% of their ports equipped with such facilities, followed by South Africa (75%). In New Zealand, all 13 major commercial ports have waste reception facilities out of approximately 34 ports.

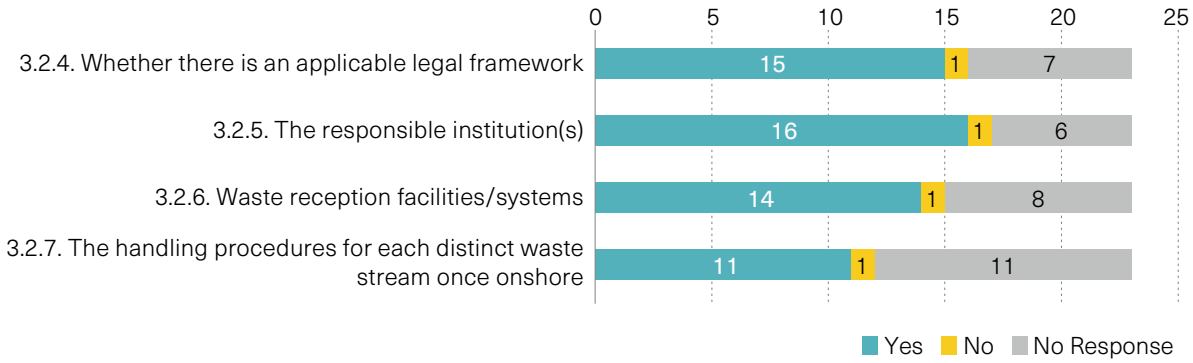


Figure 24: Status of prevalence of port waste reception systems among countries

3.3. Partnerships and Innovation

The creation of an enabling environment for systemic and sustained change in addressing MPL can be achieved by building broad-based support, driving behavioural shifts, and mobilising resources across society. To this end, policy interventions that promote multi-stakeholder partnerships, private sector engagement, public awareness, and innovative solutions play a crucial role.

The responses from the survey on partnership and innovation are shown in Figure 25. Twenty-two countries have established strong partnerships, involving multiple stakeholders and raising awareness about plastic and marine plastic pollution. Eighteen countries are encouraging private companies to reduce and manage their plastic waste, while three countries do not have direct engagement. Education about plastic pollution is included in formal learning/educational programmes in 17 countries, with two countries reporting no engagement and three countries not responding. Sixteen countries are actively promoting innovation through research and development, such as funding new projects or supporting innovative solutions, while five countries did not respond. This indicates that while collaboration and awareness efforts are well-established, a greater focus on innovation could help further progress in addressing plastic pollution.

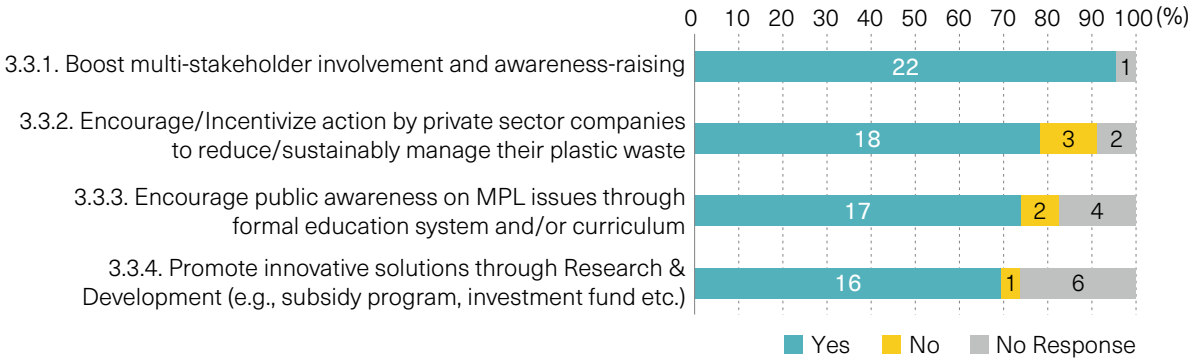


Figure 25: **Typology of actions for public engagement and private engagement undertaken by countries**

Table 8: **A list of a few examples of partnership and innovation actions reported by countries**

Country	Reported Actions
3.3.1. Boost multi-stakeholder involvement and awareness-raising	
Australia	• The Australian Packaging Covenant Organisation (APCO), as the industry scheme administrator under the co-regulatory packaging system, delivers education, guidance, tools, and events to promote sector-wide engagement, awareness, and action on sustainable packaging.
Italy	• The Ministry of Environment and Energy Security signed a protocol with FederlegnoArredo, the Alliance of the Italian Fishing Cooperatives, and Marevivo to promote the use of renewable packaging in the fish industry.
Japan	• UMIGOMI Zero: the Nippon Foundation and the Ministry of the Environment are jointly promoting "UMIGOMI Zero Week - a nationwide simultaneous clean-up activity under the slogan "Zero Marine Litter ("umigomi means marine litter in Japanese)
The Philippines	• Coalition of Solid Waste Management Providers (CSWMP) - The CSWMP is a group of private SLF operators that helps LGUs in establishing proper disposal facilities and introducing innovative solutions.
New Zealand	• The Recycling Leadership Forum was established in May 2024. The forum has an independent chair and brings together brand owners and representatives from the retail, packaging, food and grocery, recycling, and local government sectors. It provides expert advice and information to the Ministry for the Environment on improving the recyclability and recovery of packaging materials.
Singapore	• The Packaging Partnership Programme (PPP), administered by the Singapore Manufacturing Federation (SMF) in partnership with NEA since 2021, encourages private sector action on reducing plastic waste by building industry capability in sustainable packaging management.
3.3.2. Encourage/Incentivize action by private sector companies to reduce/sustainably manage their plastic waste.	
China	• Enterprises are encouraged to use integrated packaging for commodities and logistics, and establish a recycling system for recyclable logistics and distribution appliances.
Japan	• Compilation and dissemination of "Good Practices" for reducing microplastics • A collection of initiatives and technologies by Japanese companies, contributing to the prevention, reduction, and collection of microplastics. The good practices are then disseminated internationally.

Country	Reported Actions
New Zealand	• The Waste Minimisation Fund continues to offer funding for projects that divert waste from landfill. The WMF is funded from a waste disposal levy.
3.3.3. Encourage public awareness on MPL issues through the formal education system and/or curriculum	
Canada	• As part of Canada's comprehensive plan to reduce plastic waste and pollution, the Zero Plastic Waste Initiative supported innovative solutions that promoted circularity, informed sustainable behaviour, and prevented, captured, and removed plastic pollution, including microplastics. Notable examples of curriculum development and educational programmes include: the Anthropocene Educational Program, the Ocean Plastic Education Kit, the Waste Literacy Education Program, and Climate Kids online game about plastics and oceans.
France	• In 2020, the Ministry launched the "Beaches without plastic litter" campaign in partnership with local authorities. This chart is composed of 3 categories of actions, and public awareness is one of them. Raising awareness through education. Development of a marine educational area: a small coastal maritime area, managed in a participatory way by the students and teachers of an elementary school, following principles defined by a charter.
Spain	• Training programmes for fishermen, observers on board, stranding networks personnel and training for Public Administration managers. • Development and implementation of a curriculum related to the respect and protection of cetaceans, marine turtles and seabirds as well as marine litter in the ship's master's official courses (yacht and fishing).
South Africa	• Good Green Deeds programme: a nation-wide programme aimed at mobilising the public to clean local communities and raise awareness around illegal dumping and waste management. The National Consumer Awareness is a demonstration of ensuring the purchaser or buyer knows about the information about items and products so that they will be aware of how they are disposed of.
The UK	• The UK has supported the Tide Turners Plastic Challenge, an environmental education and youth empowerment programme delivered by the United Nations Environment Programme (UNEP), in partnership with organisations such as the World Organisation of the Scouts Movement (WOSM), the World Association of Girl Guides and Girl Scouts (WAGGS) and specific in-country partners.
3.3.4. Promote innovative solutions through Research &Development (e.g., subsidy program, investment fund etc.)	
Norway	• The Norwegian Retailers' Environment Fund charges members a small fee for plastic bags that is then invested in nature restoration.

3.4. Monitoring, Data Management, Understanding Flow of Plastic/MPL

3.4.1. Overall Trend

Addressing marine plastic pollution requires an understanding of the socio-economic flow of plastics within the economy, as well as their leakage into the environment. Continuous monitoring of such flows and leakage, and management of relevant data, can facilitate the identification of pollution hotspots and measuring progress against intended policy goals, and is an instrumental foundation for effective intervention. Environmental impact assessment of products throughout their lifecycle can also

contribute to the improvement of how they are designed and produced to minimize impacts. The survey specifically inquired about country actions on existing monitoring, data management, and assessment programs/activities implemented to track the flow and assess the impacts of plastics, plastic products, and waste, as well as MPL, and the challenges posed in implementing these activities.

The survey results indicate varying levels of engagement (Figure 26). Twenty countries reported conducting monitoring programs, estimation studies, or scientific studies on the leakage of macro- and micro-plastics into the environment, including those focused on the ocean surface. Twelve countries reported using LCA, and 14 countries reported using MFA. Seven countries did not respond (Figure 27).

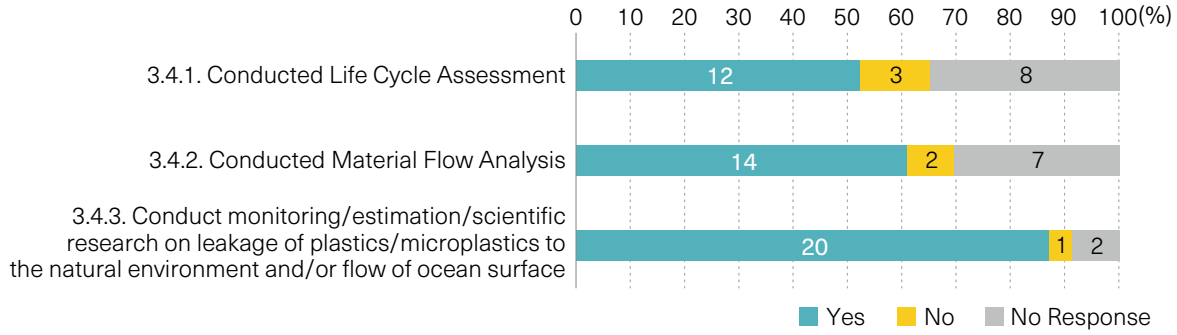


Figure 26: State of monitoring, data management, and assessment activities by countries

Of the 20 countries that responded positively to question 3.4.3, 11 countries have established monitoring or reporting mechanisms that enable continuous monitoring over time. Meanwhile, 11 countries conduct scientific research or estimation studies regularly, and 10 countries have performed these activities at least once, although the existence of a permanent mechanism is not known.

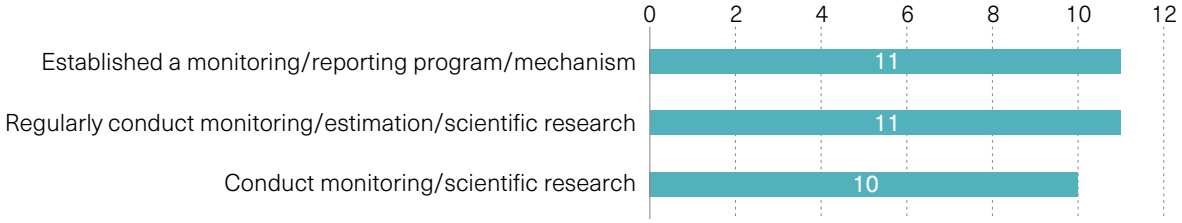


Figure 27: State of activities to understand the leakage and flow of macro/microplastics in the environment

In terms of the geographical scope of the reported activities, 13 countries reported carrying out estimation, research, and monitoring activities at the national level (Figure 28), and eight countries reported doing so at the local level. While the national government conducts many programmes, some instances are implemented by business sector entities. Four countries reported their ongoing actions at the international level and seven at the regional level, suggesting countries' engagement in international cooperation in this area.

In terms of the subject focus of the activities, namely the environment in which sampling takes place, 11 countries reported carrying out estimation, research, and monitoring activities in the ocean environment, and nine countries reported doing so across rivers, soil, and air (Figure 28). Regarding the type of materials sampled and analyzed, 10 and 11 countries conduct such activities on macro- and microplastics, respectively.

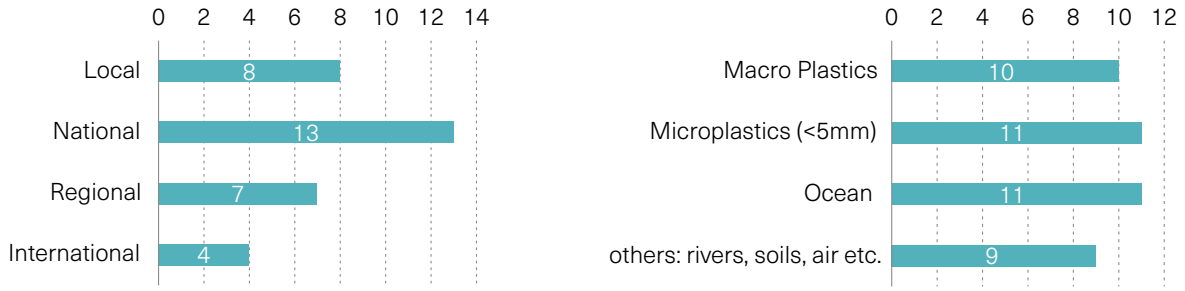


Figure 28: Geographical (left) and subject (right) focus of the activities to understand leakage and flow of macro/microplastics in the environment

Specifically, regarding LCA, six countries reported that such activities were conducted nationally, while one country reported that they were conducted at the regional and international levels. For MFA, seven countries mentioned that such activities were conducted nationally, and two reported that they were conducted regionally.

3.4.2. Challenges in conducting monitoring activities

The survey also inquired about the challenges in conducting, or in some cases, preventing countries from conducting, monitoring activities. Responses to the survey's general inquiry on challenges (Chapter 4 – "Data collection related to MPL") are also considered to provide a clearer picture.

Limitations/lack of financial resources, implementation capacity, and specialized analytical instruments are reported as major obstacles for conducting continuous monitoring activities. For instance, Türkiye reports resource limitations in conducting in situ monitoring covering multiple sources and an extensive coastline. The Philippines reports limited access to equipment for characterization of microplastics (such as Raman and Fourier-Transform Infrared (FTIR) spectrometers.

Where studies are conducted, the availability of reliable data (EU, Japan, Myanmar, Netherlands, Türkiye, South Africa) and data comparability due to unharmonized methodologies (Canada, Germany, Japan, South Africa) are frequently reported. Identification of the sources (Canada) and modelling pathways (Netherlands, New Zealand) of plastics when degraded/fragmented (Türkiye), difficulty in producing accurate and consistent analysis due to changing physical conditions under which sampling takes place (Türkiye), existence of competing/overlapping/inconsistent data from multiple sources (Philippines, South Africa, Thailand) are also reported.

Several international initiatives addressing this issue have also been reported, for instance, through the EU-TG on Marine Litter, OSPAR, and HELCOM (reported by Germany), as well as *the Atlas of Ocean Microplastics (AOMI)* and relevant technical guidelines for monitoring in different contexts and technical settings (reported by Japan). At the national level, the Philippines is currently developing a "National Research Framework and Programme for the Monitoring and Assessment of Marine Litter (NRFP-ML)" to harmonise monitoring and assessment methodologies.

Technical difficulties persist in some areas, while efforts to develop solutions are also underway. The Netherlands reports difficulty in monitoring seafloor litter, while also investigating the use of litter data from fisheries. The application of novel technologies, such as video (the Netherlands), AI (the Netherlands and UK), and drones (Japan and UK), is emerging to increase efficiency and coverage in monitoring activities. Japan has developed guidelines for Harmonizing Marine Litter Monitoring Methods Using Remote Sensing Technologies to ensure data comparability globally.

For LCA, Germany reports that data and methods are not available at the lifecycle inventory level, and there is a lack of robust characterization models, as currently existing models only address the effects of plastic emissions in aquatic ecosystems to a minimal extent.

For the monitoring of the implementation of existing law, Canada reports low compliance with reporting lost gear under its Fishing Gear Reporting System (FGRS).

Table 9: A list of actions for monitoring, data management, and other activities implemented for understanding the flow of plastics by countries[4]

Country	Reported Actions
3.4.1. Life Cycle Assessment	
Australia	• LCA conducted by states and territories for selected plastic products and considered for regulatory action.
France	• ADEME reference framework, published in 2022, proposes a "qualitative" method for assessing the risks of packaging waste leaks into the environment and the potential negative effects on ecosystems.
Germany	• Investigation of the environmental impact of packaging made from biodegradable plastics (UBA-Texte 52/2012) • Evaluation of the environmental impact of take-away beverage cups and possible measures to reduce the consumption (UBA-Texte 29/2019) • Review of the effectiveness of Article 21 VerpackG (Packaging Act) and development of proposals for further legal developments
	Challenges: Data and methods not available at the lifecycle inventory level. Lack of robust characterization models, where currently existing models only deal with the effects of plastic emissions in aquatic ecosystems to a very limited extent.
Japan	• LCA widely used to assess plastic products in the business sector. • LCA Evaluation of Industrial Plastic Waste released by Japan Initiative for Marine Environment (JaIME).
The Netherlands	• LCA for plastic products is executed only at a specific time to inform policy.
	Challenges: Standardization of methodologies across countries
New Zealand	• LCA conducted in collaboration with Western Australia (state) for takeaway containers, hot & cold cups, bin liners, produce bags, and agricultural films
Norway	• LCA commonly implemented for certain products as a private sector initiative, but not by public authorities. • The Norwegian EPD Foundation established by the private sector.
The Philippines	• LCA on several plastic products, such as plastic cutlery, sachets conducted by the National Solid Waste Management Commission in coordination with DOST.
Singapore	• LCA on carrier bags and food packaging released by NEA (2018).
South Africa	• LCSA conducted as part of a project funded by Japan and UNIDO to determine the material substitution potential of identified products.
3.4.2. Conducted Material Flow Analysis	
Australia	• The annual Australian Plastic Flows and Fates reporting shows Australia's plastic consumption, flow, recovery, and recycling.

4 The list includes major activities for determining the leakage of macro/microplastics based on the country responses, while not exhaustive of all the actions reported nor includes detailed findings of each study reported.

Country	Reported Actions
Canada	• The Federal Plastics Registry to produce an inventory of data to enable Material Flow Analysis on plastics from resin production to end of life. • Statistics Canada maintains a Physical Flow Account for Plastic Material (PFAPM), an environmental-economic account that estimates the flow of plastic through the Canadian economy and provides annual estimates by product category, resin type, and province and territory, covering 2012–2021.
China	• *Plastic Environmental Footprint in China (2020)* issued by the Beijing Institute of Petrochemical Technology examines the plastic material flow in China and analyzes the environmental impact throughout the whole life-cycle of plastic products, encompassing their energy footprint, carbon footprint, and water footprint. Based on this analysis, the report proposes targets, roadmaps, safeguard measures, and anticipated benefits aimed at reducing plastic consumption ("plastic control") during the 14th Five-Year Plan period.
The EU	• Studies on the mass flow analysis model for the plastics value chain conducted.[5,6] • "From source to sea — The untold story of marine litter report— European Environment Agency" provides a comprehensive and holistic assessment of the drivers, sources, pathways, and impacts of marine litter, particularly focusing on plastic pollution. MFA employed to track plastic production, consumption and disposal, focusing on plastic packaging and small non-packaging items (PPSI). **Challenges:** uncertainties in plastic waste data
Germany	• MFA on emissions from (1) plastic waste littering and (2) plastic products and plastic-containing products for intended use in the environment.
Japan	• Material Flow Diagram annually compiled/published by Plastic Waste Management Institute (an association of plastic industries).
Mauritius	• "Implementing Sustainable Low and non-Chemical Development in SIDS (ISLANDS)" Project initiated in February 2025 comprises a supply chain analysis of imported plastic pellets, will enable the creation of a database of the types of plastic pellets imported and products that are manufactured from these pellets, and will serve policy-making. **Challenges:** Data gap
The Netherlands	• Government-commissioned studies on plastic material flows within the Circular Plastics NL (national growth fund project). • Initiatives to further improve/structure MFAs for plastics.
New Zealand	• Making Hero the Zero - A roadmap towards sustainable plastics use in New Zealand (2021) • Resource use and waste generation in Aotearoa New Zealand (2025) **Challenges:** Inadequate understanding of the flow of plastics in the NZ economy, resulting in difficulty in creating targeted and impactful policy interventions.
Norway	• *Plastics account for Norway*, issued by Statistics Norway. • A dynamic probabilistic economy-wide MFA conducted by NILU on seven plastic polymers (HDPE, LDPE, PP, PS, PVC, EPS, and PET).
The Philippines	• Waste flow and mass balance conducted in 2019 for a study on Short-Lived Climate Pollutants in the waste Sector, supported by the Institute for Global Environmental Strategies (IGES) **Challenges:** Data availability and reliability, limited technical capacity, absence of material flow data from the informal waste sector, e-commerce and small-scale enterprise, geographic and logistical barriers, funding and resource Constraints.

5 Modelling plastic flows in the European Union value chain
6 Modelling plastic product flows and recycling in the EU

Country	Reported Actions
South Africa	MFA on plastics conducted in 2017.
3.4.3. Monitoring, estimation, scientific research on leakage of macro-/microplastics to the natural environment and/or their flow on the ocean surface	
Canada	• Fishing Gear Reporting System (FGRS) -an application for harvesters to report lost and retrieved fishing gear developed by Fisheries and Oceans Canada. • Canada's Plastic Science Agenda (CaPSA) and The Canada-wide Action Plan for Zero Plastic Waste identify priority research areas, including plastics in the environment, while over CAD 10 mil. has been invested to address priority research gaps and support solutions across the plastics value chain. • Canada's PFAPM and Federal Plastics Registry (see 3.4.2 above) also estimate the plastics leakage. • Research and monitoring on litter and microplastics through the Arctic Monitoring and Assessment Programme.
	Challenges: low compliance with the reporting of lost gear despite improvements
China	• Annual monitoring of macro-plastics (beach litter, floating litter on the sea surface, and submarine litter) has been conducted since 2007, and monitoring of microplastics conducted since 2016 under its national monitoring system. The results are published through *the Bulletin of Marine Ecological and Environmental Status of China*. • National Key Research and Development Program (NKRDP) initiated by the Ministry of Science and Technology (MOST) includes a research project which focuses on investing the land-river-air-sea transmission processes, migration mechanisms and ecological effects of microplastics. • Monitoring and investigation of marine plastic litter and microplastics have been conducted as a part of *the Plastic Pollution Control Action Plan (2021–2025).*
The EU	• ETC HE Report 2024/15: Microplastic releases in the European Union examines trends in key sources of microplastics, including tyre abrasion, plastic pellets, paints, and textiles, and provides analyses covering 2016–2022.
	Challenges: the absence of regular plastic releases monitoring data creates uncertainties in the estimations.
Germany	• Mature monitoring protocols available for macro litter, including plastics in the marine compartments, beach, water column, and seafloor (MSFD D10C1), and indicator species defined for ingestion and entanglement (MSFD D10C3 and C4).
	Challenge: Unharmonized monitoring and assessment approaches on micro litter in the different marine compartments pose a comparability challenge. DE currently involved in EU-TG, OSPAR, and HELCOM on this issue.
Italy	• Marine Strategy Framework Directive Article 11 Monitoring Programmes Indicators: beach litter, floating litter, riverine inputs of litter entering the sea, seafloor litter, microliter, marine litter ingested by *Caretta caretta*.
Japan	• Atlas of Ocean Microplastics (AOMI) - a global database of monitoring and observation data on ocean microplastics launched in May 2024. The data includes microplastic particle density results and organised according to "*Guidelines for Harmonizing Ocean Surface Microplastic Monitoring Methods*" to allow for comparability and deeper analysis. • *The Guidelines for Harmonizing Marine Litter Monitoring Methods Using Remote Sensing Technologie*s developed in 2025. • Promotion of research on (1) the state and impact of microplastics on living organisms and ecosystems, (2) leakage to the ocean, and (3) countermeasures for reducing leakages. • Investigation and estimation of domestically-generated amounts and routes, as well as an investigation into floating plastics.

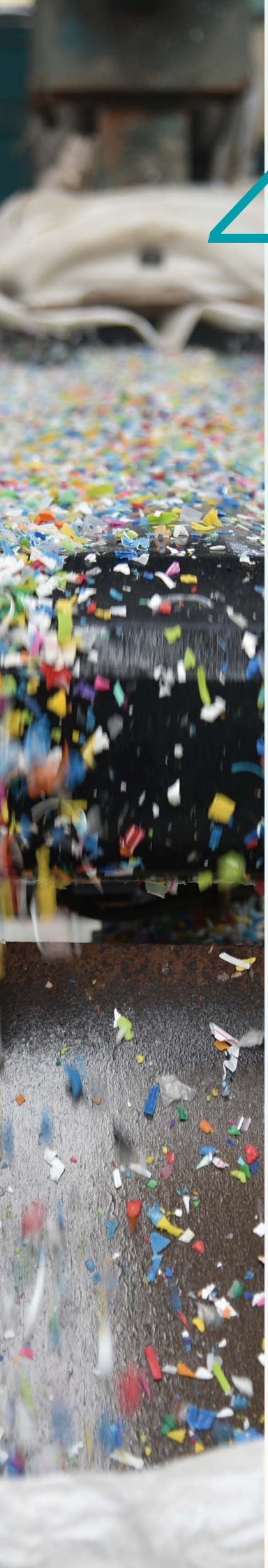
Country	Reported Actions
Mexico	• A project for the development of tools for the collection, processing, and modelling of plastic leakage using Waste Flow Diagram under formulation by the National Institute of Ecology and Climate Change (INECC) in collaboration with the GIZ.
	Challenges: Development of plastic waste reduction strategies
Myanmar	• *L.Buhl-Mortensen et al.,2022*[7]
The Netherlands	• Monitoring programme on macro-and microplastics in rivers • Development of a monitoring programme for meso-pellets on beaches and microplastics in the sediment in the North Sea • A project to monitor river litter employing advanced technologies, including AI initiated.
New Zealand	• NZD 12.5 mil. allocated for study on the impact of microplastics in 2022.
Norway	• The first monitoring program, Microplastics in Norwegiah coastal areas, rivers, lakes and air (MIKRONOR) issued in 2021 by NEA. Samples include those from the sea surface, water column, wastewater effluent, urban runoff, and marine and freshwater sediments.
The Philippines	• Harmonized manual being tested and finalised to establish baseline.
	Challenges: Manpower and funding, harmonisation of different government/ institutional initiatives, limited access to equipment for characterization of microplastics (specialized analytical instruments such as Raman and Fourier-Transform Infrared (FTIR) spectrometers.
The Republic of Korea	• By reorganizing beach debris monitoring efforts (2008–2023), a model is being established that can predict marine debris quantities based on estimation models. The model is expected to be used widely.
	Challenges: Potential impact on the design/effectiveness of policymaking.
Singapore	• Citizen-science research conducted on marine debris on shores by the National Parks Board and the National University of Singapore. • Study on macro-/microplastics in inland and coastal waters by NEA.
South Africa	• National leakage monitoring in coastal and other environments conducted by the South African Plastics Network, led by the Ocean's & Coasts (OC) Research, DFFE. Produced data filter into the OC Marine and Information Management System (MIMS). OC Research and MIMS to act as a hub for the inter-regional monitoring project, also providing data sampled on surface water and beach sand.
	Challenges: Generation of comparable data due to unharmonized methods.
Spain	• *Marine Litter Monitoring Strategy*
Thailand	• Microplastics leakage monitoring conducted in the marine environment. Macro debris monitoring also conducted.
Türkiye	• Developed a monitoring strategy, "Integrated Marine Pollution Monitoring Programme (DEN-IZ)". Monitored indicators/parameters: microplastics and macro litter • Pilot-scale marine litter monitoring surveys under the Turkish National Monitoring Programme conducted at local and national levels, tracking diverse matrices.
	Challenges: Difficulty in producing accurate and consistent analysis due to changing physical conditions under which sampling takes place (weather, current, waves), as well as continuous degradation of seabed litter into meso and microplastics. Resource limitation in conducting in situ monitoring covering multiple sources and an extensive coastline.

7 Buhl-Mortensen, Lene, R. Houssa, W. R. W. M. A. P. Weerakoon, P. Kainge, M. N. Olsen, S. Faye, M. M. Wagne, S. Myo Thwe, G. Cudjoe Voado and Bjørn Einar Grøsvik. "Litter on the seafloor along the African coast and in the Bay of Bengal based on trawl bycatches from 2011 to 2020." Marine Pollution Bulletin 184 (2022): 114094.

Country	Reported Actions
The UK	• Investigations on microplastics in wastewater implemented through collaboration between the Environment Agency works with water companies as part of the Water Industry National Environment Programme, initiated in 2020 with the Chemical Investigations Programme Phase 3. Six investigations are planned between now and 2027. • Monitoring for the UK Marine Strategy, OSPER, and Environmental Improvement. Monitored indicators/parameters: seafloor litter bycatch, beach litter, stranded fulmar seabirds. • Research: (1) Defra-commissioned research on the scale of marine litter from aquaculture; (2) Evidence review on defining and evaluating the pathways of terrestrial litter to the marine environment; (3) The future of seafloor litter monitoring; (4) Application of AI and drones to enhance UK national beach litter monitoring • Currently funded relevant UK government research: (1) Bio-Plastic-Risk – Investigation of biodegradable plastics as an environmental pollutant in terrestrial and marine environments; (2) Tyre-Loss – Investigation into the prevalence and impact of tyre-wear particles in the marine environment; (3) MINIMISE – Current and future effects of microplastics on marine ecosystems. • Review research by National Highways on potential sources of microplastics from highways, such as Tyre Particulate Wear (Phase 1, Phase 2) • Monitoring of surface litter in the Greater North Sea informing OSPER.

Section B

Challenges, International Cooperation, and Best Practices



4

Challenges

The country survey inquired about their perception of challenges in addressing the issue of MPL, using multiple-choice and open-ended questions to gather detailed descriptions of the selected options.

As previous years, *Recycling system improvement* (15), *Data collection related to general waste* (13) and *Data collection related to plastic litter* (13) ranked higher among the 17 responding countries followed by *Proper waste management system* (10), *lack of financial incentives for waste treatment in general* (8) and *for technology development* (8) respectively (Figure 29).

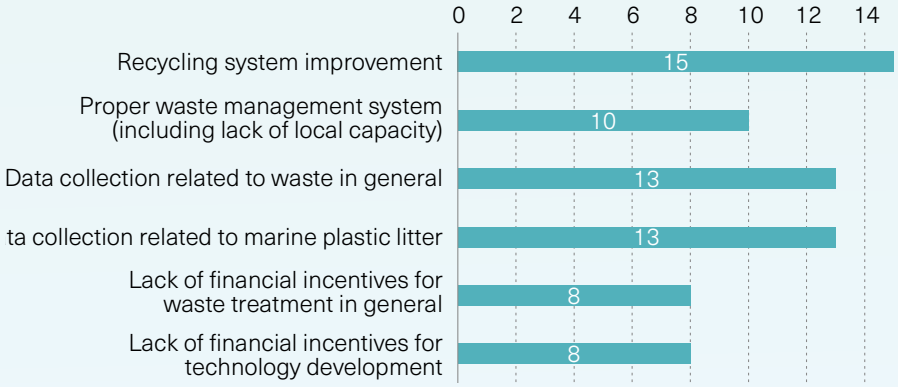


Figure 29: Challenges faced by countries

The details of specific challenges reported are summarized below. While the challenges need to be understood in their unique geographical, socio-economic, and legal contexts within each country, they can be clustered into several key issues as follows.

Recycling System Improvements

The majority of countries reported a lack of recycling technology and/or infrastructure, as well as **insufficient recycling capacity**.

Australia reported limited recycling capacity for hard-to-recycle materials and those with insufficient disposal volumes to justify investment in reprocessing. In Canada, the reprocessing sector is well established for packaging materials made from high-density polyethylene (HDPE) and polyethylene terephthalate (PET). Still, capacity is limited for other types of plastic materials.

Technical and social challenges that hamper recycling are also reported in this connection. Canada and Thailand both raise **product design** (of low recyclability) and **contamination rate**, **low collection rates,** as significant issues that reduce the recycling rate (Canada, Thailand, Mexico, and New Zealand).

Flexible plastics, composite plastics, and dark and opaque plastics are difficult to sort and reprocess (Canada). Plastic products not designed for recyclability, such as those with difficult-to-remove labels and adhesives, can result in contamination, which reduces the recycling rate (New Zealand). Lack of education, awareness, and participation of waste emitters (in many instances, residents) to source segregation poses challenges (Canada, Peru, Mauritius, Myanmar), which can result in increased contamination in the waste stream for recycling.

The market for recycled plastics continues to be a challenge, with the high cost of recycling operations on one hand and market fragmentation, unstable price behaviour (and often low prices) of virgin raw materials, and slow market penetration of secondary raw materials (Spain, the Netherlands, and Thailand). The issue is more pronounced for island countries such as Mauritius where access to market for recycled products is limited due to geographical condition. In addition, the majority of the companies in the plastics sector are SMEs, and there are gaps in their ability to manage and harness innovation to transform production and business processes into circular models (Spain).

Proper Waste Management System

Insufficient service/infrastructure coverage for collection (Peru, The Philippines, Mauritius, Myanmar, South Africa), **separation** (Myanmar, New Zealand), and **disposal** (Myanmar) are among the most commonly reported challenges. Canada reports an insufficient waste management system in Northern and remote areas, which disproportionately affects Indigenous populations, equity-seeking groups, and low-income groups. In contrast, South Africa reports that the issue is more pronounced in major cities, where a rapidly growing population is resulting in a dramatic increase in waste. Mauritius reports the need to strengthen legal framework and develop capacity at local and central levels.

On specific issues, Canada reports a lack of recycling facilities for **ALDFG**, while Mexico reports a lack of uniform implementation of **the plastic ban**. With waste collection responsibilities to municipalities, this indicates a lack of **standardization and direction** for effective collection operations.

Data Collection (waste in general and MPL)

Unavailability of financial resources (Myanmar, Peru), **inadequate implementation capacity** (Peru), and **lack of enforcement of reporting obligations** (Mauritius) are resulting in **a lack of consistent and reliable waste data**, posing challenges for establishing a basis for monitoring and evaluation at national and subnational levels. China reports the need to increase the number of monitoring points and strengthen the technical support for coastal cities.

Where data are collected, **differences in formats and parameters** employed among different subnational governments charged with reporting obligations (Australia) and agencies (New Zealand) are creating “data silos”, posing issues of comparability and consistency and hindering communication, collaboration, and decision-making (South Africa). In the Netherlands, waste data reported by

collectors, sorters, recyclers, and producer organisations are not always transparent due to the lack of reporting obligations. Such a **lack of transparency from vendors** is also reported in South Africa. In Australia, data sharing is limited due to **confidentiality**, preventing aggregation at the national level.

In the waste trade, the **absence of standardized mechanisms and methodologies for characterizing waste is also resulting in a** lack of clear and consistent information (Canada).

Similar challenges are also reported for "Data Collection on MPL" through the survey and are summarized in Chapter 3.4.2. above.

Lack of Financial Incentives for Waste Treatment in General and for Technology Development

Financial incentive mechanisms such as Extended Producer Responsibility (EPR), recycling quotas, and targets are examples of policy tools that can promote waste treatment and recycling in general. However, policy design and implementation are not always successful. In Germany, a perceived **lack of financial incentives to consumers** is resulting in mixed residual waste (contamination) in separated waste streams under the current EPR scheme, where consumers must pay a fee on mixed municipal waste but not for the materials subject to EPR schemes (such as lightweight packaging). In Peru, although the legal framework for solid waste includes financial incentives for citizens, such as discounts on municipal taxes to promote segregation and proper waste management, their **implementation by local governments** remains limited.

Some reported on the lack of financial incentives for promoting investment in waste management and recycling infrastructure. **The lack of tipping fees is making infrastructure projects unprofitable and less attractive to** investors. At the same time, public funding, subsidies, and financial instruments such as grants and loans are also limited for developing waste management technologies and supporting innovation in the waste sector in Myanmar. South Africa recognizes the potential need for a **dedicated national fund for waste management infrastructure** that can be accessed by municipalities, stressing that such a mechanism should ideally have eligibility conditions attached to encourage waste management reforms by the municipalities.

Some reported on investment in technology development and innovation in the waste sector. Mexico and Peru both reported **limited funding mechanisms** for innovation: technology development and pilot projects. Canada reported a lack of funding to promote technology development related to preventing and reducing the effects of ghost gear, while it is also addressing this gap through funding technology innovation projects and organizing an international conference to discuss innovative fishing gear. France also plans to fund EUR 300 mil. to the plastic recycling industry under its strategy France 2030.

5

International Collaboration by Countries

All 20 countries are involved in international cooperation through international organisations, multilateral groups, and policy processes, while 15 countries also reported implementing international cooperation programmes and initiatives in particular regions (Figure 30).

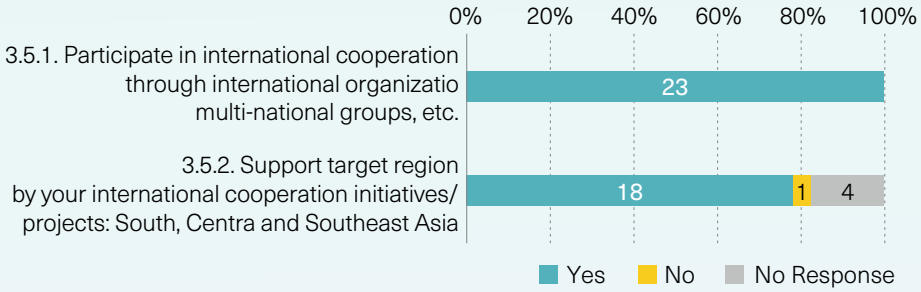


Figure 30: Engagement in multilateral policy processes and technical cooperation

Since many of these organisations, processes, and initiatives were reported by only a few countries but are considered to be participated in by a larger number of countries, the reported country responses were supplemented with the list of participating countries available on their website (Table 10). Further categorisation and analysis of the country responses revealed that countries are engaged in a broader range of initiatives and policy platforms/processes than in past years, suggesting a strong interest among countries to address the MPL issue through international collaboration/cooperation.

In terms of international cooperation initiatives/projects by region, South-East Asia continues to attract the most support, followed by South Asia, Oceania, Latin America, and the Caribbean. The Middle East and North Africa, as well as Central Asia, received less support. Despite the absence of a dedicated option in the original survey design, activities were also reported for the North American region (Figure 31).

Of the 20 contributing countries, Canada, Germany, Japan, and Norway stand out in terms of the regional coverage of their international cooperation activities. In addition to these “global donors”, “regional donors” that are often in close geo-political and/or historical proximity with particular regions, for instance, Australia and New Zealand in Oceania; Canada and Mexico in North

America; Singapore, Thailand and Japan in Southeast Asia; and the Netherlands in Latin America and Caribbean (Dutch Caribbean) also play instrumental role in advancing international cooperation at the regional level.

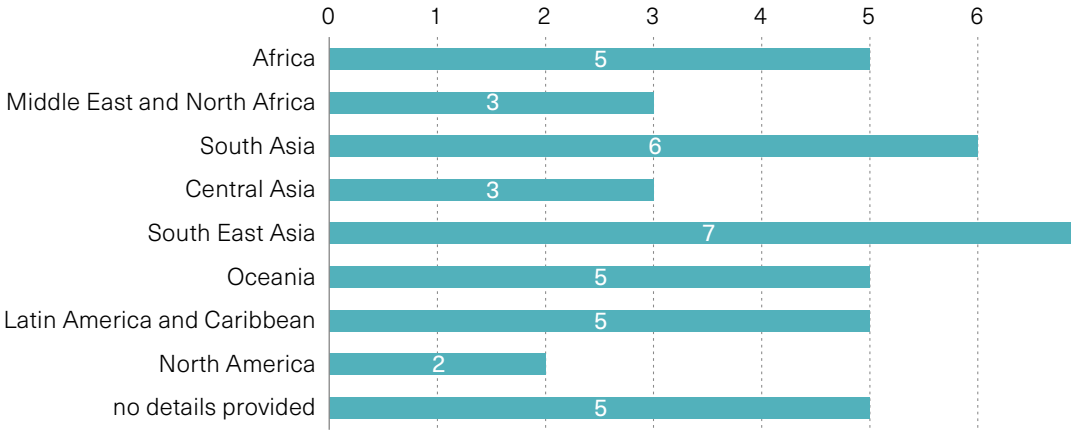


Figure 31: Regional focus of international cooperation

5.1. Global Policy Processes, Cooperation Mechanisms, and Legal Instruments

Many countries reported participation, compliance, and active engagement with existing multilateral environmental agreements, political forums, policy processes/platforms, scientific platforms, multi-stakeholder partnerships, and coalitions that encompass the control and protection of the environment from plastics.

The international cooperation activities reported by countries and the number of countries participating in each activity are illustrated in Table 10: List of international cooperation activities reported by countries (global) and Figure 32, respectively. These activities are global in their scope and are classified into five categories: (1) MEAs, (2) policy processes, (3) Multilateral Development Agencies, Banks, Funds, and financial initiatives, (4) Scientific/knowledge-sharing platforms and assessments, and (5) partnerships and coalitions.

While only a few countries reported each activity, supplementary information from the relevant websites revealed broader participation in countries. For instance, all of MEAs such as MARPOL Treaty, Basel Convention, and Convention of Biological Diversity (CBD); some of the policy processes such as UNEA and the ongoing treaty negotiation under INC; a multilateral trust fund "PROBLUE"; as well as UN World Ocean Assessment are only reported by a few countries but are indeed participated in by far many. In addition, while not captured in the present report, open knowledge platforms such as UNEP-GPML, as well as MDAs and MDBs, are also considered to contribute a greater number of beneficiaries through their services.

Compliance and national implementation of MEAs as engagement with global policy processes was reported by several countries, each of which are in fact also participated by the majority of the countries contributing to the report. Thailand reported on its engagement with the MARPOL Convention Annex V, which regulates the discharge of waste from ships into the sea, including all forms of plastic, requiring all ships to use shore-based reception facilities. Mexico regulates transboundary movements of plastic waste through the Agreement aligned with the Basel Convention. Similarly, the UNEP Ad-Hoc Open-Ended Expert Group on Marine Litter and Microplastics, the ongoing INC process, and the United Nations Environmental Assembly were reported.

Countries are participating in initiatives and projects led by multilateral development agencies (MDAs) and multilateral development banks (MDBs), such as the UNEP, World Bank, Global Environment Facility (GEF), and International Maritime Organization (IMO). The difference among countries in the mode of engagement should be noted: Mexico and Peru reports involvement to UNEP, the World Bank and the GEF as a partners/beneficiaries of their initiatives and projects, while Japan provides support to UNEP through diverse channels including hosting UNEP International Environmental Technology Centre (UNEP-IETC), contributing to UNEP's capacity development projects for plastic pollution management in Asia and the Pacific and collaborating on a technical support project in African region towards development of EPR scheme in food and beverage sectors. Similarly, for IMO, the UE reports on its role in the multilateral legislative process through IMO towards stronger regulations on fishing gear marking and retrieval, and enhanced measures against ghost gear and global reporting requirements for finances. In contrast, Thailand reports engagement in the projects under IMO's OceanLitter Programme (GoLitter and RegLitter projects).

Engagement with scientific/knowledge-sharing platforms, as well as global environmental assessments, is also reported. Canada, the EU, and the UK are supporting the UNEP Global Platform on Plastic Pollution and Marine Litter (UNEP-GPML) in the development of a global monitoring system for plastic and marine litter. Additionally, the EU is supporting the Integrated Marine Debris Observing System (IMDOS). France and Italy are contributing to Working Group 43 of the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), which aims to build a broader understanding of sea-based sources of marine litter, in particular, from the marine transport and fisheries sectors.

Voluntary, multi-stakeholder partnerships and coalitions are also widely participated in by countries. UN Clean Seas Campaign (reported by Canada) is participated in by 13 out of 23 countries participating in the present survey, whereas nine countries are engaged in the Global Ghost Gear Initiative. A sector-specific private initiative was also reported. The Global Tourism Plastics Initiative (tourism) is joined by over 250 leading tourism operators, suppliers, associations, and NGOs, encouraging them to set ambitious commitments to phase out single-use plastics and enhance circularity in their businesses, and promotes the disclosure of progress.

Table 10: List of international cooperation activities reported by countries (global)

Name of International Cooperation	Supplementary Information on Participating Countries
Multilateral Environmental Agreements and Policy Objectives	
UN SDGs	
MARPOL Treaty	Link
Basel Convention	Link
Convention on Biological Diversity	Link
Policy Process	
Intergovernmental Negotiating Committee on Plastic Pollution (include. Ad-Hoc Open Ended Expert Group on Marine Litter and Microplastics)	Link
UN Environmental Assembly (UNEA)	Link
High-Level Panel for a Sustainable Ocean Economy	Link
Multilateral Development Agencies, Banks, Funds and financial initiatives	
UN Environment Programme (UNEP)	
World Bank (WB)	
Global Environment Facility (GEF)	

International Maritime Organization (IMO: Ocean Litter Program including GoLitter Partnerships, RegLitter, PRO-SEAS Projects)	Link
International Union for Conservation of Nature (IUCN)	-
PROBLUE	Link
Clean Oceans Initiative	Link
Circularity Exchange Network	-
Scientific/knowledge-sharing Platforms and Assessments	
UNEP Global Partnership on Plastic Pollution and Marine Litter (GPML)	-
Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP WG43)	Link
The Integrated Marine Debris Observing System (IMDOS)	-
UN World Ocean Assessment	Link
Partnerships and Coalitions	
UN Clean Seas Campaign	Link
World Economic Forum - Global Plastic Action Partnership (WEF-GPAP)	Link
Global Ghost Gear Initiative (GGGI)	Link
Global Tourism Plastics Initiative	

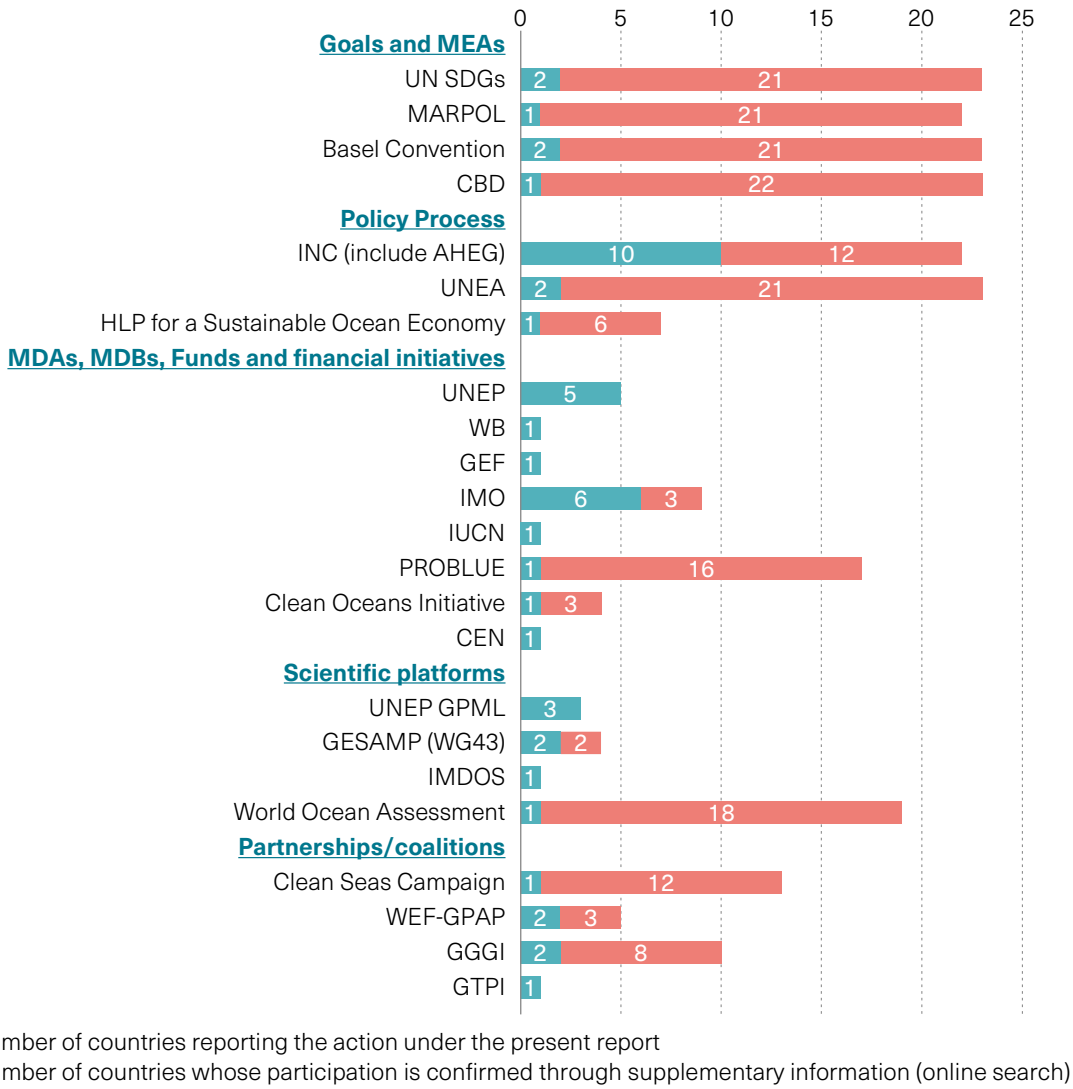


Figure 32: Countries' participation in international cooperation activities (global)

5.2. Regional Policy Processes, Cooperation Mechanisms, and Legal Instruments

Regional MEAs, political forums, policy processes/platforms, and cooperation mechanisms are also reported by many countries.

In the East Asia region, Tripartite Meeting of Ministers of the Environment of China, Japan and the Republic of Korea (TEMM) has served as a political forum to promote regional environmental management since 1999, while Northwest Pacific Action Plan (NOWPAP) also provided a regional cooperation mechanism to advance "the wise use, development and management of the coastal and marine environment" in the region. In the ASEAN region, the ASEAN Working Group on Coastal and Marine Environment (AWGCME) functions as a consultative forum for sustainably managing coastal and marine environments in the area (reported by Myanmar, Philippines, and Singapore). In the Pacific region, the Secretariat of the Pacific Regional Environment Programme (SPREP), as an intergovernmental body established by the governments and administrations, promotes regional cooperation and implements regional projects such as the Pacific Ocean Litter Project (POLP), which aims for the reduction of single-use plastics (reported by Australia).

In North America, governments of Canada, Mexico and the United States have incorporated a commitment to take measures to prevent and reduce marine debris in the Environment Chapter of the T-MEC (Tratado entre México, Estados Unidos y Canadá / English: The United States-Mexico-Canada Agreement (USMCA)), a regional trilateral trade agreement, while also promoting cooperation under the Commission for Environmental Cooperation (CEC) and implement projects such as "Reducing Marine Litter Through Local Action[8]" (reported by Mexico). Mexico and Peru are both participating in the projects implemented by the Inter-American Development Bank.

In the European region, countries reported EU-led initiatives and mechanisms, including the Marine Strategy Framework Directive and the Technical Working Group on Marine Litter set up under its Common Implementation Strategy. This group serves as a forum for information exchange, discussion, and guidance, advising on policy frameworks. MEAs such as the Barcelona Convention and OSPAR Convention are also reported by a few but participated in by many.

The G7 Ocean Plastic Charter, reported by Norway, was led in 2018 by the then-G7 Presidency, Canada, and garnered political commitments from governments, the private sector, and institutions beyond G7 members, including many countries participating in the present report. Countries in the Arctic region are also addressing marine litter through the implementation of the Regional Action Plan on Marine Litter under the Arctic Council (reported by the Netherlands).

8 The project was jointly implemented by the Environment and Climate Change Canada (ECCC), Mexico's Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT), and the U.S Environmental Protection Agency (EPA).

Table 11: List of international cooperation activities reported by countries (regional)

Name of International Cooperation	Supplementary Information on Participating Countries
Asia-Pacific	
Asia-Pacific Economic Cooperation - Oceans and Fisheries Working Group (APEC-OFWG)	Link
Tripartite Meeting of Ministers of the Environment of China, Japan and the Republic of Korea (TEMM)	-
Northwest Pacific Action Plan (NOWPAP)	Link
Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)	Link
ASEAN Working Group on Coastal and Marine Environment (AWGCME)	Link
Economic Research Institute for ASEAN and East Asia - Regional Knowledge Centre for Marine Plastic Debris (ERIA-RKCMPD)	Link
Coordinating Body on the Seas of East Asia (COBSEA)	Link
Secretariat of the Pacific Regional Environment Programme (SPREP)	Link
Americas	
Commission for Environmental Cooperation (CEC) of North America	Link
Joint Declaration on Americas for the Protection of the Ocean (Summit of the Americas, June 2022)	Link
Tratado entre México, Estados Unidos y Canadá (T-MEC)/ the United States–Mexico–Canada Agreement (USMCA)	Canada website Mexico website The US website
Inter-American Development Bank (IADB)	Link
Europe	
The Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention)	Link
Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention)	Link
EU Marine Strategy Framework Directive (MSFD) Working Group	Link
EU Technical Group on Marine Litter (TGML)	Link
EC Joint Research Center (JRC)	Link
European Plastic Pact	Link
Other Regions / Groups	
G7 Ocean Plastics Charter	Link
Arctic Council	Link

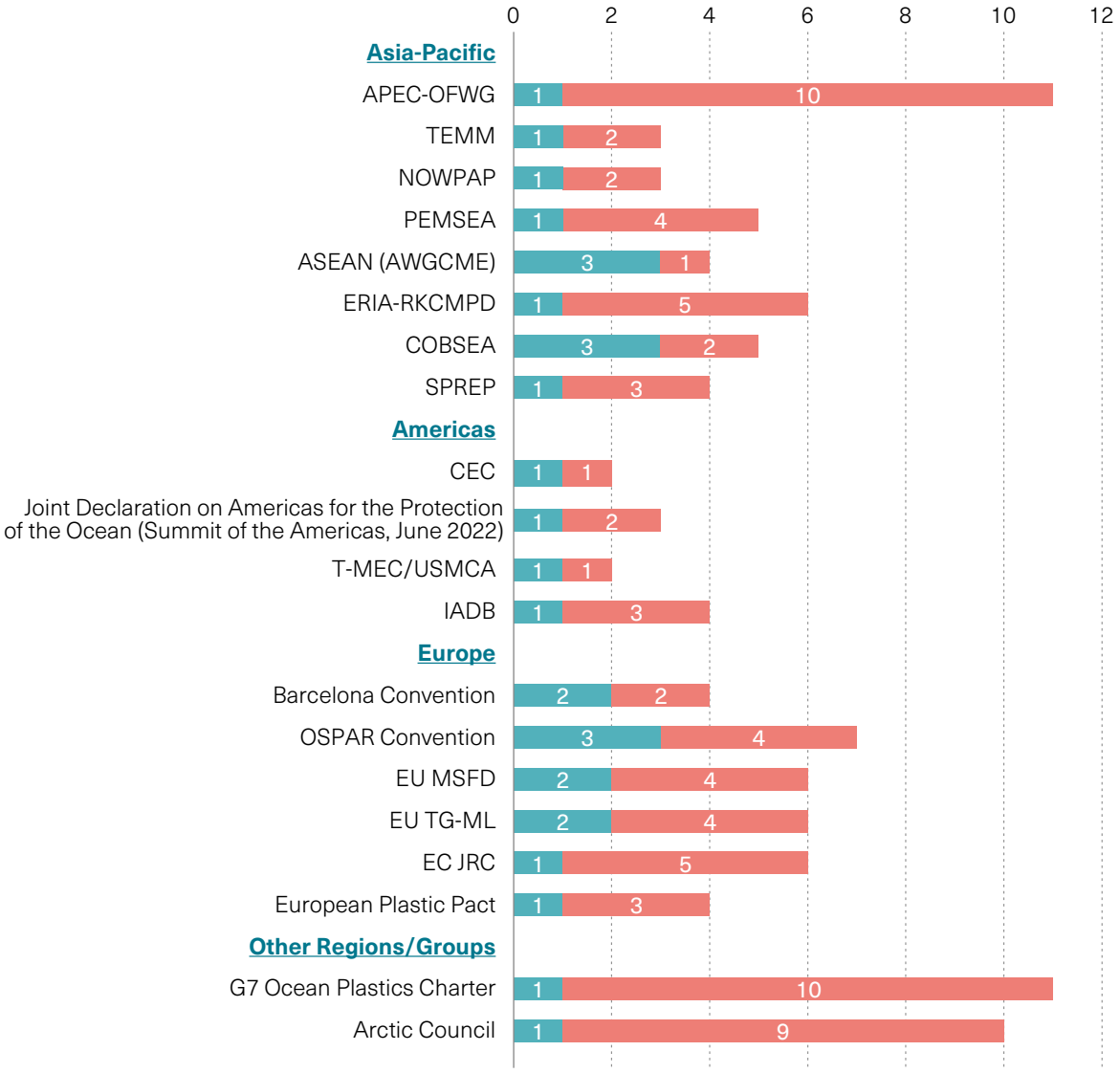


Figure 33: **Countries' participation in international cooperation activities (regional)**

6

Actions and Initiatives by International Organisations and NGOs

This section summarizes the responses received from international organizations in an attempt to map some of the ongoing global efforts aimed at assisting diverse actors in combating MPL pollution across different regions and governance layers. For the 2025 report, nine international organisations submitted information, which is listed below.

- Secretariat of the Basel, Rotterdam and Stockholm Conventions (BRS Secretariat)
- Economic Research Institute for ASEAN and East Asia (ERIA)
- Food and Agriculture Organisation (FAO)
- Global Environment Facility (GEF)
- International Atomic Energy Agency (IAEA)
- Organisation for Economic Co-operation and Development (OECD)
- United Nations Human Settlements Programme (UN-HABITAT)
- United Nations Industrial Development Organisation (UNIDO)
- World Economic Forum - Global Plastic Action Partnership (WEF-GPAP)

Distributed survey inquired strategic focus (geographical focus, partners of focus, approach, thematic focus) – that guides their institution-wide operation on MPL as well as specific programmes and projects that address MPL. Respondents are also asked to choose applicable categorical options that characterise each programme/project based on the same classification scheme as the strategic focus (e.g., geographical focus, partners, etc.). The results are summarised below.

Overall

Information on the strategic focus of the nine IOs and 44 activities (programmes, projects, initiatives, and knowledge products: see Annex III) was reported.

IOs are delivering diverse support programs and projects on MPL, waste management, and the circular economy, based on their unique institutional set-up and mandate. In many instances, these activities serve as pillars of wider operational strategies or sector-specific programs.

For instance, FAO's efforts to promote the sustainable use of plastics in agriculture and address sea-based sources of MPL, particularly from fisheries, are embedded in its Programme Priority Areas for Bioeconomy for Sustainable Food and A*griculture* and *Blue Transformation,* respectively, under its Strategic Framework for 2022–2031. A strategy for reducing plastic pollution is outlined in the GEF's Programming Direction under GEF-8 (2022–2026), particularly in the Chemicals and Waste Focal Area, the Circular Solutions to Plastic Pollution Integrated Program, the Clean and Healthy Ocean Integrated Program, and the *Sustainable Cities Integrated Program*.

The IAEA's NUTEC Plastics Initiative (Nuclear Technology for Controlling Plastic Pollution) encompasses research and development, as well as technical cooperation components, promoting the application of nuclear techniques to address MPL issues. Radiation-assisted synthesis of bio-based plastics for developing sustainable plastic alternatives; radiation-assisted pyrolysis for converting plastics into waxes, fuels, and other chemical products; and isotopic techniques for improving precision of classification and characterization of micro- and macro-plastics in monitoring of these substances in the aquatic environment are some of the examples of nuclear technologies reported for its capacity development, R&D and technical assistance project components.

As a secretariat of the Basel, Rotterdam, and Stockholm Conventions, the BRS Secretariat supports Parties in implementing their obligations under these treaties through various technical assistance and capacity-building projects. Since the adoption of the plastic waste amendment in 2019, the BRS Secretariat has delivered technical assistance on plastic waste through 126 projects implemented in 76 countries across Africa, Latin America, Eastern Europe, and the Asia-Pacific region.

Geographical Focus

Six out of nine IOs deliver their operation globally, while four IOs are active in specific regions. WEF-GPAP offered the most extensive geographical coverage, including Africa, South Asia, Southeast Asia, and Latin America & Caribbean (LAC) regions. ERIA, as a research institution that responds to the regional mandate, provides knowledge services to ASEAN+3 countries (China, the Republic of Korea, and Japan).

No IOs participating in the present report specifically selected the Middle East and North Africa (MENA), Central Asia, and Oceania regions. However, they are considered to be assisted by the abovementioned six global IOs: for instance, the GEF's ISLAND Program, which seeks to prevent the build-up of materials and chemicals containing POPs, mercury, and other harmful substances. This programme targets SIDS in the Oceania and Latin America & Caribbean regions.

At the programme/project level, 14 global projects were reported, while 8 regional projects were identified, including those in Southeast Asia (9), Latin America & Caribbean (3), Africa (2), and Oceania (1). Many country-specific projects were reported by UNIDO, including "*Integrated Approach Towards Sustainable Plastics Use and Marine Litter Prevention in Bangladesh*", "*Ghana Circular Economy Centre*", and "*Promoting circular economy and resource efficiency in plastic value chains in Fiji*". Other country-specific actions included Brunei Darussalam, Cambodia, China, Egypt, India, Indonesia, Laos, Malaysia, Morocco, Myanmar, Nigeria, the Philippines, Singapore, South Africa, Thailand, and Vietnam. At the same time, many more are considered supported through global programmes/projects.

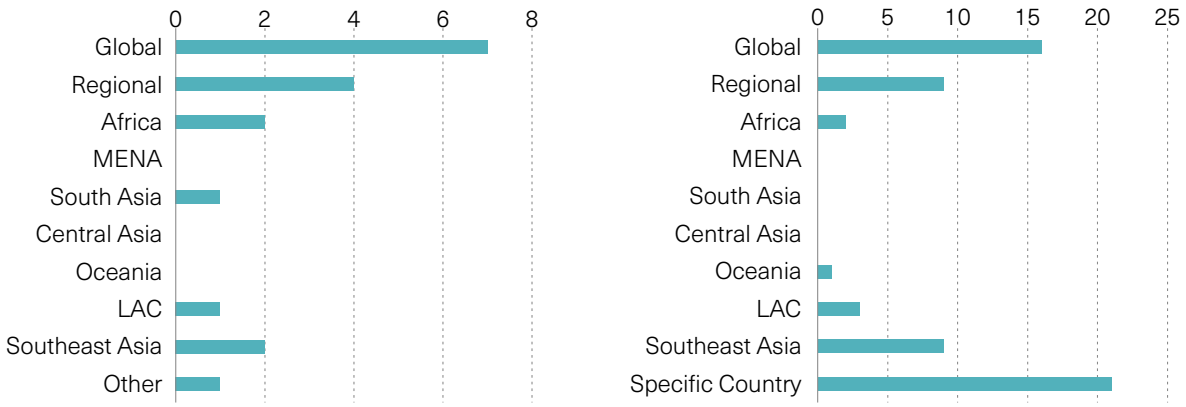


Figure 34: **Geographical focus of IO's operation - institutional (left) and program/project (right)**

Partners of Focus

Most IOs are working with more than three actors as partners of focus, suggesting that combating MPL requires wide socio-economic change, which necessitates influence on diverse social actors. National governments, academic/educational institutions, and business stands are attracting more attention. Two institutions, namely the OECD and the BRS Secretariat, primarily target national governments. GEF works with the most diverse actors through its business model as a funding mechanism for multiple MEAs, providing finance to 18 GEF Agencies that are IOs and NGOs.

On the programmes/projects level, the national government stands out as a partner of focus, followed by the business sector, CSO, and academic institutions.

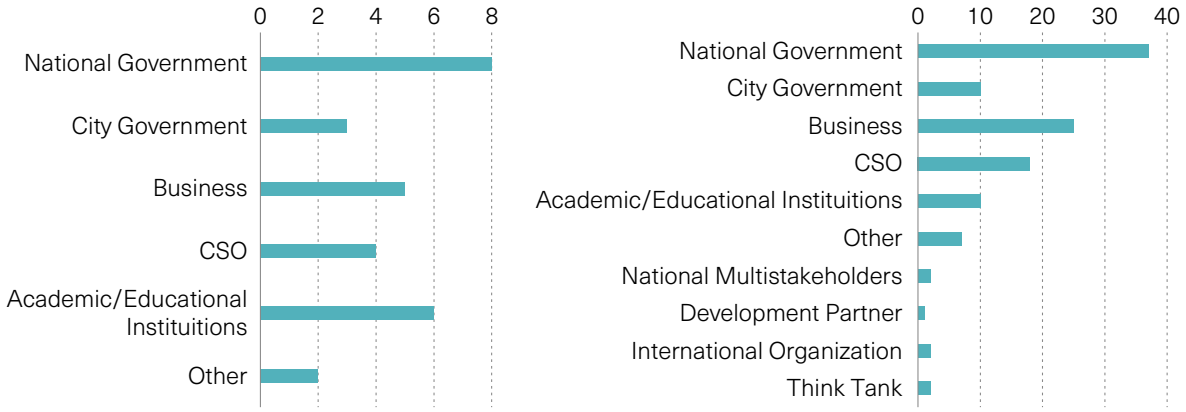


Figure 35: **Partners of focus of IO's operation - institutional (left) and program/project (right)**

Approach

All IOs are incorporating diverse approaches to assist beneficiaries in addressing MPL, including institutional development (creation and strengthening of organisations), development of laws, regulations, strategies, and action plans, as well as the development of data and knowledge, and the promotion of global/regional integration, coordination, and exchange.

Many IOs reported formulating and implementing projects and programmes for strengthening institutions (a system of rules and structures within a country) through development of laws, regulations, strategies/action plans, etc, capacity development of relevant actors, and, where relevant, creation

and strengthening of organisations with certain functionalities in relation to management of plastics / MPL. For instance, *the Ghana Circular Economy Centre (GCEC) Project* by UNIDO aims to establish a Circular Economy Centre that serves as a hub, linking relevant actors (such as solution providers and financiers) and providing support to scale up successful circular business models and technologies in Ghana.

Some IOs have established a financing window dedicated to plastics-relevant projects and programmes on a wide range of thematic topics. Funded by the Norwegian Agency for Development Cooperation (NORAD) and the German Government, the BRS Secretariat has established the Small Grants Programme (SGP) for Plastic Waste, which aims to identify and implement low-cost, high-impact plastic waste management projects in partner countries. As previously noted, GEF, as a financing mechanism for several major MEAs, utilizes its GEF Trust Fund to finance thematic projects and programmes proposed by GEF Agencies. WEF-GPAP establishes financing task forces within its National Plastic Action Partnerships (NPAP) to develop national financing roadmaps that reflect the existing financing landscape for plastics action in the country and present key recommendations for unlocking and driving investments.

Creation of a global partnership on specific topics that support its members through combining multiple approaches is increasingly common among IOs to maximise effectiveness, encourage mutual learning among members/beneficiaries, and scale impacts. The Ocean Litter Programme, jointly executed by IMO and FAO, includes activity components of all the approaches except for finance to allow for efficient coordination and knowledge-sharing between the projects to benefit member states in combating MPL from the shipping and fisheries industries. The Global Alliance on Circular Economy and Resource Efficiency (GACERE), facilitated by UNIDO and UNEP, supports institutional development, data, and knowledge development, and global coordination and exchange as a global alliance of governments to promote a just transition to a sustainable and circular economy. To achieve cleaner and healthier cities in Africa by 2030, the African Clean Cities Platform (ACCP), facilitated by UN-Habitat, serves as a platform for knowledge sharing, capacity development, and infrastructure investment, enabling member cities to identify affordable and replicable solutions to their waste management challenges. Collection of critical data and policy, operational, and financial analyses, which translates into development of policy frameworks on plastic waste management and formulation of projects, including capacity development and infrastructure investment, are among its core activity components.

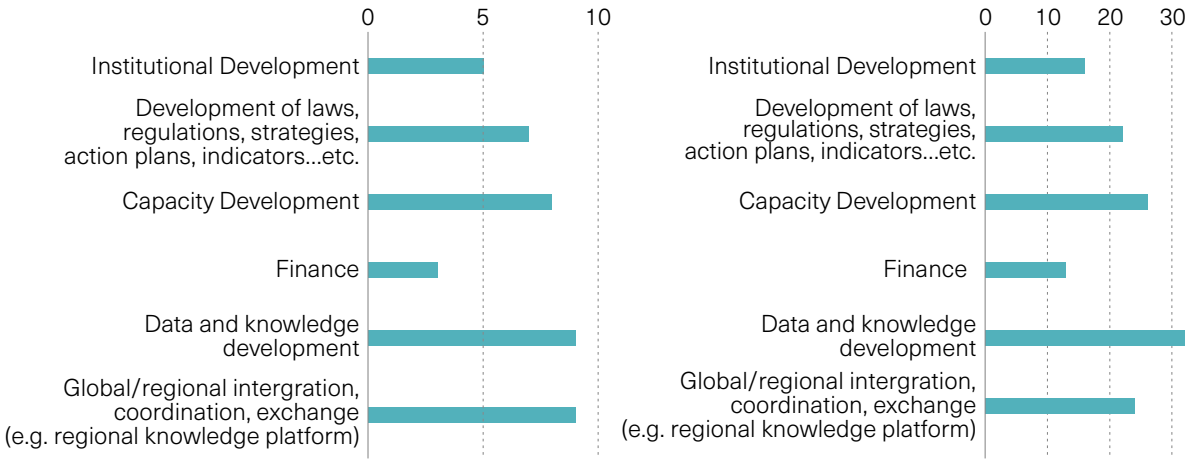


Figure 36: **Approaches taken**

Thematic Focus

At the institutional level, notable differences among the survey options were not observed except for "*Collection/removal of plastic litter from the natural environment (e.g., beach clean-ups, retrieval of fishing gear...etc)*" which received the least report among all options.

At the project level, cross-issue interventions, such as "Promotion of private sector" and "education, awareness-raising, and human behaviour," are among the most frequently reported thematic focuses. At the same time, "*scientific research"* received less attention. Interventions are being implemented across the plastics value chain in a balanced manner, from upstream to downstream. At the same time "*proper waste management"* received slightly more attention than stages, and "*Collection/removal of plastic litter from the natural environment"* was again the least reported option.

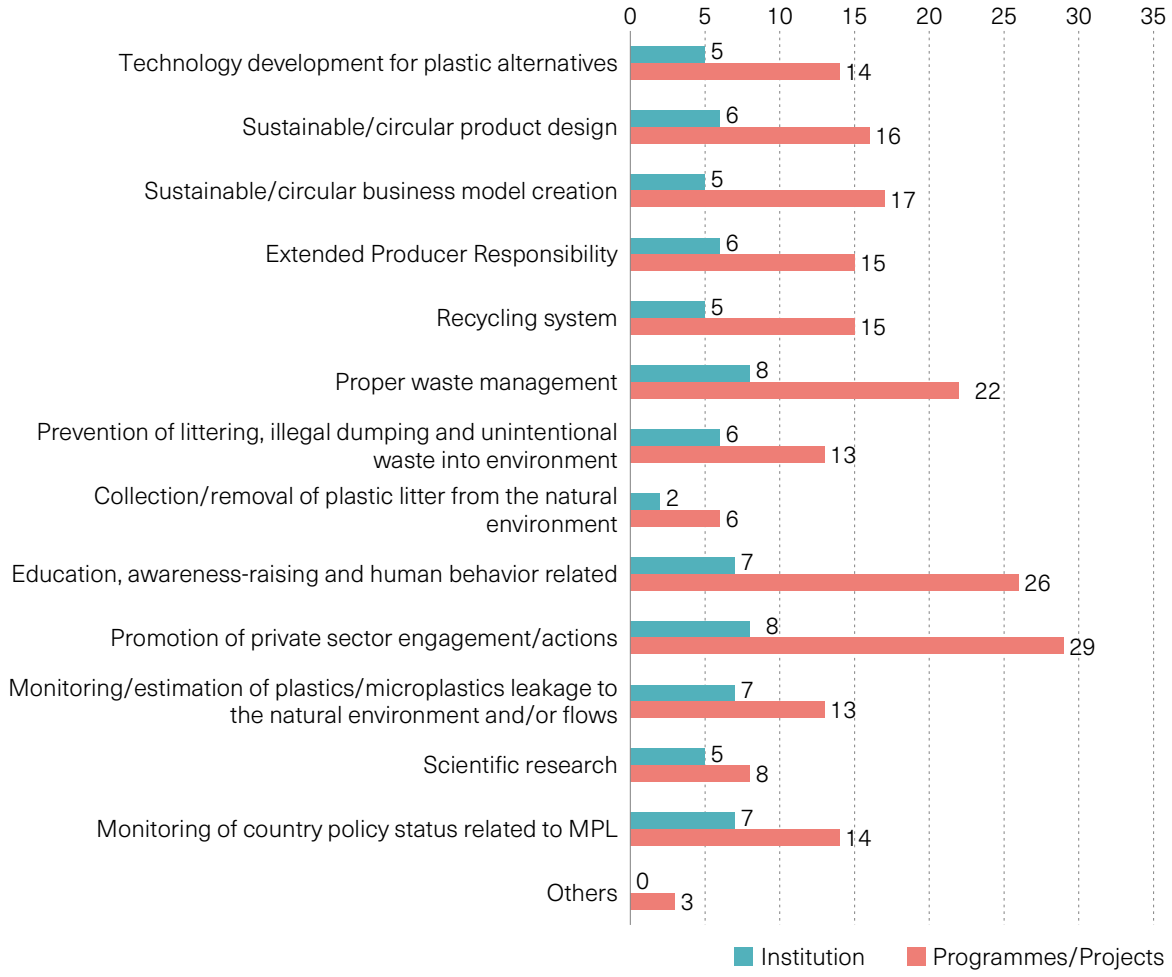


Figure 37: Thematic Focus

Responding to Countries' Challenges

The survey also inquired about the specific country challenges to which IOs are deploying assistance efforts through their activities, services, knowledge products, and financing schemes. "*Proper waste management system (including lack of local capacity)*" received the most responses (seven). In contrast, other survey options received nearly equal attention, except for "*recycling system improvement,*" which

received two responses.

There is a notable difference between countries' perceptions of the challenges they face and the assistance provided by IOs, where "*recycling system improvement*" received the most responses. In contrast, it received the least response from the IOs, with the most selected option being "*Proper waste management system*." This may mean that IOs are more prone to consider the development of a functional waste management system as a more immediate solution to prevent plastic pollution, although caution must be paid in its interpretation, as survey results are based on a limited number of responses and projects and programmes are typically designed through extensive prior research on the needs of beneficiaries and in a specific context.

Of the IOs selected "Others", FAO reported a series of knowledge products and guidelines related to the prevention and reduction of sea-based sources of MPL; UNIDO reported a project "Support for transitioning from conventional plastics to more environmentally sustainable alternatives" in South Africa; and WEF-GPAP reported on its inclusive approaches which, among others, includes Gender Equity and Social Inclusion (GESI) work that ensures inclusive policy process at national and global level, incorporating cultural, religious and societal considerations of the relevant country.

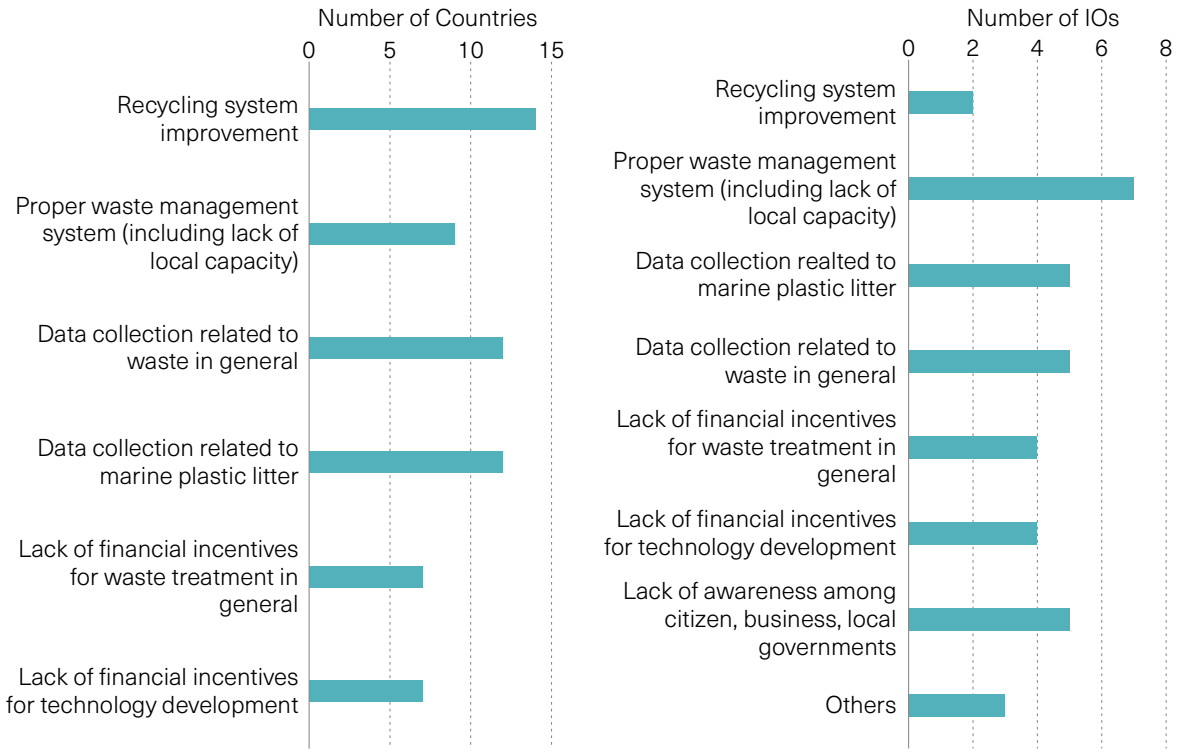


Figure 38: Challenges in addressing plastic pollution – perception by countries (left) and number of IOs that provide support that address these challenges (right)

7

Best Practices

Finally, the survey also inquired about what countries perceive as best practices in addressing MPL. While the success of policy interventions is often influenced by considerations of socio-cultural, political, and economic contexts in their design and implementation stages, best practices can also stimulate cross-boundary learning and policy innovation in different settings.

Eleven countries reported on national initiatives, while local/community initiatives, private sector initiatives, and international initiatives were also reported by many. The reported cases ranged from monitoring of macro- and microplastics at the national scale, private sector initiatives for reducing SUP, to the introduction of fishing gear and buoy deposit systems, and global action to promote plastic alternatives. Detailed information submitted by countries can be accessed at https://g20mpl.org/partners or in Annex I, which include inks to Country Information attached to this report.

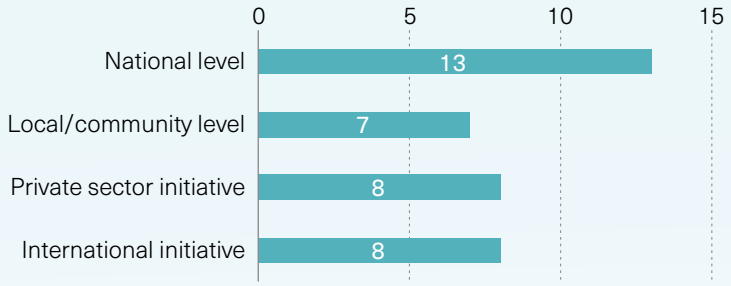


Figure 39: **Best practices scale: from local to global**

Annex I. Links to Country Information

The unfiltered responses from all countries as received can be viewed in the G20 Osaka Blue Ocean Vision website and are accessible from the following QR codes. This is compiled with the intent of ready reference and further reading on the chapters covered in the G20 Report on Actions against Marine Plastic Litter (7th Edition):

G20 Countries				
Australia   2025	Brazil   2024	Canada   2025	China   2024	France   2025
Germany   2025	India   2023	Indonesia   2024	Italy   2025	Japan   2025
Mexico   2025	Republic of Türkiye   2025	Russia   2019	Saudi Arabia   2024	the European Union   2025
the Republic of Korea   2025	the Republic of South Africa   2025	the United Kingdom   2025	the United States of America   2024	

Invited Countries					
Antigua and Barbuda  2023	Bahrain  2021	Bangladesh  2021	Bhutan  2021	Brunei  2021	Chile  2022
Colombia  2022	Costa Rica  2022	Dominican Republic  2021	Egypt  2023	Fiji  2022	Finland  2021
Iraq  2021	Islamic Republic of Iran  2020	Kiribati  2021	Myanmar  2025	Nepal  2022	New Zealand  2025
Norway  2025	Oman  2022	Pakistan  2021	Panama  2021	Papua New Guinea  2021	Peru  2025
The Philippines  2025	Republic of Azerbaijan  2020	Republic of Maldives  2021	Republic of Mauritius  2023	Republic of Palau  2021	Republic of the Marshall Islands  2022
Samoa  2022	Senegal  2022	Singapore  2025	Solomon Islands  2023	Spain  2025	Sri Lanka  2023
Thailand  2025	the Netherlands  2025	United Arab Emirates  2023	Uruguay  2021	Vietnam 2023	

Annex II. Summary of Challenges

The table below summarizes the challenges reported by countries for the present Report. Some of the challenges noted in the 2024 Report persist as ongoing issues (black), while additional issues are highlighted in blue.

Country	Specific Challenges
Recycling system improvement	
Australia	Limited recycling capacity to manage problematic hard to recycle materials like soft plastics. While there has been significant recent investment in reprocessing capacity, capacity shortages remain for some materials, including where low volumes make reprocessing unviable. The Australian Government is working to reform Australia's packaging regulations which will help us tackle the plastic problem. Strengthened regulation provides an opportunity to ensure plastic packaging is designed for circularity and will drive the uptake of recycled content, reducing reliance on virgin materials. It will drive industry investment, minimise waste and support circular economy outcomes for plastic packaging including soft plastics packaging. To boost plastic recycling rates, the government committed additional funding to the Recycling Modernisation Fund for hard to recycle plastics.
Canada	Waste collection has been inconsistent across Canada. With the implementation of EPR, collection is becoming more consistent within provinces and territories, though there are still differences between provinces and territories. While house dwellings in urban areas in Canada widely have access to collection, there is inconsistent access to collection for other segments of the population including those that live in multi-family residential buildings and Northern, rural and remote communities. The Canadian plastic reprocessing sector is well established for packaging materials made from high density polyethylene (HDPE) and polyethylene terephthalate (PET), but there is limited capability with the current infrastructure to reprocess other types of plastic materials. Flexible plastics, multi-material items, dark and opaque plastics, or plastic products not designed for recyclability (such as products with difficult-to-remove labels and adhesives) are difficult to sort and reprocess using current recycling processes without reducing the quality of the recycled material. Contamination rates in recycling systems in Canada are high. Contamination plays a significant role in reducing recycling yields and can impede the recycling process. Non-recyclable or difficult to recycle material that ends up in the recycling system is known as contamination and leads to much of this material being sent to landfill or contaminating otherwise recycled materials. This reduces recycling yields and increases plastic pollution. Specific Challenges: Education and Awareness Consumer awareness and education can pose a challenge in terms of a lack or reduced understanding of how to and what can be recycled across municipalities, due to inconsistencies of recycling infrastructure across Canada. Therefore, it is important to continue to increase knowledge sharing and resources to inform Canadians and raise awareness around this issue.
Germany	While the plastic recycling quota of the packaging act boosted plastic recycling, however the demand side for recycled material did not develop in the same way. Therefor minimum recycled content requirements, as foreseen by the EU-Packaging and Packaging Waste Regulation, need to complement recycling quota.
Peru	• Insufficient plastics recovery infrastructure in the country, which limits the capacity to reuse recyclable materials. • Low citizen participation in the Source Segregation and Selective Collection of Solid Waste Programme (Recicla Program).

Country	Specific Challenges
The Philippines	Training/education, segregation (waste should be segregated to recyclable/non-recyclable first before recycling).
Mauritius	(i) Low recycling rate of 6-7% as the wastes are commingled; (ii) No source segregation of wastes in place in Mauritius thus leading to contamination of recyclables; (iii) Currently there is no adequate collection system and infrastructure in place to promote recycling. Around 93-94% of the solid wastes are being landfilled at the sole landfill of the island; (iv) Lack of Public Awareness and Education on the importance of recycling and impacts of plastics wastes in the environment; (v) Limited market for recycled products; (vi) Lack of enforcement.
Mexico	Gaps in waste collection infrastructure, especially in remote coastal communities.
Myanmar	• Lack of formal recycling infrastructure and reliance on informal sector operations. • Low recycling rates with significant leakage into the environment. • Lack of municipal support for recycling activities, which limits the participation of informal collectors in plastic waste management. • Insufficient facilities and resources to segregate and recycle waste effectively
New Zealand	• High levels of contamination in household recycling streams. There are few consequences for those who do not put the right materials in their recycling bin. • New Zealand is a small, remote island country, with a dispersed population which means: - limited investment is available - it is challenging to manage all our waste and recycling onshore (although significant improvements made since 2018) - we are further away from end-markets for recyclable material making it more difficult to make this a viable pathway - we are reliant on larger economies (e.g. Australia) for specialized recycling (e.g. e-waste, solar panels). • Increasing global scale of processing plants often sizes new plants above NZ's requirements. As old plants close new plants are not opening. • Loss of domestic capacity has been exacerbated by recent tough economic conditions which has resulted in the closure of some processing plants, particularly for paper and cardboard.
Netherlands	Currently the market for recycled plastics is quite challenging, as the price of virgin plastics is very low and influenced by a lot of international factors. Some Dutch plastic recycling plants are in financial difficulties because of this. Getting the proper international data sets to scientifically verify and influence the chain (via policy) is a challenge. This includes the international financial data on plastics, recycled plastics and other materials.
South Africa	The country suffers from a lack of comprehensive recycling services and infrastructure. This deficiency hinders efforts to reduce the burden on landfills and fails to capitalize on the potential benefits of recycling. Without robust recycling systems in place, the pressure on waste management infrastructure continues to escalate, making the need for immediate and effective solutions ever more critical. Landfills are nearing their full capacity, with some expected to reach their limit as early as 2025. The overcrowding of landfills is not just a logistical problem; it poses severe environmental risks. As these sites overflow, harmful toxins seep into the environment, threatening both ecological and human health.

Country	Specific Challenges
Spain	The plastics sector in Spain is of great importance, as evidenced by the turnover of the plastics manufacturing subsector in primary forms, which has risen to of the plastics manufacturing subsector in primary forms, which accounts for slightly more than 17% of the total chemical industry slightly above 17% of the total chemical industry. In a circular economy, where priority should be given to the use of secondary raw materials, the penetration of these materials is not consolidating at a steady pace and is limited by a fragmented market, which is not immune to the behaviour of the prices of raw materials. the behaviour of prices for virgin raw materials. Added to this are the costs of collection, treatment and management of plastics, the low availability of recycled plastic polymers and the lack of available technologies for the valorisatio of certain polymers, additives or multilayer products. In addition, the small size of most companies hinders innovation, the ability to adapt production to new circular models, as well as the professionalization of the and the professionalization of management. It is therefore necessary to encourage the transformation of the sector towards a sustainable model with special emphasis on reducing waste generation and increasing recycling rates.
Thailand	Some recyclable materials can be recycled in theory, but not in practice. These include the lack of appropriate recycling technologies or infrastructure, especially for complex or multi-layer materials. Economic challenges also play a role, as the cost of recycling may exceed the value of the recovered materials. Contamination from food or other waste can render materials unrecyclable and poor product design-such as mixed materials-further complicates the process. Additionally, low collection rates and weak market demand for recycled products make it difficult to recycle some materials. Effectively. As a result, many theoretically recyclable ends up in landfills or incinerators.
Proper waste management system (including lack of local capacity)	
Canada	ALDFG/Ghost Gear: A lack of recycling facilities for end-of-life fishing gear has been identified as a problem for ensuring responsible disposal of fishing gear – targeted funding was provided between 2020–2024 by DFO to establish additional capacity, but lack of facilities remains a challenge. Inefficient waste management practices disproportionately affect Indigenous populations, equity-seeking groups and low-income communities. Northern and remote communities face many unique challenges with waste management, such as limited or no access to recycling programmes, hazardous household waste disposal options and properly designed waste management facilities. This results in environmental and health risks for northern communities, especially when open waste burning is used as a disposal method.
Peru	One of the challenges in Peru is the implementation of clean points accessible to citizens, intended for the post-consumer recovery of plastic waste. Although there are efforts to promote this infrastructure, coverage is still limited and its distribution does not always respond to the needs of the different regions. This, added to the lack of environmental awareness and local capacity to efficiently manage these points, makes it difficult to achieve an adequate plastic waste management system in the country.
The Philippines	Scarcity of infrastructure for collection and disposal in some parts of the country
Mauritius	(i) The sole landfill of the island is nearing saturation and limited land availability restricts the lateral expansion of the landfill and the creation of new landfills; (ii) There is a need to invest in adequate collection system and infrastructure to promote recycling; (iii) Low recycling rates as wastes are not segregated, thus leading to contamination of recyclables and no critical mass; (iv) Lack of public awareness regarding waste reduction, recycling and proper waste disposal, are major challenges. It is crucial to promote responsible waste management practices through education and awareness campaigns; (v) Integration of the informal sector; (vi) Lack of cost recovery mechanisms can hinder the development and implementation of sustainable waste management solutions;

Country	Specific Challenges
Mauritius	(vii) It is essential to strengthen the legal framework for waste management, including clear definitions of waste types and segregation requirements; (viii) Lack of capacity at local and central levels.
Mexico	Lack of uniform implementation of plastic bans in all states.
Myanmar	• Inadequate infrastructure for waste collection, segregation and disposal. • Insufficient public participation. • Due to limited financial support and insufficient public awareness.
New Zealand	Points above: Waste diversion opportunities are undeveloped. E.g. product stewardship or EPR schemes are immature meaning there are few opportunities for materials to be responsibly managed, leading to high landfill rates. Approx. 40% of the waste sent to landfills is potentially divertible.
Netherlands	Because waste collection in the Netherlands has been delegated to municipalities, there is a lack of any form of standardization and direction on how to collect waste as effectively as possible for the circular economy.
South Africa	South Africa's waste management system is facing a mounting crisis. As the population rapidly grows, so does the amount of waste generated, creating immense pressure on an already strained infrastructure. This issue is most pronounced in major cities, where the exponential increase in waste is overwhelming existing systems. Waste collection services are inadequate. Only 60% of households have access to weekly waste collection. The lack of regular and efficient waste collection leads to illegal dumping and littering.
Data collection related to waste in general	
Australia	States and territories collect data in various formats and parameters, based on their Environment Protection Agency (EPA). Data sharing is limited due to confidentiality and can be difficult to aggregate at a national level. Progress underway to streamline data collection with the use of reporting standards and improve data sharing between the various levels of government (Local, State/Territory/ Commonwealth)
Canada	Waste trade Clear and consistent information on the characteristics of waste trade is currently lacking. When waste is traded in bales, there is no standardized mechanism or methodology in place to determine the material or product composition of these bales.
Peru	In Peru, one of the main challenges in collecting waste-related data is linked to the quality of the information reported. Many municipalities and actors responsible for waste management face difficulties in collecting, processing and reporting consistent and reliable data due to technical, financial and human capacity limitations. This generates inconsistencies and gaps in reporting, making it difficult to build a solid baseline for monitoring and evaluation. In addition, the lack of standardization in data collection methods and the absence of adequate validation negatively impact the quality of the information.
The Philippines	Implementation of segregation before collection.
Mauritius	(i) Registered recyclers and exporters do not systematically submit their annual returns on amount of plastic wastes recycled locally or exported for recycling as required under the Local Government (Registration of Recycler and Exporter) Regulations 2013; (ii) Incomplete and inaccurate data received from registered exporters and recyclers; (iii) Manual data entry on a computerised system are susceptible to human errors thus to inaccurate data;

Country	Specific Challenges
Mauritius	(iv) Lack of enforcement pertaining to above-mentioned regulations; (v) Commercial, institutional and industrial waste generators have to obligation to report on amount of wastes being generated, recycled and disposed of. (vi) Data Gaps on amount imported as plastic packaging
Mexico	In the field of plastic pollution, the non-standardised regulatory frameworks, reduced institutional capacities and pressures from productive sectors, have limited attention on the excessive consumption of plastics. In most tourist destinations, working with market actors to create incentives to reduce plastic use and with travellers to adopt reduce and reuse models is still a pending task. An additional dimension here, involves regulating, enforcing and motivating changes in informal vendors and service providers that are not bound by formal policies. While improper plastic waste management is a widespread issue, it also represents a significant environmental challenge that the tourism sector is striving to address.
Myanmar	• Due to limited financial resources, it is not possible to accurately collect data on the types, quantities and storage capacities of waste generated, resulting in a lack of reliable waste data.
Netherlands	Collectors, sorters, recyclers and producer organisation are not always transparent about the processing of data. This is related to the lack of reporting obligations. As a result, creating data-driven policy is not always possible.
New Zealand	• Until 2025 kerbside recycling data has not been collected by a single agency, so we did not have reliable data around how much of that material was collected and processed. In September 2025 Territorial Authorities are required to report to MfE: – types of materials collected – tonnes of materials collected – contamination tonnages for waste services managed by a territorial authority (e.g., kerbside recycling collection) – facilities owned or operated by a territorial authority (e.g., material recovery facility) • Private companies provide many of the waste services provided by municipal authorities in other countries and are not required to provide the above data to MfE. This makes it difficult for local or central government
Data collection related to MPL	
Canada	ALDFG/Ghost Gear Prior to 2020, DFO had very limited information on rates of gear loss in Canadian waters. In 2020, Canada implemented mandatory lost gear reporting for all commercial fisheries. Reporting of lost gear is critical to fully understand the amount of gear lost in Canada and the subsequent impacts on marine ecosystems and the environment. Reporting lost gear is part of sustainable management of Canadian fisheries and as such reporting is now an enforceable requirement of commercial licence conditions. The failure to report lost gear is subject to charges under Canada's Fisheries Act. To support lost gear reporting requirements, Fisheries and Oceans Canada developed the Fishing Gear Reporting System (FGRS); a user-friendly application for harvesters to report lost and retrieved fishing gear. Though improvements in reporting rates have been made, low compliance on reporting lost gear still exist in certain areas, and DFO will continue to engage industry on the importance of reporting. Data harmonisation: A lack of harmonisation and coordination in marine plastic litter data collection remains a persistent issue, resulting in limited interoperability between disparate datasets. In some cases, specialized methods are required to accurately determine the material composition of collected litter. Identifying the sources of plastic litter, particularly when it is degraded or fragmented, adds further challenges to efforts aimed at mitigating and reducing environmental

Country	Specific Challenges
Canada	leakage. Additionally, the wide range of particle sizes and types, from large debris to microplastics, introduces further challenges, as different sizes require distinct sampling techniques, equipment, analytical methods and data parameters.
China	At present, the number and frequency of marine litter monitoring points are still insufficient, and the technical support for coastal cities to carry out marine litter management needs to be strengthened.
Germany	A remaining challenge remains D10C2 of the MSFD on micro litter in the different marine compartments since monitoring and assessment approaches create results, which are hard to compare. However, joint approaches with the involvement of DE are currently been developed in the EU Technical Group on Marine Litter and OSPAR and HELCOM. OSPAR currently agreed on a new common indicator on micro litter in sediments
Japan	Comparable historical monitoring data of MPL across regions based on consistent sampling methodologies is essential for effective countermeasures. As reported in Section 3.4., Japan is working nationally and globally to address this issue by promoting harmonisation of methodologies and compiling/sharing monitoring data on ocean surface microplastics to build foundations for science-based policymaking. However, there is still a lack of monitoring data, especially in South-East Asia, Africa, South America and India. Therefore, promoting the recognition of AOMI among international organisations and researchers to invite further data contribution and fill in the data gaps is important.
Peru	• Lack of detailed research on sources and transport routes of plastic waste to the sea.
The Philippines	National marine litter baselining is among the strategies identified in the Philippines' National Plan of Action for the Prevention, Reduction and Management of Marine Litter (NPOA-ML). Under this strategy, a National Research Framework and Programme for the Monitoring and Assessment of Marine Litter (NRFP-ML) will be developed to harmonize monitoring and assessment of marine litter in the country to address concerns on comparability, transparency and ease of data gathering. In addition, a database on plastic litter (macro and microplastics in different habitats) will be developed to consolidate all the data/information from different monitoring and research activities throughout the Philippines. These data can be used in the formulation of policies and ordinances on management of plastic litter specifically by localities and their respective marine environment.
Mauritius	(i) Recyclers and exporters of wastes may close down as they may no longer be financially sustainable and people will lose their jobs; (ii) Low recycling rate as valuable resources will land up in the landfill instead of being reused or recycled; (iii) Increase in quantity of wastes being disposed at the landfill which is not sustainable; (iv) Lack of motivation from the public to sort their waste, participate in collection programs, or invest in reusable products.
Myanmar	• Limited monitoring and data collection on MPL.
New Zealand	Central government does not routinely collect data related to MPL, but did provide $12.5 million in 2022 towards research to determine the impacts of microplastics in New Zealand. It was the first comprehensive research investigating the impact of microplastics and the threat to New Zealand's bio heritage systems, environments and ecoservices. An ENGO also provides extensive litter reporting (but this is limited to beaches, freshwater and stormwater systems rather than plastic in the ocean).

Country	Specific Challenges
Netherlands	• Monitoring of seafloor litter remains a difficult challenge. NL currently investigates of fishing for litter data can also be used for this purpose. Video monitoring is in development but may be difficult to apply in the generally turbid Dutch marine waters. • Monitoring of microplastic particles is under development and methods are becoming more harmonized and improving due to the European Technical Group Marine Litter (TGML) and OSPAR guidelines and expert groups; and via international cooperation with UK and Norwegian microplastic labs. • Reliable sampling and analyses microplastics • Modelling especially pathways of marine litter
South Africa	There are different sources of data for MPL which makes it difficult to have reliable data.
Thailand	Inconsistent data collection from various sources; lack of standardized data collection systems for MPL in areas under Marine Department's responsibility.
Canada	ALDFG/Ghost Gear Prior to 2020, DFO had very limited information on rates of gear loss in Canadian waters. In 2020, Canada implemented mandatory lost gear reporting for all commercial fisheries. Reporting of lost gear is critical to fully understand the amount of gear lost in Canada and the subsequent impacts on marine ecosystems and the environment. Reporting lost gear is part of sustainable management of Canadian fisheries and as such reporting is now an enforceable requirement of commercial licence conditions. The failure to report lost gear is subject to charges under Canada's Fisheries Act. To support lost gear reporting requirements, Fisheries and Oceans Canada developed the Fishing Gear Reporting System (FGRS); a user-friendly application for harvesters to report lost and retrieved fishing gear. Though improvements in reporting rates have been made, low compliance on reporting lost gear still exist in certain areas and DFO will continue to engage industry on the importance of reporting. Data harmonisation: A lack of harmonisation and coordination in MPL data collection remains a persistent issue, resulting in limited interoperability between disparate datasets. In some cases, specialized methods are required to accurately determine the material composition of collected litter. Identifying the sources of plastic litter, particularly when it is degraded or fragmented, adds further challenges to efforts aimed at mitigating and reducing environmental leakage. Additionally, the wide range of particle sizes and types, from large debris to microplastics, introduces further challenges, as different sizes require distinct sampling techniques, equipment, analytical methods and data parameters.
Lack of financial incentives for waste treatment in general	
Germany	Extended producer responsibility (EPR) obligations and recycling quota are appropriate incentives for waste treatment. However, we face the challenge that mixed residual waste ends up in separated waste streams. This is because end consumers do not have to pay for those streams due to the EPR system (like light weight packaging) while there is a fee on mixed municipal waste). This deteriorated the quality of the separately collected waste.
Mexico	Limited funding mechanisms for innovation and circular economy pilots.
Myanmar	• Limited funding and budget allocation for waste management and recycling initiatives. • No incentives or subsidies for adopting environmentally friendly waste treatment technologies.
Peru	In Peru, although the legal framework for solid waste includes financial incentives for citizens, such as discounts on municipal taxes to promote segregation and proper waste management, their imple-mentation by local governments remains limited.

Country	Specific Challenges
South Africa	By providing a tangible financial reward for the return of recyclable products, deposit-refund systems have been shown to stimulate recycling (or at least safe disposal) and discourage littering (United Na-tions Environment Program, 2005); at least in the case of the fairly limited range of products to which they can be applied (Inter-American Development Bank, 2003). Compared to product taxes, which do not generally provide incentives to stimulate recycling, they are also fairer on households, who are able to offset the price increase associated with the deposit by returning the product and claiming a refund.
Lack of financial incentives for technology development	
Canada	ALDFG/Ghost Gear: Lack of funding to promote technology development related to preventing and reducing the effects of ghost gear has been identified as a challenge going forward as DFO shifts its focus to a preventative strategy on Ghost Gear. DFO has funded projects relating to technological innovation and will continue to work with industry to seek opportunities to promote the uptake, development and trial of new innovative technologies. In February 2025, Canada hosted the 2nd International Gear Summit, convening Indigenous and non-Indigenous harvesters, technical experts, like-minded nations and various agencies at all levels to discuss innovative fishing gear and address ghost gear.
France	Nuance: the strategy France 2030 plans to fund 300 million euros to the plastic recycling industry (action: strengthen investment in the recycling chain and incorporation of plastics).
Myanmar	• Limited funding and no subsidies for developing waste management technologies. • Low investment attractiveness due to unprofitable infrastructure and lack of tipping fees. • No financial mechanisms like grants or loans to support innovation in waste management. • Limited incentives for adopting circular economy practices.
Peru	• Lack of financing mechanisms for pilot projects aimed at technological solutions for plastic waste management. • Weak connection between the academic and industrial sectors to implement technologies that minimize the generation of plastic waste.
South Africa	Currently, the Municipal Infrastructure Grant (MIG) is the only source of funding from the national government that can be accessed by municipalities for waste-related infrastructure. However, waste projects have to compete with projects from other sectors (e.g. water, sanitation and electricity), which are typically prioritized. As such, the potential need for a dedicated fund for waste management infrastructure should be considered. However, in the case of funding for upgrading landfill infrastructure, such a fund should ideally have conditions attached, to ensure that municipalities implement the necessary waste management reforms to access such funding.

Annex III. List of Programmes and Projects by International Organizations

BRS	1. Plastic Waste Partnership (PWP)
	2. Small Grants Program (SGP)
ERIA	1. Leakage Prevention
	2. Behavioural Insight
	3. Mangrove
	4. Private Sector Seminar
	5. ASEAN Conference on Combating Plastic Pollution
	6. ERIA EWG
	7. GIZ 3RProMar
	8. ASEAN Declaration on Plastic Circularity
	9. Participation in INC Process
FAO	1. OceanLitter Programme
	2. FAO Global ALDFG Survey
	3. ICES-FAO Working Group on Fishing Technology and Fish Behavior
GEF	1. ISLANDS
	2. Circular Solutions to Plastic Pollution Integrated Program
	3. Reduce Marine Plastics and Plastic Pollution in Latin American and Caribbean Cities through a Circular Economy Approach
	4. Promoting Resource Efficiency and Circularity to Reduce Plastic Pollution for Asia and the Pacific
	5. Plastik Sulit: Accelerating Circular Economy for Difficult Plastics in Indonesia
	6. Establishing a Circular Economy Framework for the Plastics Sector in Ghana
	7. Life Cycle Management Project in Plastic Industry in China
IAEA	1. NUTEC Plastics
OECD	1. Global Plastics Outlook
	2. Policy Scenarios for Eliminating Plastic Pollution by 2040
	3. Regional Plastics Outlook for Southeast and East Asia
	4. Economic Instruments for a Resource-Efficient Circular Economy
	5. Minotoring Trade in Plastic Waste and Scrap 2025
UN-HABITAT	1. Waste Wise Cities
	2. African Clean Cities Platform
UNIDO	1. GACERE
	2. Integrated Approach Towards Sustainable Plastics Use and Marine Litter Prevention in Bangladesh
	3. Ghana Circular Economy Centre
	4. Establishing a Circular Economy Framework for the Plastics Sector in Ghana
	5. SWITCH2CE (SWITCH to Circular Economy Value Chains)
	6. Circular Solutions to Plastic Pollution in Morocco
	7. Circular Solutions to Plastic Pollution in South Africa
	8. Support for Transitioning from Conventional Plastics to More Environmentally Sustainable Alternatives in South Africa
	9. Study on Available Sustainable Alternative Materials to Plastics
	10. Supporting the Promotion of Circular Economy Practices on Single-use Plastic Value Chain in Egypt
	11. Promoting Sustainable Plastic Value Chains through Circular Economy Practices in Nigeria
	12. Operationalizing and Implementing Circular Economy Solutions to Minimize Plastic Waste and Reduce Plastic Pollution from Food and Beverage Packaging in India
	13. Promoting Circular Economy and Resource Efficiency in Plastic Value Chains in Fiji
	14. Circular Solutions to Plastic Pollution in the Philippines
WEF-GPAP	1. GPAP

Annex IV. Survey Templates

< Implementation Framework for Actions on Marine Plastic Litter > Template for the 7th Information-Sharing Report

FOR: Countries

Thank you very much for taking your time to participate this country survey.
Please fill out the form and send it to g20mpl@iges.or.jp **by 30 June 2025**, copying G20mpl@dffe.gov.za and tomoko_ichikawa@env.go.jp.

We also welcome any submission beyond the deadline which will be included in the final edition of the report planned to be published within a few months from the launch of the first edition of the report timed with the G20 Environment Ministers Meeting in October 2025. We request those who plan to submit such delayed submission to first contact the secretariat (g20mpl@iges.or.jp) to ensure inclusion in the final report.

For any questions/clarifications, please write to the email above.
We look forward to receiving your response.

Notes
* Please copy and paste the entry field (example: "Name (Year)" and "Brief Description") if you have multiple responses for each question.
* For each action reported, please...
  - clarify the scale at which the activity is implemented (national, provincial, local...etc.) and the leading implementing actor(s): national government, local government, private sector...etc. to the best possible extent.
  - be mindful of the different policy approaches employed.
* For "brief description", please describe what you think are unique features, in addition to general description of your country actions.

1. Name of country/Contacts:

Name of Country:

National Focal Point *(Please specify name and email address)*

Name:

Position:

Division:

Organisation:

Email:

2. Policy framework:

2.1. National Action Plan

Do you have a National Action Plan or strategy on MPL? Please choose one.

☐ Yes

Please provide the name of your action plan or strategy with a brief description here:
Name (Year):

Brief description:

☐ In preparation

Please provide the name of your action plan or strategy in preparation with a brief description here:

Name:

Brief description:

2.2. Legal framework

Do you have legislation on MPL? (including waste management and circular economy)

☐ Yes

Please list your country's legislation including name and brief description here:

Name (Year):

Brief description:

☐ In preparation

Please list your country's legislation in preparation including name and brief description here:

Name:

Brief description:

☐ No

2.3. Indicators and/or Targets

Do you have any MPL-specific indicators, targets or data collection framework in your country? (Please clarify definitions of indicators/targets where possible: example – "recycling rate" = "amount of waste (Mt) recycled/amount of waste (Mt) collected".)

☐ Yes / ☐ No / ☐ In Preparation (Provide details below if Yes/In-progress)

☐ **Plastic recycling:**

Indicators:

Targets (if any):

☐ **Plastic use reduction:**

Indicators:

Targets (if any):

☐ **Plastic to alternatives, such as glass, paper or bioplastics:**

Indicators:

Targets (if any):

☐ **Plastic leakage:**

Indicators:

Targets (if any):

☐ **Beach Cleanup:**

Indicators:
Targets (if any):

☐ **Ghost Fishing Gear recovery:**

Indicators:
Targets (if any):

☐ Others (Please specify)

Indicators:
Targets (if any):

Brief description:

2.4. Technical Standards, Guidelines and Methodologies

Do you have technical standards, guidelines, methodologies that regulate how plastic products and/or waste, including leakage to the environment, are produced, managed and/or monitored? (Such as MFA guideline, manufacturing standard, monitoring guidelines of marine litters/plastics in the environment...etc.) Please specify the names of the publication.

Topics

☐ production / manufacturing ☐ waste management / recycling ☐ leakage monitoring

☐ MFA ☐ Others:

Brief Description:

3. Measures:

Please choose one to indicate whether your country implements the following measures

3.1. Measures across Value Chain

3.1.1. Actions for encouraging sustainable / circular product design (example: improved durability, reparability, recyclability, reduction of material use per product...etc.)	☐ Yes ☐ No ☐ In Preparation

Specific Measures:

3.1.2. Policy actions for encouraging plastic alternatives, recycled materials at production stage	☐ Yes ☐ No ☐ In Preparation

Specific Measures:

☐ Use of biodegradable plastics

☐ Use of recycled materials

☐ Closed-loop recycling

Others: _____

Brief description:

3.1.3. Steps taken towards restricting microplastics in products.	☐ Yes ☐ No

Specific Measures:

Targeted Products

☐ Cosmetics and Personal Care Products

☐ Others (Please specify:)

Brief description (Please provide explanation for each targeted product selected):

3.1.4. Reduce single-use plastic (shopping bags, straws etc.) by regulations or voluntary measures (such as ban, levy, others)	☐ Yes ☐ No ☐ In Preparation

☐ Regulatory Measures (ex: production ban, Ban on use..etc)

Brief description:

☐ Economic Measures (levy, tax, subsidies...etc.)

Brief description:

☐ Informational Measures (guideline, standards...etc.)

Brief description:

☐ Others

Brief description:

3.1.5. Introduce Extended Producer Responsibility (EPR)	☐ Yes ☐ No ☐ In Preparation

Specific Measures:

* Copy & Paste the below box to provide more information if you have more than one EPR program/initiative targeting different products.

Targeted Products

Nature of Responsibility

☐ Financial responsibility

☐ Operational responsibility

☐ Collective producer responsibility

☐ Individual producer responsibility

Modality	Mandatory ERP	Voluntary EPR
	☐ Product take back ☐ Advance disposal fee (price:) ☐ Upstream tax (price:) ☐ Downstream subsidy (price:) ☐ Deposit refund system (price:) ☐ Drop off points	☐ Product Stewardship Initiative ☐ CSR Initiative
Eco-modulation (if applicable)	☐ No Eco-modulation (only standardized fees) ☐ Fees modulated based on recyclability of products	
Performance indicators	☐ collection rate* Current: % (Targets, if any: %) ☐ recycling rate* Current: % (Targets, if any: %) ☐ Others: *Please provide definitions:	
Brief Description		

3.1.6. Improve waste management and recycling system	☐ Yes ☐ No

Specific Measures:

3.1.7. Promoting plastic waste re-use, recycling and recovery opportunities	☐ Yes ☐ No

Specific Measures:

3.1.8. Install capturing trap/filter on drainage/river	☐ Yes ☐ No

Specific Measures:

3.1.9. Conduct clean-up activities in rivers/ wetlands/ beaches/ coasts/ coral reefs/ sea floor, involving local communities involving local communities	☐ Yes ☐ No

Specific Measures:

3.2. Issue-specific Measures

[1] Abandoned, Lost and Discarded Fishing Gear (ALDFG)

3.2.1. Taken/to be taken National Level Action and/or Community Level Action on Clean sea initiatives including ghost net retrieval, ocean-bound plastics etc.	☐ Yes ☐ No

Specific Measures:

3.2.2. Taken actions to prevent abandoned, lost and discarded fishing gear (ALDFG) being generated.	☐ Yes ☐ No

Specific Measures:

3.2.3. Created/creating collection/recycling mechanism for ALDFG	☐ Yes ☐ No

Specific Measures:

[2] Port Waste Reception

For waste management in ports, please provide details regarding their solid waste management practices/facilities including:

3.2.4. Whether there is an applicable legal framework	☐ Yes ☐ No

Brief Description:

3.2.5. The institution(s) responsible for (or playing a central role in, if voluntary action) managing the waste from ships? (example: port management authority, fishers' association...etc.)	☐ Yes ☐ No

Brief Description:

3.2.6. Whether ports possess waste reception facilities/systems to handle solid waste from ships, the volume of waste collected and the percentage of ports with waste reception facilities?	☐ Yes ☐ No

Brief Description:

Volume of waste collected:

Percentage of ports with waste reception facilities:

3.2.7. The handling procedures for each distinct waste stream once onshore.	☐ Yes ☐ No

Brief Description:

3.3. Partnership and Innovation

3.3.1. Boost multi-stakeholder involvement and awareness-raising	☐ Yes ☐ No

Specific Measures:

3.3.2. Encourage/ Incentivize action by private sector companies to reduce/ sustainably manage their plastic waste.	☐ Yes ☐ No

Specific Measures:

3.3.3. Encourage public awareness on MPL issues through formal education system and/or curriculum for	☐ Yes ☐ No

Specific Measures:

3.3.4. Promote innovative solutions through Research & Development (e.g., subsidy program, investment fund etc.)	☐ Yes ☐ No

Specific Measures:

3.4. Monitoring, Data Management, Understanding Flow of Plastics/MPL

3.4.1. Conduct Life Cycle Assessment (LCA) of plastic products. What are the challenges if LCA is not conducted?	☐ Yes ☐ No

Scope: ☐ Local ☐ National ☐ Regional ☐ International

Brief Description:

Challenges (if applicable):

3.4.2. Conduct Material Flow Analysis (MFA) on plastics. What are the challenges if MFA is not conducted?	☐ Yes ☐ No

Scope: ☐ Local ☐ National ☐ Regional ☐ International

Brief Description:

Challenges (if applicable):

3.4.3. Conduct monitoring/estimation/scientific research on leakage of plastics/microplastics to the natural environment and/or flow of ocean surface. What are the challenges if these actions are not conducted?	☐ Yes ☐ No

Specific Measures:

☐ Established a monitoring/reporting program/mechanism

☐ Regularly conduct monitoring/estimation/scientific research

☐ Conduct monitoring/scientific research

Scope:

☐ Local ☐ National ☐ Regional ☐ International

☐ Macro Plastics ☐ Microplastics (<5mm) ☐ Ocean ☐ (others: rivers, soils, air etc.)

Brief Description:

Challenges (if applicable):

3.5. International Collaboration

3.5.1. Participate in international cooperation through international organisations, multi-national groups, etc.	☐ Yes ☐ No

Specific Measures:

3.5.2. Support target region by your international cooperation initiatives/ projects:	☐ Yes ☐ No

Target Regions:

☐ Africa ☐ Middle East and North Africa ☐ South Asia ☐ Central Asia

☐ Oceania ☐ South East Asia ☐ Latin America and Caribbean

Specific Measures:

4. Challenges:

Check the challenges that your country has faced:

☐ Recycling system improvement

Specific Challenges:

☐ Proper waste management system (including lack of local capacity)

Specific Challenges:

☐ Data collection related to waste in general

Specific Challenges:

☐ Data collection related to marine plastic litter

Specific Challenges:

☐ Lack of financial incentives for waste treatment in general

Specific Challenges:

☐ Lack of financial incentives for technology development

Specific Challenges:

5. Best practices:

*(Please share in detail **novel best practices** which can be replicated elsewhere, if any. The practice can include those carried out on a national and local level, as well as ones initiated by the private sector, citizens, international cooperation and international regional level.)*

☐ National level ☐ Local/community level

☐ Private sector initiative ☐ International initiative

Description:

6. Further information:

(Please indicate further detailed information, if any, e.g. name and address of related website, name of published reports and materials)

Thank you very much for completing your response.
Joint Project Team for Preparation of the 7th G20 MPL Report

< Implementation Framework for Actions on Marine Plastic Litter > Template for the 7th Information Sharing Report

FOR: International Organisations/NGOs

Thank you very much for taking your time to participate this country survey.
Please fill out the form and send it to g20mpl@iges.or.jp **by 30 June 2025,** copying G20mpl@dffe.gov.za and tomoko_ichikawa@env.go.jp .

For any questions/ clarifications, please write to the email above.
We look forward to receiving your response.

Notes
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* For each action reported, please:
  • Clarify the scale at which the activity is implemented (national, provincial, local...etc.) and the leading implementing actor(s): national government, local government, private sector...etc. to the best possible extent.

Name of your organisation/Contacts:

Name of Organisation:

Focal Point *(Please specify the name and contact details of the person in charge: this information will not be published in the report)*

Name:

Position:

Division:

Email:

Strategic Focus of Organisation

Please indicate the current strategic focus of your organization's activities for MPL abatement in terms of geography, partners/sectors, approach and theme. (Please choose multiple options if applicable.)

☐ Yes, we have strategic focus

☐ No, we do not have strategic focus, but target any regions/actors/thematic issues on demand.

Geographical Focus

☐ Global

☐ Regional

☐ Africa ☐ Middle East and North Africa ☐ South Asia ☐ Central Asia

☐ Oceania ☐ Latin America and Caribbean ☐ South East Asia ☐ Other:

☐ Specific country (Please provide names of target countries):

Partners of Focus

☐ National Government ☐ City Government ☐ Business ☐ CSO

☐ Academia/Educational Institutions ☐ Others

Approach

- ☐ Institutional development
- ☐ Development of laws, regulations, strategies, action plans, indicators...etc.
- ☐ Capacity Development
- ☐ Finance:
- ☐ Data and Knowledge development
- ☐ Global/regional integration/coordination/exchange (e.g. regional knowledge platform)

Thematic Focus

- ☐ Technology development for/use of plastic alternatives (e.g. biodegradable plastics)
- ☐ Sustainable/circular product design (e.g. improved durability, reparability, recyclability)
- ☐ Sustainable/circular business model creation (e.g. servitization of products)
- ☐ Extended Producer Responsibility
- ☐ Recycling system
- ☐ Proper waste management
- ☐ Prevention of littering, illegal dumping and unintentional waste into environment
- ☐ Collection/removal of plastic litter from the natural environment (e.g. beach clean-ups, retrieval of fishing gear...etc.)
- ☐ Education, awareness-raising and human behaviour related
- ☐ Promotion of private sector engagement/actions
- ☐ Monitoring/estimation of plastics/microplastics leakage to the natural environment and/or flows
- ☐ Scientific research
- ☐ Monitoring of country policy status related to MPL
- ☐ Others (please specify):

Brief description:

Projects and Initiatives

Please tell us the number of major programmes, projects and/or initiatives run by your organisation in support of national, city and business...etc. towards MPL abatement.

Also, please provide their names, geographical focus and details.

* If you have multiple programmes/projects/initiatives, please copy and paste the below boxes to add new entries. (Please choose multiple options if applicable.)

Number of major programmes, projects and/or initiatives related to MPL:

<Please copy & paste the below boxes from here to add more entry>

Programme/Project/Initiative #1

Name:

Geographical Focus

- ☐ Global
- ☐ Regional
- ☐ Africa ☐ Middle East and North Africa ☐ South Asia ☐ Central Asia
- ☐ Oceania ☐ Latin America and Caribbean ☐ South East Asia ☐ Other:
- ☐ Specific country (Please provide names of target countries):

Partners of Focus

- ☐ National Government ☐ City Government ☐ Business ☐ CSO
- ☐ Academia /Educational Institutions ☐ Others

Name (if applicable):

Approach

- ☐ Institutional development
- ☐ Development of laws, regulations, strategies, action plans, indicators...etc.
- ☐ Capacity Development
- ☐ Finance:
- ☐ Data and Knowledge development
- ☐ Global/regional integration / coordination / exchange (e.g. regional knowledge platform)

Thematic Focus

- ☐ Technology development for / use of plastic alternatives (e.g. biodegradable plastics)
- ☐ Sustainable/circular product design (e.g. improved durability, reparability, recyclability)
- ☐ Sustainable/ circular business model creation (e.g. servitization of products)
- ☐ Extended Producer Responsibility
- ☐ Recycling system
- ☐ Proper waste management
- ☐ Prevention of littering, illegal dumping and unintentional waste into environment
- ☐ Collection/removal of plastic litter from the natural environment (e.g. beach clean-ups, retrieval of fishing gear...etc.)
- ☐ Education, awareness-raising and human behaviour related
- ☐ Promotion of private sector engagement/actions
- ☐ Monitoring/estimation of plastics/microplastics leakage to the natural environment and/or flows
- ☐ Scientific research
- ☐ Monitoring of country policy status related to MPL
- ☐ Others (please specify):

Brief description:

<Please copy & paste the boxes below from here to add more entry>

Programme/Project/Initiative #2

Name:

Geographical Focus

- ☐ Global
- ☐ Regional
- ☐ Africa ☐ Middle East and North Africa ☐ South Asia ☐ Central Asia
- ☐ Oceania ☐ Latin America and Caribbean ☐ South East Asia ☐ Other:
- ☐ Specific country (Please provide names of target countries):

Partners of Focus

- ☐ National Government ☐ City Government ☐ Business ☐ CSO
- ☐ Academia/Educational Institutions ☐ Others

Name (if applicable):

Approach

- ☐ Institutional development
- ☐ Development of laws, regulations, strategies, action plans, indicators...etc.
- ☐ Capacity Development
- ☐ Finance:
- ☐ Data and Knowledge development
- ☐ Global/regional integration/coordination/exchange (e.g. regional knowledge platform)

Thematic Focus

- ☐ Technology development for/use of plastic alternatives (e.g. biodegradable plastics)
- ☐ Sustainable/circular product design (e.g. improved durability, reparability, recyclability)
- ☐ Sustainable/circular business model creation (e.g. servitization of products)
- ☐ Extended Producer Responsibility
- ☐ Recycling system
- ☐ Proper waste management
- ☐ Prevention of littering, illegal dumping and unintentional waste into environment
- ☐ Collection/removal of plastic litter from the natural environment (e.g. beach clean-ups, retrieval of fishing gear...etc.)
- ☐ Education, awareness-raising and human behaviour related
- ☐ Promotion of private sector engagement/actions

- ☐ Monitoring/estimation of plastics/microplastics leakage to the natural environment and/or flows
- ☐ Scientific research
- ☐ Monitoring of country policy status related to MPL
- ☐ Others (please specify):

Brief description:

<Please copy & paste the above table to add more programmes/projects/initiatives below>

Projects and Initiatives

Please see below the top eight challenges in implementing MPL actions, reported by respondent countries in our report last year.

Does your organisation currently have any activities, services, knowledge products, financing schemes to assist countries/regions address these challenges? Or is your organisation planning any of the above in the future? If yes, please select applicable options below and provide a brief description for each. (You can simply provide the names of programmes, projects, initiatives explained in earlier section)

- ☐ Data collection related to marine plastic litter
- ☐ Recycling system improvement
- ☐ Lack of financial incentives for waste treatment in general
- ☐ Lack of financial incentives for technology development
- ☐ Lack of awareness among citizen, business, local government
- ☐ Proper waste management system (including lack of local capacity)
- ☐ Data collection related to waste in general
- ☐ Others (Please elaborate them in the space below)

Further information

Provide further information you wish to share in the report, such as the link to your website, name of recently published reports and online materials and their URLs, if any.

Brief description:

Thank you for your participation.
Joint Project Team for Preparation of 7th G20 MPL Report