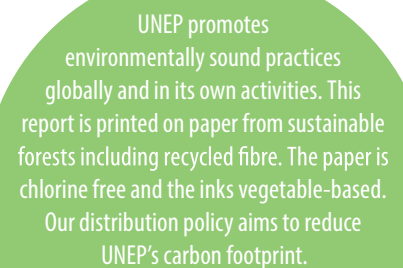


**Legal Limits on Single-Use
Plastics and Microplastics:
A Global Review of National
Laws and Regulations**

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Legal Limits on Single-Use Plastics and Microplastics: A Global Review of National Laws and Regulations

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TABLE OF CONTENTS

Acknowledgements	iv
Key Findings	3
Executive Summary	3
Glossary Of Terms	4
Introduction	6
Methodology	8
Plastic Bags	10
Single Use Plastics	10
Key Findings	10
Microbeads	11
An Overview Of Regulatory Approaches Controlling Plastic Bags	12
Regulatory Approaches	13
Bans Or Restrictions	13
Thickness Requirement	17
Material Composition Or Type	19
Production Volume Or Number Restrictions	21
Promotion Of The Use By Consumer Of Reusable Bags	21
Exemptions From Plastic Bag Ban	22
Market-Based Instruments	34
Return, Collection, Recycling And Disposal Of Plastic	41
Extended Producer Responsibility	41
Recycling Targets	44
Fines Related To Plastic Bag Legislation	45
City Level Regulation Of Plastic Bags	46
Regulatory Approaches	47
An Overview Of Regulatory Approaches Controlling Single Use Plastic Items	47
Market-Based Instruments	55
Taxes On Manufacturers Or Producers, Importers, And Retailers	55
Regulation Of Single-Use Plastic Disposal	57
Extended Producer Responsibility	57
Deposit-Refund Schemes	61
Recycling Mandates	63
An Overview Of Regulatory Approaches Controlling Microbeads	70
Characteristics Of The National Laws And Regulations	72
Definition Of Microbead	73
Prohibition Of Use And Manufacture	73
Type Of Products Covered	74
Exemptions	76
Phase In Dates	76
Countries With Proposed Laws	77
Regional Government Support For Microbead Bans	82
Other Voluntary Approaches	83
Conclusions	84
Recommendations:	86
Annex	87
References	91
Secondary Sources:	108
End Notes	111

Tables

Table 1: Plastic Bag Bans or Restrictions.....	14
Table 2: Countries with Thickness Thresholds for Plastic Bags.....	18
Table 3: Regional Distribution of Countries with Thickness Requirements for Plastic Bags.....	18
Table 4: Regional Distribution and Type of Plastic Bag Material Composition Requirement.....	20
Table 5: Countries with Mandates for Reusable Bags.....	22
Table 6: Types of Exemptions from Plastic Bag Bans.....	23
Table 7: Country Specific Narratives on plastic bags: Latin American and the Caribbean.....	24
Table 8: Country Specific Narratives Plastic Bags: Africa.....	25
Table 9: Country Specific Narratives for Plastic bags: Europe.....	28
Table 10: Country Specific Narratives for plastic bags: Asia and Pacific.....	30
Table 11: Country specific narratives Plastic Bags: Western Asia.....	33
Table 12: Country specific narratives plastic bags: Canada and USA.....	33
Table 13: Countries which have proposed new legislation on plastic bags as of July 2018.....	33
Table 14: Countries which have a tax on manufacture/ production/import of plastic bags.....	35
Table 15: Countries which charge a levy or fee for plastic bags at the national level on the consumer.....	36
Table 17: Country examples of the regulation of plastic bags through levies or fees.....	38
Table 18: Examples of EPR rules that apply to packaging and plastic bags.....	42
Table 19: Regional distribution of countries that include EPR in the regulation of plastic bags.....	43
Table 20: Regional distribution of countries that require recycling within the regulation of plastic bags.....	44
Table 21: Examples of fines related to plastic bags within Legislation.....	45
Table 22: Polymer types and commonly associated plastic products.....	47
Table 23: National bans and restrictions on single-use plastics.....	51
Table 24: Bans and Restrictions by Region.....	53
Table 25: Types of taxation on single-use plastics.....	56
Table 26: Regional distribution of countries with Extended Producer Responsibility.....	59
Table 27: Examples of EPR rules from different countries.....	60
Table 28: Countries with Mandated Deposit-Refund Schemes.....	61
Table 29: Regional Distribution of Countries with Recycling Mandates.....	64
Table 30: Examples of Country Narrative of Recycling Mandates.....	65
Table 31: Countries with Fiscal Incentives for Single-Use Plastics Recycling.....	66
Table 32: Types of recycling mandates, both specific to single-use plastics or general mandates that implicitly include single-use plastics as solid waste.....	67
Table 33: Microbead Laws and Regulations.....	72
Table 34: Definitions of microbeads in national laws or regulations.....	73
Table 35: Type of prohibitions limiting microbeads use in national laws and regulations.....	74
Table 36: Type of products covered under national laws and regulations limiting the use and sale of microbeads.....	75
Table 37: Type of Product covered in country national law or regulation.....	76
Table 38: Type of exemption of microbead containing product in country laws and regulations.....	76
Table 39: Dates when control of microbead use takes effect in countries with laws and regulations.....	77
Table 40: Countries organized by different type of voluntary initiative.....	79
Table 41: Summary of the voluntary approaches taken by each country.....	80
Table 42: Plastic Bag Indicators.....	87
Table 43: Single Use Plastics Indicators.....	88
Table 44: Microbead Indicators.....	90

Figures

Figure 1 Countries with National Legislation on Plastic Bags.....	12
Figure 2 Types of National Restrictions or Bans.....	16
Figure 3 Number of Countries with Partial Bans.....	17
Figure 4 Regional Disaggregation of Reusable Bag Regulations.....	22
Figure 5 Countries with Levies and Fees according to Type.....	34
Figure 6 Countries with laws that provide tax breaks for manufacturers to recycle or produce reusable bags.....	37
Figure 7 Number of countries with characteristics of extended producer responsibility.....	42
Figure 8 Number of bans by type.....	49
Figure 9 Bans on Specific Products.....	55
Figure 10 Regional Distribution of Countries with and without microbead laws.....	71
Figure 11 Countries that do and do not have national level laws or regulations controlling the use of microbeads.....	71
Figure 12 Number of Countries with different types of microbead prohibitions.....	74
Figure 13 Number of countries disaggregated by voluntary approach to the control of microbeads.....	79
Figure 14 Voluntary measures to control microbeads disaggregated by region.....	80

Boxes

Box 1: European Union Regional Initiatives to Reduce Plastic Waste.....	54
Box 2: Selected Examples of Subnational Action.....	54
Box 3: Examples of proposed legislation to restrict single-use plastics.....	69
Box 4: Examples of subnational laws regulating the use and sale of microbead containing products.....	72

EXECUTIVE SUMMARY

This report provides a global overview on the progress of countries in passing laws and regulations that limit the manufacture, import, sale, use and disposal of selected single-use plastics and microplastics which have a great impact in the production of marine litter

It is based on a review of national legally-binding instruments that include bans and restrictions, taxes and levies, and waste management measures to enhance disposal, encourage reuse and recycling, and promote alternatives to plastic products. The report includes three sections: 1) plastic bags, 2) other single-use plastics, and 3) microbeads. It seeks to provide a more thorough understanding of the scope and types of regulatory approaches policymakers are employing to address plastic pollution. It does not, however, assess the effectiveness of the implementation or enforcement of these measures. It also does not comprehensively assess action at the subnational level, though it does provide a few highlights of measures that states and cities are taking. The report should enable future research by enhancing the understanding of existing legal requirements to prevent plastic pollution at the country level.

This research provides insights on:

- The extent to which bans are applied to the manufacturing, use, distribution, import, or export of single-use plastic products, in addition to whether

they apply to certain products, materials or production processes, or use in specific industries (such as food service);

- The type of incentives and disincentives that have been enacted—such as taxes and fees—and whether they have been applied at the production, consumption, or disposal stage;
- Requirements such as extended producer responsibility to promote a circular economy approach to plastic waste;
- The extent to which national waste management and recycling laws are applied to plastic waste; and
- For microplastics only, an overview of voluntary measures used to limit use.

Key Findings

As of July 2018, one hundred and twenty-seven (127) out of 192¹ countries reviewed (about 66%) have adopted some form of legislation to regulate plastic bags. The first regulatory measures specifically targeting plastic bags were enacted in the early 2000s, gradually increasing throughout

the decade, with many countries enacting restrictions in the past few years. Plastic bags regulations include restrictions on the manufacture, distribution, use, and trade of plastic bags, taxation and levies, and post-use disposal. The regulations vary considerably in their comprehensiveness, but the most common form is the restriction on free retail distribution.

Twenty-seven (27) countries have enacted legislation banning either specific products (e.g. plates, cups, straws, packaging), materials (e.g. polystyrene) or production levels.

Twenty-seven (27) countries have instituted taxes on the manufacture and production of plastic bags while thirty (30) charge consumers fees for plastic bags at the national level.

Forty-three (43) countries have included elements or characteristics of extended producer responsibility for plastic bags within legislation.

Sixty-three (63) countries have mandates for extended producer responsibility for single-use plastics, including deposit-refunds, product take-back, and recycling targets.

As of July 2018, eight out of 192 countries worldwide (4%) have established bans of microbeads through national laws or regulations. These countries are Canada, France, Italy, Republic of Korea, New Zealand, Sweden, the United Kingdom of Great Britain and Northern Ireland, and the United States of America. An additional four countries - Belgium, Brazil, India, and Ireland - have proposed new laws or regulations

banning microbeads at the national level. The European Union has also started a process to restrict the intentional addition of microplastics to consumer and professional use products.

Seven out of eight of the countries with laws or regulations controlling the use and/or manufacture of microbeads include only a subset of personal care products documented to contain microbeads. New Zealand's microbead law however not only includes personal

care wash-off products, it also regulates abrasive household, car and industrial cleaning products.

The information presented in this report documents that countries are using a wide range of methods to regulate single-use plastic bags, plastic single use items, and microplastics containing products at the national level.

These approaches vary by region, countries, and type of plastic product, and include bans, market

and trade-based mechanisms, and voluntary measures. As awareness and concern over marine plastic litter and microplastics continues, controlling the manufacture, use, and disposal of plastic products will help in particular contribute to Sustainable Development Goal 14.1.² Learning from the experiences of countries that have taken important steps, like bans, restrictions, taxes and levies, will help further momentum to reduce marine litter and protect the world's precious water resources.

GLOSSARY OF TERMS

PLASTIC BAGS

Plastic Carrier Bag - carrier bags, with or without handle, made of plastic, which are supplied to consumers at the point of sale of goods or products.

Lightweight plastic carrier bags - plastic bags with a wall thickness below 50 microns.

Very lightweight plastic carrier bags - plastic bags with a wall thickness below 15 microns which are required for hygiene purposes or provided as primary packaging for loose food when this helps to prevent food wastage.

Reusable packaging – packaging, including plastic bags, that are conceived and designed to accomplish within its life cycle a minimum number of uses for the same purpose for which it was conceived.

Recyclable packaging – packaging, including plastic bags, that can be reprocessed in a production process of the waste materials for the original purpose or for other purposes including organic recycling but excluding energy recovery.

Biodegradable - packaging in which the waste shall be of such a nature that it is capable of undergoing physical, chemical, thermal or biological decomposition such that most of the finished compost ultimately decomposes into carbon dioxide, biomass and water.

Compostable – packaging waste that can be recycled through a process of organic recovery comprised of composting and anaerobic digestion.

Extended Producer Responsibility - an environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle. It has two related features: (1) the shifting of responsibility, physically and/or economically (fully or partially), upstream toward the producer and away from municipalities for the treatment or disposal of post-consumer products; and (2) providing incentives to producers to incorporate environmental considerations in the design of their products.

Sources: European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste; Directive (EU) 2015/720 of the European Parliament and of the Council of 29 April 2015 amending Directive 94/62/EC; Extended Producer Responsibility: A Guidance Manual for Government, OECD 2001.

SINGLE USE PLASTIC

Single-use plastics - often also referred to as disposable plastics, are commonly used plastic packaging including items intended to be used only once before they are thrown away or recycled, e.g., grocery bags, food packaging, bottles, straws, containers, cups, cutlery, etc. **Packaging** - all products made of any materials of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer. 'Non-returnable' items used for the same purposes shall also be considered to constitute packaging.

Deposit-Refund System – a system that combines a tax on product consumption with a rebate when the product or its packaging is returned for recycling.

Source: European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste; Directive (EU) 2015/720 of the European Parliament and of the Council of 29 April 2015 amending Directive 94/62/EC.

MICROBEADS

Microbeads – Man made plastic particles intentionally added to consumer products, typically less than or equal to 5 mm in size. Microbeads can vary in chemical composition, size, shape and density.

Microplastics – generic terms for small pieces of plastic under 5 mm

Primary microplastics- typically used to refer to microplastics originally manufactured to be that size. Primary microplastics can include but are not limited to microbeads as they can also refer to industrial plastic powders and pellets.

Secondary microplastics – Small particle pieces that have resulted from the fragmentation and weathering of larger plastic items.

Adapted from IMO/ FAO/ UNESCO-IOC/ UNIDO/ WMO/ IAEA/UN/ UNEP. UNDPP Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) 2015.

INTRODUCTION

Marine plastic litter is gaining heightened global attention as an environmental problem. Each year, more than 8 million tons of plastic ends up in the oceans, wreaking havoc on marine wildlife, fisheries and tourism, and costing at least \$8 billion in damage to marine ecosystems³. World production of plastic materials in 2016 was 280 million tonnes, of which about one third is single-use plastics⁴.

On land, improperly discarded plastics clog drains and waterways, causing floods during rains and creating habitats for disease-carrying vectors such as mosquitoes.⁵

Scientists are also beginning to find evidence of the harm caused by plastics debris that have broken down into tiny particles, or microplastics, to marine life as they enter the human food chain⁶. Scientists have found microplastics in the soil, fish, in freshwater, tap water and even in the air we breathe⁷. The problem is increasingly visible and difficult to ignore.

Plastic bags, disposable single use plastic items, and microbeads are three important sources of plastic pollution. Plastic bags have been described as the world's number one consumer item⁸. Plastic packaging is mostly single-use, especially in business-to-consumer applications, and a majority of it is discarded the same year it is produced. In 2015, plastic packaging waste accounted for

47% of the plastic waste generated globally, with half of that appearing to come from Asia. While China remains the largest worldwide generator of plastic packaging waste, the United States of America is the largest generator of plastic packaging waste on a per-capita basis, followed by Japan and the European Union.⁹ Single-use plastics is an umbrella term for different types of products that are typically used once before being thrown away or recycled. These include, among other items, grocery bags, food packaging, bottles, straws, containers, cups and cutlery. Since the 1950s, growth in the production of plastic has largely outpaced that of any other material, with a global shift from the production of durable plastics to single-use plastics (including packaging). The production of plastic is largely reliant on fossil hydrocarbons, which are non-renewable resources. If the growth in plastic production continues at the current rate, by 2050 the plastic industry may account for 20% of the world's total oil

consumption. More than one-fourth of the resins globally used in the production of single-use plastics are manufactured in Northeast Asia (China, Hong Kong, Japan, Republic of Korea and Taiwan). This is followed by North America, the Middle East and Europe.¹⁰

Microbeads are synthetic plastic particles intentionally added to consumer and industrial products usually for their abrasive or exfoliating properties and can vary in chemical composition, size, shape, and density. They may also be used in other consumer products, including household cleaning products, printer toners, medical applications and in industrial processes such as abrasive media for blasting, oil and gas exploration, textile printing, and automotive molding.¹¹ Microbeads are typically non-biodegradable and discarded down the drain into the sludge and waterways where they can further contaminate aquatic habitats and food chains¹². One study has found that approximately 8 trillion microbeads per day are released into the waterways in the United States of America alone¹³. These, as well as other microplastics, adsorb pollutants and are many times ingested by aquatic organisms¹⁴.

Political leaders are taking notice of the marine plastic litter and microplastics¹⁵ problem. The United Nations Environment Assembly has adopted three resolutions on marine litter and microplastics. The resolutions stressed the importance of: (i) long-term elimination of discharge of litter and microplastics

to the oceans, (ii) the development of regional and national marine litter action plans, and (iii) greater collaboration and coordination with/through the Global Partnership on Marine Litter. The second session of United Nations Environment Assembly also commissioned the development of an assessment of the effectiveness of relevant international, regional and sub-regional governance strategies and approaches to combat marine plastic litter and microplastics. The options presented in this report are under discussion by countries and stakeholders and will be further considered by the fourth session of the United Nations Environment Assembly which will take place in March 2019.

An international coalition was created at the initiative of France to coordinate action to promote the elimination of single-use plastic bags and exchange expertise and best practices, such as existing regulations aiming

at reducing single-use plastic bags consumption and marketing restrictions of products leading to marine litter. As of July 2018, eleven countries joined the coalition.¹⁶

In 2017, the United Nations launched the #CleanSeas campaign, which in a little over a year has garnered commitments from over 50 countries representing over 60% of the world's coastline, including high profile commitments from India to eliminate single-use plastics by 2022¹⁷. In its G7 presidency, Canada has made marine pollution a central issue and along with the governments of France, Germany, Italy, the United Kingdom, and the European Union launched an Ocean Plastics Charter with timebound targets to reduce plastic pollution and support sustainable consumption.¹⁸

This report provides a global overview of national regulatory frameworks adopted by 192 countries to control plastic

bags, single-use plastics and microplastics pollution through national laws. It provides a snapshot of the types of regulation currently existing for each stage of the plastic lifespan, from manufacture or production, to use, and finally disposal. It is intended for use as a reference for countries and other interested stakeholders seeking to understand the approaches currently being used to address plastic pollution.

METHODOLOGY

The research was conducted by lawyers and legal researchers from research institutions and non-government organizations (NGOs). A total of 192 countries were reviewed. The research was conducted over a period of six (6) months, from March to August 2018.

The review of national legislation was based on a set of indicators intended to obtain the following information (see the report annex for a list of indicators):

- **Market entry regulation** through manufacturing or production bans, the types of bans and other production restrictions, taxation and fiscal incentives to producers, and exemptions from bans;
- **Retail distribution regulation** through the imposition of fees or levies to consumers and end-users, restrictions or disincentives on use, mandatory alternative reusable products, taxation and fiscal incentives to retailers;
- **Regulation of post-use or disposal** through mandates for product waste collection and recycling, extended producer responsibility, take back or deposit-refund requirements, waste disposal charges and fines for improper disposal;
- **Trade regulation** through import bans or restrictions, types of bans or restrictions, and export bans or restrictions; and

- Additionally, regarding **microbeads**, how it is defined, whether new legislation is being proposed, and government standards and voluntary measures to phase-out the use of microbeads.

The research necessitated the review of a range of legislation, including those that are product specific—plastic bags law, microbeads law, disposable plastics and expanded polystyrene laws, etc. It also includes a review of sector laws including packaging laws, environmental codes, solid waste management laws, investment laws, and tax legislation. The review covered both the principal laws, such as environmental codes and waste law, and implementing regulations and decrees, such as bottle deposit regulations.

As much as possible researchers were contracted from the country or region for which they did research. In cases where this was not possible, researchers were chosen on the basis of experience in using online international legal databases (such as ECOLEX)¹⁹ and government websites and in tracking relevant legislation through the literature and media reports. Researchers were

required to conduct due diligence by reaching out to reliable experts in country, such as focal persons from relevant government agencies or civil society organizations to confirm the data collected or verify the non-existence of legislation. It should be noted that there were cases where no response was obtained from the in-country experts. The work of the researchers was thereafter reviewed and the information checked both for consistency and gaps as well as legal interpretation. The data was then compiled and analyzed across regions and types of regulation to assess the prevalence of different legal measures—bans, market-based instruments, disposal regulations—and progress towards regulating plastics at the global and regional scales. While all attempts were made to ensure comprehensiveness, consistency, and accuracy in the research process, several limitations and caveats are noted below:

- This report is not intended to indicate that any specific regulatory measure (e.g. ban or levy) or regulation of a specific aspect of the plastic product lifecycle (e.g. production or disposal) is the most effective approach to addressing the plastic problem.
- This report examines national or federal level legislation; sub-national (city, municipality, or state) legislation are beyond the scope of the analysis. The research reveals that many countries have sub-national legislation, either as the prevailing approach or combined with national

legislation. Examples are provided for each type of plastic. Similarly, many countries have made policy pronouncement or incorporated measures related to plastic in strategic plans or documents. Where these are not in the form of legislation they are excluded from analysis.

- This report is current up to July 2018. The research shows that in several countries there are proposed or pending legislation respecting one or more of the three types of plastics covered in this research. Not having been formally enacted, proposed or announced regulation are excluded from the analysis, but examples are provided for each plastic type.
- In some countries, the legislation provides a transition period for coming into force or a phase out period for existing plastic products in the market. Where the researchers were able to ascertain the date of entry into force it is included in the report.
- In few cases, public-private partnerships or agreements (for example, product end-of-life), where they are legally-binding, are treated as legislation for purposes of this report.
- This report does not examine the implementation or enforcement of laws and regulations in the countries assessed.
- “No law found” does not necessarily mean that no national legislation on

plastics exists in the country. Researchers made a good faith effort to locate laws and regulations using online databases, government websites, and contacting government officials, but in some cases could not confirm the existence of the law.

- The set of indicators developed for the legal analysis is based on an initial review of existing legislation and published reports relating to plastics and marine litter. The indicators did not undergo external review by thematic experts. Similarly, the research findings for each country did not undergo peer-review by in-country experts.
- The indicators were designed as yes or no questions in order to facilitate analysis. To capture additional information, the researchers were required to submit a summary of the findings in narrative form. However, in some cases (particularly where there are no plastic-specific legislation), some of the legal nuances may have been missed.
- For non-English language laws, the researchers used official English translations as much as possible. In cases where official English translation were not found, non-official translations and Google Translate were used for the analysis.

KEY FINDINGS

The report findings are based on an evaluation of national laws and regulations.²⁰ Based on our legal analysis, the following key findings for plastic bags, other single use plastic items, and microbeads were developed and are discussed throughout the report.

Plastic Bags

- **Key Plastic Bag Finding #1:** As of July 2018, one hundred and twenty-seven (127) out of 192 countries reviewed (about 66%) have adopted some form of legislation to regulate plastic bags. The first regulatory measures specifically targeting plastic bags were enacted in the early 2000s, gradually increasing throughout the decade, with many countries enacting restrictions in the past few years.
- **Key Plastic Bag Finding #2:** Among the countries that regulate plastic bags, interventions to reduce the manufacture, distribution, use and trade of plastics bags vary considerably in their comprehensiveness. But the most common form of regulation is the ban on free retail distribution, which eighty-three (83) countries have adopted. Manufacturing and import bans follow, with sixty-one (61) countries having adopted this form of regulation.
- **Key Plastic Bag Finding #3:** Manufacturing and import

regulations include governing the thickness and material content of allowable plastic bags.

- **Key Plastic Bag Finding # 4:** To date only twenty- seven (27) countries have instituted taxes on the manufacture and production of plastic bags while thirty (30) charge consumers fees for plastic bags at the national level.
- **Key Plastic Bag Finding #5:** Forty-three (43) countries have included elements of extended producer responsibility related to plastic bags within legislation.
- **Key Plastic Bag Finding #6:** Fifty-one (51) countries have adopted legislative requirements to implement recycling targets relevant for plastic bags.

Single Use Plastics

- **Key Single Use Plastics Findings #1:** Twenty-seven (27) countries have enacted through law some type of ban on single-use plastics—either on specific products (e.g. plates, cups, straws, packaging), materials

(e.g. polystyrene) or production levels.

- **Key Single Use Plastics Findings #2:** None of these bans are “total”. In other words, exceptions exist for certain products or materials, such as for so-called biodegradable plastics.
- **Key Single Use Plastics Findings #3:** Small Island States have been disproportionately more likely to enact bans on single-use plastics—37% (10 countries) of national bans have come from these countries.
- **Key Single Use Plastics Findings #4:** Twenty-nine (29) countries have enacted some type of tax on single-use plastics, either as a special environmental tax, waste disposal fees or charges, or in the form of higher excise taxes for single-use plastics.
- **Key Single Use Plastics Findings #5:** Sixty-three (63) countries have enacted Extended Producer Responsibility (EPR) measures, such as product-take back schemes, deposit-refund, and waste collection and takeback guarantees
- **Key Single Use Plastics Findings #6:** The most common legal measures for single use plastics are recycling requirements and solid waste management laws which may implicitly include single-use plastics under household or commercial waste or explicitly set targets for plastics

Microbeads

- **Key Microbead Finding #1:** As of July 2018, eight (8) out of 192 countries worldwide (4%) have established legally binding bans of microbeads through national laws or regulations. These countries are Canada, France, Italy, Republic of Korea, New Zealand, Sweden, the United Kingdom of Great Britain and Northern Ireland, and the United States of America.
- **Key Microbead Finding #2:** Seven (7) out of eight of the countries with laws or regulations controlling the use and/or manufacture of microbeads include only a subset of personal care products documented to contain microbeads. New Zealand's microbead law however not only includes personal care wash-off products, it also regulates abrasive household, car and industrial cleaning products.
- **Key Microbead Finding #3:** The laws and regulations used to control microbeads share a number of similarities in definition of microbead, product types covered, and the size of microbead controlled; However, there are also important differences. Three countries ban the selling of products with microbeads, while three (3) ban both the manufacture and selling of products. Two countries prohibit the importing, manufacturing, and selling of personal care products containing microbeads. There are also exemptions included in some but not all of the laws or regulations.
- **Key Microbead Finding #4:** As at July 2018, four (4) countries - Belgium, Brazil, India, and Ireland - have proposed new laws or regulations banning microbeads at the national level. The European Union has also started the process to restrict the intentional addition of microplastics to consumer and professional use products.
- **Key Microbead Finding #5:** In addition to national binding laws and regulations, government, companies, and civil society organizations are utilizing a range of voluntary approaches to reduce the number of products containing microbeads. These include government and industry agreements, industry and company specific voluntary phaseouts, regional government statements of support, and ecolabeling.

AN OVERVIEW OF REGULATORY APPROACHES CONTROLLING PLASTIC BAGS

This section provides a global overview of countries that have established some form of national legislation to regulate plastic bags.

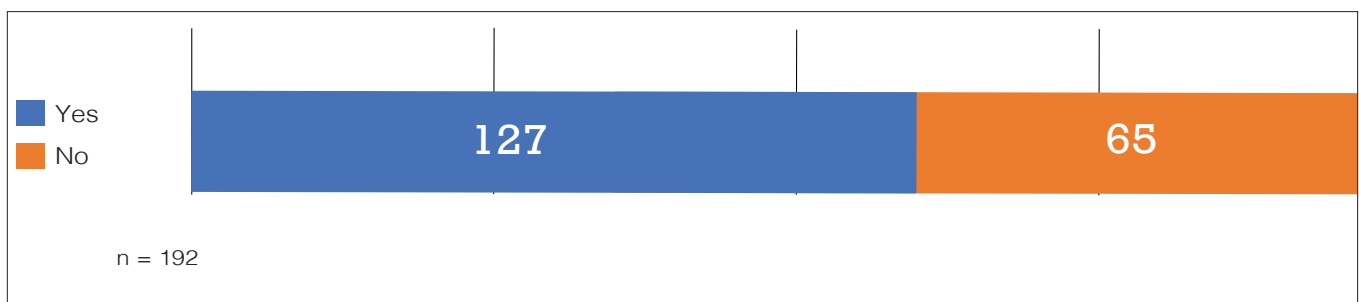
Plastic Bag Finding #1: To date, 127 out of 192 countries reviewed (66%) have adopted legislation to manage plastic bags. The first regulatory measures specifically targeting plastic bags were enacted in the early 2000s, gradually increasing throughout the decade, with many countries enacting restrictions in the past few years.

To date, one hundred twenty-seven (127) countries worldwide have enacted some form of national legislation²¹ to address the problem of plastic bags. This number represents about sixty-six percent (66%) out of one hundred and ninety-two (192) countries examined, indicating that the world has achieved progress towards addressing this global challenge. Notably, in some countries without national legislation, sub-national governments (states, cities, and municipalities) have stepped up to the plate and enacted state and/or local-level legislation that have effectively reduced plastic bag use. Some examples of sub-national legislation are provided below, but a comprehensive review of such state and city level initiatives are excluded for purposes of this report. On the other hand, it is also worth noting that some states in

the U.S. have adopted preemptive legislation preventing states from enacting plastic bag bans²².

In terms of regional trends, Europe leads the way with 44 countries having enacted some form of legislation to regulate plastic bags, including all but one of the European Union (EU) member states (except Belgium, which has a regional approach), transposing into domestic law the EU Directives on the management of packaging waste (Directive 94/62/EC on Packaging and Packaging Waste and Directive 2015/720 as regards the consumption of lightweight carrier bags). African nations also have initiated progressive reforms with 37 countries regulating plastic bags, whereas 27 countries in the Asia Pacific region have plastic bag legislation of some form. Fourteen (14) countries in Latin America and

Figure 1 | Countries with National Legislation on Plastic Bags



the Caribbean and five (5) countries in West Asia also regulate plastic bags. In North America, the trend in the U.S. and Canada is towards regulating plastic bags through sub-national legislation and public and private sector collaboration, with states and cities as well as major retailers at the forefront of reducing plastic bag usage and waste. Figure 1 shows the number of countries worldwide with national-level

Key Plastic Bag Finding #2: Among the countries that regulate plastic bags, interventions to reduce the manufacture, distribution, use, and trade of plastics bags vary considerably globally in their comprehensiveness. But the most common form of regulation is the ban on free retail distribution, which eighty-three (83) countries have adopted. Manufacturing and import bans follow, with sixty-one (61) countries having adopted this form of regulation.

legislation on plastic bags and those without.

Legislation to deal with the problem of plastic bags cover some or all stages of the plastic bag life cycle, from its production and introduction to the domestic market to post-consumer use and disposal. The regulatory approaches range from bans or restrictions on supply and distribution, taxation, levies on consumers or end-users, and extended producer responsibility. The prevailing approach is the restriction of retail distribution, either as a stand-alone approach or as part of a broader strategy to curb plastic bag pollution. The various regulatory approaches are discussed below.

Regulatory Approaches

This section surveys the regulatory approaches to address the problem of plastic bag pollution. The two main mechanisms employed by national governments are bans or restrictions on supply and distribution and market-based instruments such as taxes or levies.

Bans or Restrictions

Of the 127 countries with some form of plastic bag legislation, ninety-one (91) countries, representing about 72 percent (72%), have some type of ban or restriction on the manufacture or production, importation, and retail distribution of plastic bags. The region with the greatest number of countries adopting this approach is Africa, with thirty-four (34) countries, closely followed by Europe with twenty-nine (29) countries. The Asia and

Pacific region have seventeen (17) countries regulating domestic market entry, while Latin America and the Caribbean has six (6) countries and West Asia has five (5) countries.

Eighty-four (84) countries restrict the retail distribution of plastic bags, mostly in tandem with restrictions on manufacture or production and importation. Of the 91 countries regulating market entry of plastic bags, fifty-five (55) countries regulate all three aspects of market entry: manufacture or production, importation, and retail distribution, while ten (10) countries restrict importation and retail distribution. Nineteen (19) countries ban free retail distribution alone. On the other hand, seven (7) countries target only the manufacture and importation of plastic bags, of which three countries, Lichtenstein, Austria, and Lebanon restrict manufacture or production, three (3) other countries, Algeria, Japan, and Portugal restrict importation, and the Republic of Congo limiting both manufacture and importation. Some countries, such as Finland, while not having enacted legislation, has voluntary agreement between the Ministry of Trade and the Federation of Finnish Commerce to reduce the use of plastic carrier bags. Table 1 disaggregates countries according to the different types of bans or restrictions. Countries that impose levies or fees to customers for plastic bags are indicated by an asterisk (*). Map 1 follows, providing a visual overview of the distribution of market entry restrictions across the world's regions.

Table 1: Plastic Bag Bans or Restrictions

Type of Restriction	Countries				
	Africa	Asia & Pacific	Europe	LAC	West Asia
Manufacture, Retail Distribution & Importation (*levy collected on Retail Distribution)	Benin	Bangladesh	Albania	Haiti	Jordan
	Botswana	Cambodia	France		Saudi Arabia
	Burkina Faso	China*	Italy*		United Arab Emirates
	Cabo Verde	Nepal*	Monaco		Yemen
	Cameroon	Marshall Islands	Netherlands*		
	Côte d'Ivoire	Mongolia	Romania		
	Democratic Republic of Congo	Pakistan	San Marino		
	Eritrea	Papua New Guinea*	The former Yugoslav Republic of Macedonia*		
	Ethiopia	Samoa	Turkey*		
	Gambia	Sri Lanka	Uzbekistan*		
	Guinea Bissau	Vanuatu			
	Kenya				
	Madagascar				
	Malawi				
	Mali				
	Mauritania				
	Mauritius				
	Morocco				
	Mozambique				
	Niger				
	Rwanda				
	Senegal*				
	Seychelles				
	South Africa*				
	United Republic of Tanzania				
	Togo				
	Tunisia				
	Uganda				
	Zimbabwe				

Retail Distribution (*with Levy)		Fiji* Republic of Korea*	Bosnia & Herzegovina Croatia* Cyprus* Czech Republic* Estonia* Ireland* Israel* Lithuania Luxembourg* Poland* Republic of Moldova* Slovakia* Slovenia* Spain*	Chile Colombia* Panama	
Manufacture & Importation	Republic of Congo	N/A	N/A	N/A	N/A
Manufacture	N/A	N/A	Lichtenstein Austria	N/A	Lebanon
Importation	Algeria	Japan	Portugal	N/A	N/A
Retail Distribution & Importation (* with Levy on retail distribution)	Chad Djibouti Gabon	Afghanistan Bhutan Palau	Andorra* Greece*	Antigua & Barbuda Paraguay*	N/A

Map 1 | Global Overview of Countries with Bans on the Manufacture, Free Distribution, and Importation of Plastic Bags

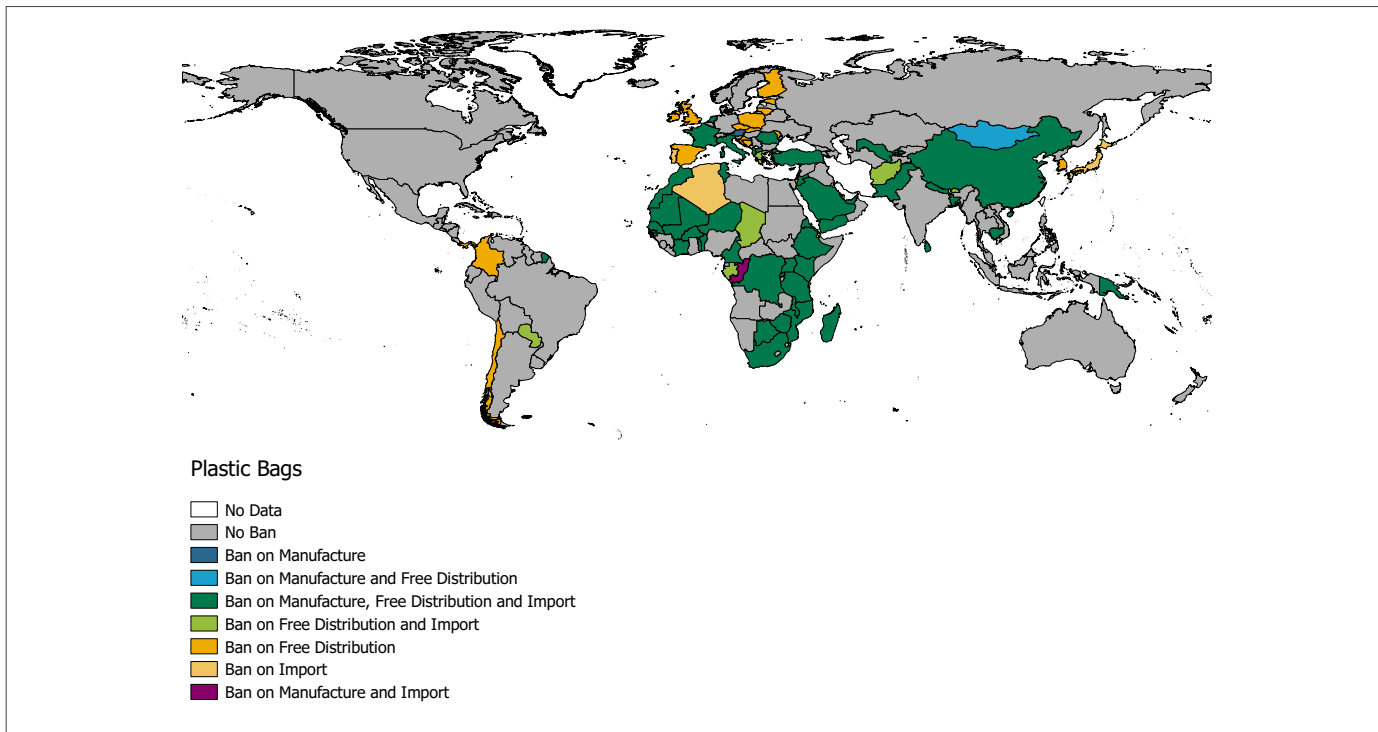
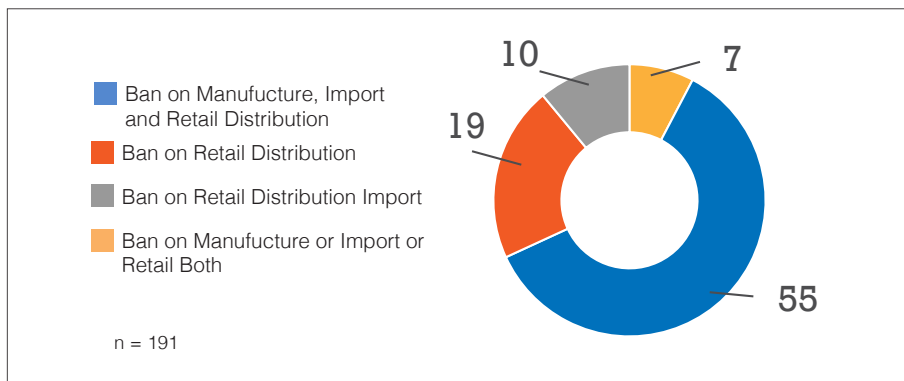


Figure 2 | Types of National Restrictions or Bans



Only a few countries impose total restrictions or bans, defined in this report as a ban on the introduction to the market of any type of plastic bag and/or without any exception for any type of use. The Marshall Islands’ expansive regulatory language calls for a total ban on local manufacture, import and retail distribution. Afghanistan, Bhutan, and Côte d’Ivoire imposed total bans on import and retail distribution, which may still amount to a partial ban if there is local

production. Majority of countries have opted for partial bans or restrictions, mostly in the form of thickness requirements, material composition requirements, or production volume limits. Eighty-nine (89) countries have enacted one or more of these various forms of partial bans. Figure 3 shows the distribution of countries based on the different forms of partial ban. Map 2 shows the regional disaggregation of countries with partial bans.

Map 2 | Total and Partial Bans on the Manufacture, Free Distribution, and Importation of Plastic Bags

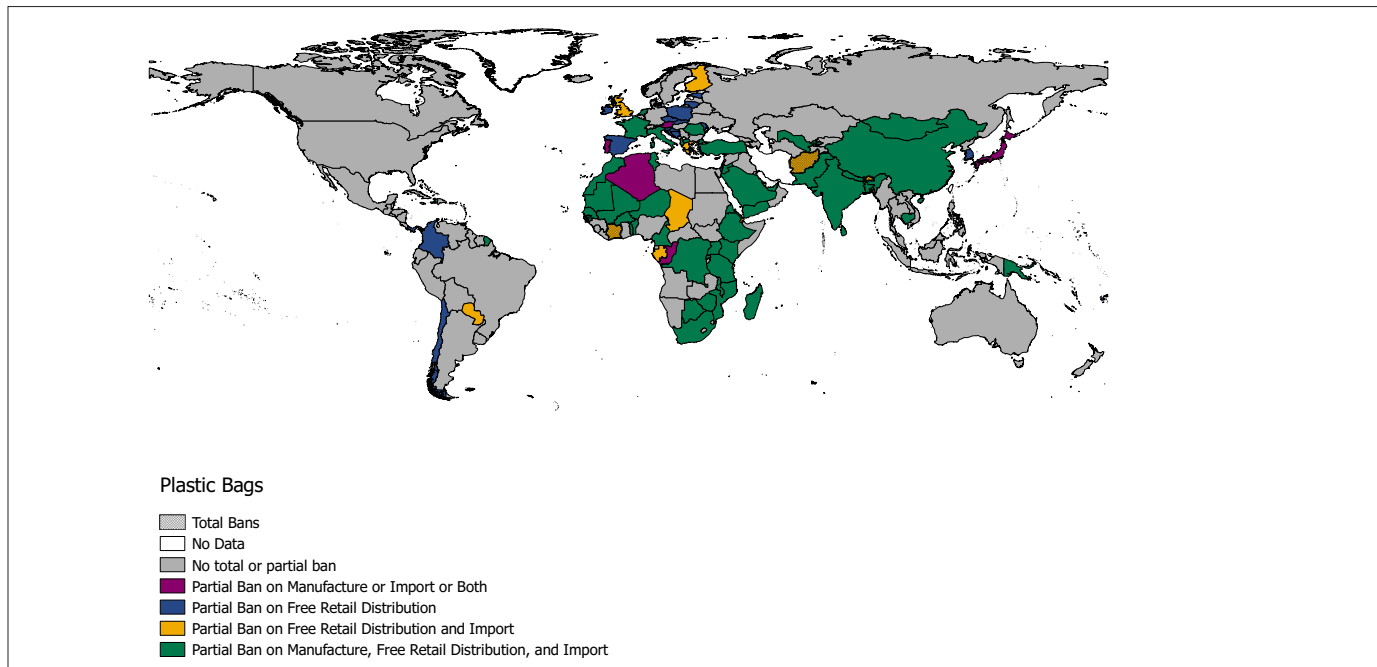
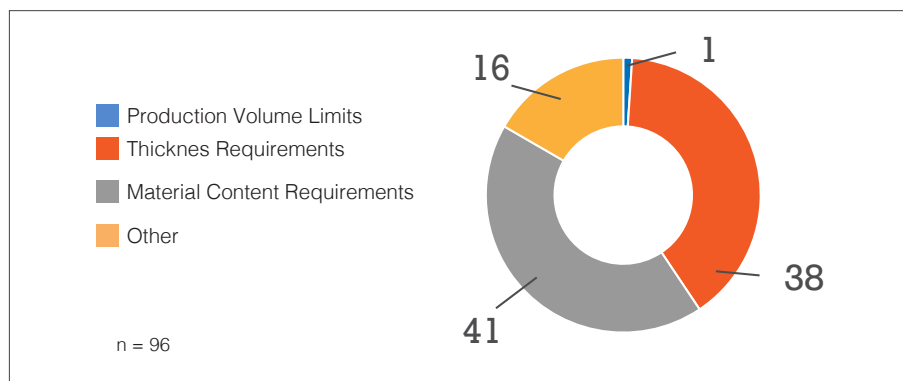


Figure 3 | Number of Countries with Partial Bans



Thickness Requirement

Key Plastic Bag Finding #3: Manufacturing and import regulations include governing the thickness and material composition of allowable plastic bags

Thirty-eight (38) countries regulate the thickness of plastic bags. Of this number, twelve (12) countries ban or impose a levy on plastic bags with a thickness of 50 microns or less, while 10 countries ban or impose a levy on plastic bags with a thickness of 30 microns or less, both classified as lightweight or thin plastic bags. Some countries, such as Senegal, prohibit plastic bags that are less than 30 microns, at the same time mandating a levy on consumers or end-users for plastic bags that

over 30 microns thick. Cambodia does not have an outright ban but rather requires a permit from the ministry of environment for the manufacture or import of plastic bags with thickness of 30 microns, with exemption given for the non-commercial importation of less than 100 kilograms. Pakistan combines a thickness threshold of 50 microns with a requirement of oxo-biodegradability. Similarly, Italy requires very lightweight plastic bags of 15 microns or less to be certified biodegradable and compostable. A number of countries, such as the Republic of Moldova and Uzbekistan, have adopted a progressive phase-out of plastic bags. There is considerable variation in the thickness threshold requirements of other countries. Table 2 shows the countries with the range of thickness regulations for plastic bags. Table 3 summarizes the text of the thickness thresholds disaggregated by region.

Table 2: Countries with Thickness Thresholds for Plastic Bags

15 microns	20-25 microns	30 microns	35-40 microns	50 microns	60 microns	100 microns & above
Uzbekistan	Bangladesh	Albania	Tunisia (40m)	France	Cameroon	Eritrea (100m)
Republic of Moldova*	Botswana	Cambodia	Vanuatu (35m)	India	Yemen	Jordan (200m)
*Exempted from ban	China	Ethiopia		Italy	Malawi	Saudi Arabia (250m)
	Mongolia	Mozambique		Madagascar		
	South Africa	Nepal		Pakistan		
	Sri Lanka (20m)	Senegal		Romania		
		Uganda		Monaco		
		Zimbabwe		Poland		
		Vietnam		UK		
	United Republic of Tanzania		Andorra			
			Portugal			
			Cyprus			

Table 3: Regional Distribution of Countries with Thickness Requirements for Plastic Bags

Region	Country	Thickness Threshold
Africa	Botswana	Ban on plastic bags thinner than 24 microns
	Cameroon	Ban on non- biodegradable plastic bags less than or equal to 60 microns
	Eritrea	Ban on thin plastic bags less than 100 microns
	Ethiopia	Ban on nonbiodegradable plastic bags with a wall thickness of 0.03 millimeters or less
	Madagascar	Ban on plastic bags and bags of thickness less than or equal to 50 Microns
	Malawi	Ban on plastic bags less than 60 microns
	Mozambique	Ban on plastic bags less than 30 microns
	Senegal	Ban on Plastic bags less than 30 microns. Plastic bags greater than or equal to 30 microns, may not be distributed or offered free of charge
	South Africa	Ban on plastic bags with a thickness of 24 microns or less, but local manufacture for export allowed
	United Republic of Tanzania	Ban on plastic bags below 30 microns
	Tunisia	Ban on plastic bags with a thickness of less than 40 microns, or bags of low volumes with a capacity of less than 30 liters
	Uganda	Ban on plastic bags less than 30 microns
Zimbabwe	Ban on plastic bags less than 30 microns	
Asia & the Pacific	Bangladesh	Ban on plastic bags 20 microns or less
	Cambodia	Ban on plastic bags except for plastic bags 0.03 mm or thicker and with a bottom width of at least 25 cm or 10 inches, subject to permit from the ministry of environment
	China	Ban on plastic shopping bags less than 0.025 mm in thickness (ultrathin plastic bags)
	India	Minimum of 50µm (microns), except for bags made of compostable plastic
	Mongolia	Ban on all types of plastic bags 0.025 mm thick or lesser (full ban effective March 1, 2019)
	Nepal	Ban on plastic bags less than 30 microns for small bags (7" X 14") and 40 microns for bigger bags (20 Inches X 35 inches)
	Pakistan	Minimum thickness of oxo-biodegradable plastic products of at least 50 microns

	Sri Lanka	Ban on plastic bags 20 microns or less, unless with written approval from the Central Environmental Authority
	Vanuatu	Ban on plastic bags less than 35 microns thick
	Vietnam	Environmental-friendly bags more than 50 microns are exempt from tax
Europe	Albania	Ban on plastic bags below 30 μ (microns) (15 for each side)
	Andorra	Ban on very lightweight bags less than 15 microns; levy charged to consumers for plastic bags 50 microns or greater
	Cyprus	Lightweight plastic bags with thickness of less than 50 microns shall be subject to a levy to be charged to consumers
	France	Ban on lightweight bags under 50 microns, except compostable bags made of bio-sourced materials. Minimum bio-sourced content of single-use plastic bags to gradually increase from 30% on 1 January 2017 to 60% on 1 January 2025
	Italy	Ban on non-biodegradable lightweight bags less than 50 microns
	Monaco	Ban on plastic bags less than 50 microns thick, except for compostable bags or those made wholly or partly of bio-based materials
	Poland	Ban on free distribution of plastic bags less than 50 microns, but bags less than 15 microns may be distributed for free
	Portugal	Tax on manufacturers and importers of plastic bags with thickness of equal or less than 50 microns
	Republic of Moldova	Ban on free distribution of bags, except very thin bags less than 15 microns. Progressive bag ban stating with bags 50 microns or more from 2019, less than 50 microns from 2020 and less than 15 microns from 2021
	Romania	Ban on thin and very thin plastic bags with a handle is prohibited Thin - under 50 microns, ultrathin under 15 microns
	United Kingdom	Plastic bags not less than 50 microns but not greater than 70 microns are exempt from the levy to consumers
	Uzbekistan	Ban on plastic bags less than 15 microns thick and less than 5 liters capacity from January 1, 2019, and less than 50 microns in thickness and less than 10 liters in capacity starting January 1, 2020
West Asia	Jordan	Ban on plastic bags with thickness of 200 micrometers or less
	Saudi Arabia	Disposable plastic products made of poly-propylene and polyethylene with film thickness of less than or equal to 250 microns that are generally used for packaging, such as carrier bags, wraps and other similar applications, must be of the oxo-biodegradable type and bear the prescribed logo
	Yemen	Ban on manufacture of plastic bags below 60 microns and import of plastic bags below 70 microns

Material Composition or Type

Forty-one (41) countries have instituted some form of regulation on the material composition of plastics bags. Of these countries, 38 imposed bans or phase-outs non-biodegradable plastic bags, or incentivized the production, import, or use of biodegradable and/or compostable bags. Two (2) countries have required a certain type of recycled material: Italy, which also bans non-biodegradable bags, and Turkey. Italy requires

allowable plastic bags intended to carry food products to have at least 30 percent recycled plastics, and other allowable plastic bags to have 10 percent. Similarly, Austria requires that plastic bags must have a certain amount of weight of materials that can be recycled. On the other end of the spectrum, Andorra's plastic bag ban covers biodegradable and compostable bags. Table 4 disaggregates the regional distribution of countries and the type of material composition requirement.

Table 4: Regional Distribution and Type of Plastic Bag Material Composition Requirement

Region	Country	Material Composition Requirement
Africa	Benin	Only biodegradable or compostable plastic bags can be distributed for free
	Burkina Faso	Ban on production, import, marketing and distribution of non-biodegradable plastic packaging and plastic bags
	Cameroon	Manufacture, importation and commercialization of non-biodegradable plastic packages less than or equal to 60microns is prohibited
	Cape Verde	Conventional plastic bags, with the exception of biodegradable, cannot be distributed free of charge in any commercial establishment; conventional plastic bags to be replaced by biodegradable and compostable bags
	Chad	Ban on importation of non-biodegradable plastic packaging
	Côte d' Ivoire	Ban on production, import, marketing, possession and use of plastic bags. Minister of the Environment may exceptionally authorize the use of biodegradable plastic bags
	Djibouti	Ban on non-biodegradable plastic bags
	DRC	Manufacture, import and marketing of non-biodegradable packaging is prohibited
	Ethiopia	Ban on manufacture or importation of any nonbiodegradable plastic bags with a wall thickness of 0.03 millimeters
	Gabon	Ban on non-recyclable plastic bags
	Mali	Ban on production, import, and sale of non-biodegradable plastic bags
	Mauritius	Ban on plastic bags, except biodegradable plastic bags or compostable plastic bags which conform to the appropriate standard
	Niger	Ban on plastic bags, except plastic bags that are certified biodegradable in accordance with the standards
	Seychelles	Ban on manufacturing, importation, distribution of plastic bags except biodegradable bags
	Togo	Ban on production, import, distribution and marketing of non-biodegradable plastic bags and packaging
Tunisia	Ban on production, importation, marketing, possession and distribution, except authorized biodegradable bags	
Asia and the Pacific	Cambodia	Importation and production of bag or packaging material produced from biodegradable or bioplastic substances shall have preferential tax rates
	India	Thickness requirement (50 microns) shall not be applicable to carry bags made up of compostable plastic in conformity with the prescribed standard
	Pakistan	Ban on plastic products which are non-degradable. Disposable plastic bags must be made with oxo-biodegradable plastic technology from a registered supplier
	Palau	Retail establishments shall not provide plastic bags except those that are biodegradable or compostable to their customers
	Papua New Guinea	Ban is on non-biodegradable plastic bags. Biodegradable bags are allowed, and the use of bilum bags, made of organic woven material, is encouraged
	Republic of Korea	Biodegradable plastic bags may be distributed for free
	Samoa	Ban on all plastic bags except biodegradable bags
	Vanuatu	Ban on import of non-biodegradable plastic single-use bags; local manufacturers of plastic bags to use only biodegradable plastics as of January 31, 2018.
	Vietnam	Environmentally-friendly bags with bio-decomposition ability of at least 60% in a period of up to 2 years are exempt from the environmental protection tax

Europe	Albania	Production, marketing, and import of non –biodegradable plastic bags by all economic operators are prohibited
	Andorra	Ban on very lightweight and lightweight oxo-biodegradable, oxo-degradable, biodegradable and compostable plastic bags; plastic bags 50 microns or greater must have 80% minimum recycled content
	Austria	Plastic bags need to be manufactured in a way, that a certain amount of weight of materials, which can be recycled, are used.
	France	Single-use non-compostable plastic bags under 50 microns are forbidden. Minimum bio-sourced content of single-use plastic bags shall gradually increase from 30% from 1 January 2017 to 60% from 1 January 2025
	Greece	Placing on the market and supplying the consumer oxo-degradable plastic carrier bags is prohibited. Incentives to be given to producers of biodegradable and compostable plastic bags
	Italy	Ban on non-biodegradable and non-compostable lightweight plastic carrier bags. Exemption given to reusable bags thicker than 200 microns and made of at least 30% of recycled plastic intended to carry food products or thicker than 100 microns and made of at least 10% of recycled plastics intended to carry good and products different from food
	Lichtenstein	Plastic bags can only be placed on the market, if they were manufactured in a way, that a certain amount of weight of materials, which can be recycled, is used
	The former Yugoslav Republic of Macedonia	Ban on plastic bags except biodegradable bags made in accordance with the prescribed standards for biodegradability
	Monaco	Ban on single-use plastic bags except for the compostable bags and made of, wholly or partly, of bio-based materials, from 30 % minimum from January 1, 2017 to 60% minimum beginning January 1, 2025
	San Marino	Marketing and distribution of plastic carrier bags that do not comply with the applicable European biodegradability requirements set out by technical standards is prohibited
	Turkey	Ban on production, import and putting in the market packaging products Including plastic bags that cannot be recycled or recovered. Plastic bags and packaging must also contain a certain percentage of recycled material, from 4% in 2018 to 8% from 2020 and beyond
Latin America and the Caribbean	Colombia	Plastic bag must contain at least forty percent (40%) of post-consumer or post-industrial recycled material demonstrated according to technical standards
	Paraguay	Gradual replacement of polyethylene bags with biodegradable bags
West Asia	Saudi Arabia	All the disposable products manufactured from polypropylene and polyethylene plastics which are often used for a short time must be OXO degradable then bio-degradable; in accordance with relevant standards
	United Arab Emirates	Manufacturers and suppliers of plastics bags must meet prescribed standards for oxo-degradable bags and distribute in the market only complying products
	Yemen	Ban on the manufacture and use of non-biodegradable plastic bags

Production Volume or Number Restrictions

Only one (1) country of those examined for this report has established production volume restrictions, Cape Verde, which it imposed on conventional plastic bags. It applied a percentage reduction from 60% in 2015 to 100% on July 1, 2016, the date the ban on all conventional plastic bags

came into force. Since then, only biodegradable and compostable plastic bags are allowed in the country.

Regionally, European Union Directive 94/62/EC stipulates that packaging must be manufactured in such a way as to limit the packaging volume and weight to the minimum necessary to maintain the required safety and hygiene of the packaged

product and its acceptance by the consumer.” Most EU Member States have transposed this provision into domestic law but generally have not created explicit and binding numerical targets.

Promotion of the use by consumer of Reusable Bags

Sixteen (16) countries have explicitly promoted reusable plastic

bags of some kind. Of these, six (6) countries have mandate that reusable bags be provided to consumers or end-users, either free of charge or for a fee: Andorra, Greece, Italy, Palau, Panama, and Portugal. Four (4) countries promote reusable bags by explicitly exempting them from the ban on plastic bags: the Marshall Islands, Paraguay, Turkey and Vanuatu, while two (2) countries exempt

reusable bags from the plastic bag tax: Colombia and the United Kingdom. Four (4) countries require retailers and/or consumers to opt for reusable bags: Cambodia, Cyprus, Kyrgyzstan and Nepal. Table 5 disaggregates types of reusable bag regulations and the countries that have enacted them. Figure 4 shows the regional disaggregation of reusable bag regulations.

Exemptions from Plastic Bag Ban

Twenty-five (25) countries expressly provide for exemptions to their ban on plastic bags. The exemptions relate to certain activities and certain products. Most countries have multiple exemptions, the most common of which include handling and transport of perishable and fresh food items, carrying of small retail items, use for scientific or medical research, and garbage or waste storage and disposal. Four (4) countries exempt from the plastic bag ban manufacturing for purposes of export. Cambodia exempts from the ban the importation of plastic bags for non-commercial purposes in small volumes of 100 kg. - or less. In terms of regional distribution, Africa has the most number countries that have explicit exemptions from the ban, with 14 out of the 25 countries. The other regions split the remaining 11 countries with explicit exemption, with four in Europe, four in Asia and the Pacific, two in Latin America and the Caribbean, and one in West Asia. Table 6 lists the countries and types of exemptions from the plastic bag ban disaggregated by region.

Table 5: Countries with Mandates for Reusable Bags

Country	Type of Reusable Bag Regulation
Andorra Greece Italy Palau Panama Portugal	Provide to consumers or end-users free of charge for a fee
Cambodia Nepal Kyrgyzstan Cyprus	Obligation on retailers and/or consumers to opt for reusable bags
Colombia United Kingdom	Exemption from tax
Marshall Islands Paraguay Turkey Vanuatu	Exemption from the plastic bag ban

Figure 4 | Regional Disaggregation of Reusable Bag Regulations

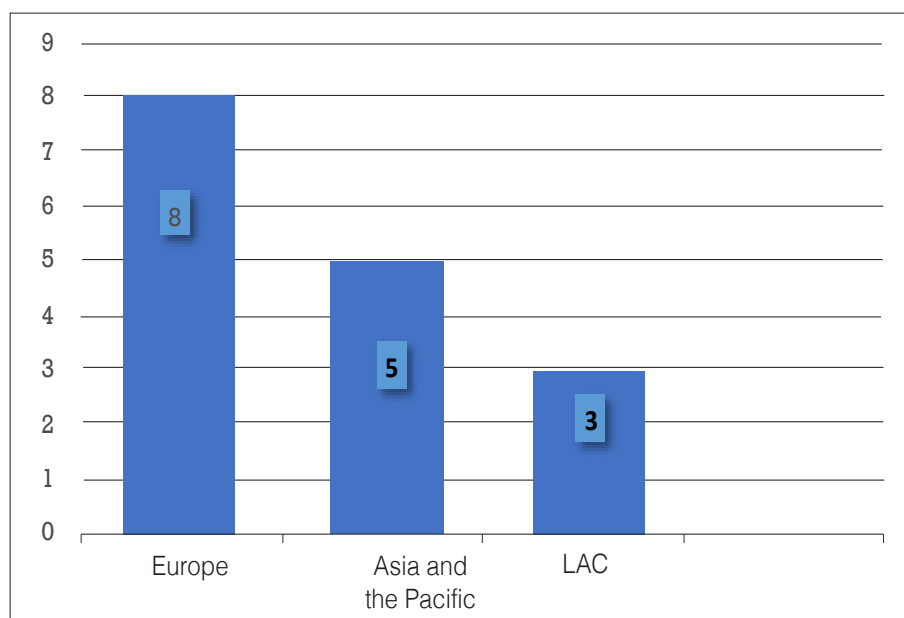


Table 6: Types of Exemptions from Plastic Bag Bans

Region/ Country	Types of Exemptions from Plastic Bag Ban									
	Primary packaging - for fresh, perishable or other loose food; pharmaceutical products	Transport of small retail goods, e.g. hardware items	Use for scientific or clinical research or other medical uses	Use for sanitation or waste storage and disposal	Commercial uses e.g. protection of bank notes; laundry & dry-clean bags	Plastic bags for export	Agricultural uses	National security uses / airport and duty-free bags	Alternative bags (woven bags)	Small volume use for non-commercial purposes
Africa										
Benin	✓									
Burkina Faso			✓	✓				✓		
Côte d'Ivoire	✓		✓	✓			✓	✓		
Gambia	✓	✓	✓	✓	✓		✓			
Kenya	✓			✓				✓		
Madagascar	✓	✓	✓							
Malawi	✓			✓						
Mauritius	✓			✓		✓		✓		
Niger			✓							
Seychelles	✓			✓		✓	✓	✓		
South Africa	✓			✓		✓	✓			
Togo	✓						✓			
Tunisia	✓									
Uganda									✓	
Asia & the Pacific										
Bangladesh						✓				
Cambodia										✓
Pakistan				✓						
Republic of Korea	✓									
Europe										
Andorra	✓									
Cyprus	✓									
The former Yugoslav Republic of Macedonia	✓	✓								
UK									✓	
Latin America & the Caribbean										
Antigua & Barbuda	✓	✓		✓	✓		✓			✓ (water storage)
Panama	✓									
West Asia										
Saudi Arabia	✓									

Tables 7 – 12 below include short summaries of the major features or approaches found in country-specific legislation divided by region. Table 13 provides a list of countries that have proposed new legislation on plastic bags.

Table 7: Country Specific Narratives on plastic bags: Latin American and the Caribbean

Country Specific narratives: Latin America and the Caribbean	
Country	Features of Plastic bag regulations
Antigua and Barbuda	<ul style="list-style-type: none"> Prohibits the importation, distribution, sale and use of shopping plastic bags Fines provided for breach of rules e.g. \$10,000 and imprisonment for 1 year for a first offence. Exceptions provided of specific types of plastic bags
Argentina	<ul style="list-style-type: none"> Plastic bags regulated at subnational/city level Only regulates disposal at national level (solid waste/ litter regulation)
Bahamas	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Barbados	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Belize	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Bolivia (Plurinational State of)	<ul style="list-style-type: none"> Extended Producer Responsibility recognized in law including plastic bags
Brazil	<ul style="list-style-type: none"> Plastic Bags regulated primarily at subnational /city level Extended Producer Responsibility over specific types of packaging for listed products
Chile	<ul style="list-style-type: none"> New Law on Plastic bags establishing a partial ban Applies only to large retail business. Small and medium-size businesses, including neighborhood shops, will have two years to abide by the new rules. Primary packaging or factory packaged products are excluded from the bill prohibition
Colombia	<ul style="list-style-type: none"> Rationale use of plastic bag program introduced for distributors. Specifications included on recycled content, reuse, thickness and biodegradability Requirements for charging for plastic bags included
Costa Rica	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation) New legislation proposed to regulate non-biodegradable plastic bags
Cuba	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Dominica	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation) New proposed regulation announced
Dominican Republic	<ul style="list-style-type: none"> Reuse and Recycling to be regulated by municipalities in consultation with national government
Ecuador	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
El Salvador	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Grenada	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Guatemala	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation) Plastic bag regulated at subnational /city level
Guyana	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Haiti	<ul style="list-style-type: none"> Ban on importing, manufacturing of black plastic polyethylene bags and polystyrene foam containers
Honduras	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Jamaica	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation) Environmental Levy administered on imported and locally manufactured goods
Mexico	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Nicaragua	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)

Country Specific narratives: Latin America and the Caribbean	
Panama	<ul style="list-style-type: none"> The use of polyethylene bags to transport goods and products is prohibited in supermarkets, self-service shops, retail and commercial establishments. Law focuses on the promotion of reusable bags
Paraguay	<ul style="list-style-type: none"> New requirements that polyethylene plastics bags must be replaced with biodegradable and reusable bags. Law governs Extended Producer Responsibility Time periods given for implementation of the law and provision of manufacture of replacement products.
Peru	<ul style="list-style-type: none"> Legal rules requiring Public Sector Entities, to buy and use biodegradable plastic bags Only regulates disposal at national level (solid waste/litter regulation)
Saint Kitts and Nevis	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Saint Lucia	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation) Environmental Levy administered on imported and locally manufactured goods
Saint Vincent and the Grenadines	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Suriname	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Trinidad and Tobago	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Uruguay	<ul style="list-style-type: none"> Law governs Extended Producer Responsibility
Venezuela, Bolivarian Republic of	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)

Table 8: Country Specific Narratives Plastic Bags: Africa

Country specific narratives: Africa	
Country	<ul style="list-style-type: none"> Features of Plastic bag regulation
Algeria	<ul style="list-style-type: none"> Import restrictions on plastic bags
Angola	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Benin	<ul style="list-style-type: none"> Prohibition of the production, importation, exploitation, marketing, possession, distribution and use of non-biodegradable plastic bags
Botswana	<ul style="list-style-type: none"> The Manufacture and import of plastic bags thinner than 24 microns for use in Botswana is prohibited. Exceptions are included An Environmental levy is provided related to plastic bags
Burkina Faso	<ul style="list-style-type: none"> Broad prohibition of the production, import, marketing and distribution of non-biodegradable plastic packaging and plastic bags. The production, importation, marketing or distribution of packaging and non-biodegradable plastic bags intended directly for sanitary activities, scientific and experimental research or for the purpose of security and national security, are subject to a special authorization
Burundi	<ul style="list-style-type: none"> Anti-pollution tax on plastic bags exists
Cape Verde	<ul style="list-style-type: none"> Prohibition of production, importation, distribution into the market and use of conventional plastic bags for packaging.
Cameroon	<ul style="list-style-type: none"> Prohibits the manufacture, importation and commercialization of non-biodegradable plastic packages less than or equal to 60microns.
Central African Republic	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Chad	<ul style="list-style-type: none"> Prohibiting the import of non-biodegradable plastic packaging throughout the national territory
Comoros	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Democratic Republic of the Congo	<ul style="list-style-type: none"> Prohibition of the production, import, marketing and use of plastic bags and bags for the sale of food, water and other beverages and as well as oxo-biodegradable bags, bags and plastic films. Exceptions are provided

Country specific narratives: Africa	
Côte D'Ivoire	<ul style="list-style-type: none"> Prohibits the production, import, marketing, possession and use of plastic bags. Exceptions are provided
Democratic Republic of the Congo	<ul style="list-style-type: none"> The manufacture import and marketing of non-biodegradable packaging is prohibited.
Djibouti	<ul style="list-style-type: none"> Importation and marketing of non-biodegradable and non-biodegradable plastic bags and packaging products are strictly prohibited
Egypt	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Equatorial Guinea	<ul style="list-style-type: none"> No national solid waste management law found
Eretria	<ul style="list-style-type: none"> Prohibition of producing, importing, sale or distribution of thin plastic bags. of high density or low-density polyethylene products not exceeding 0.1 millimeter in thickness. Fines for selling, manufacturing or carrying plastic bags up to \$40,000 dollars
Ethiopia	<ul style="list-style-type: none"> Prohibited to grant permit for the manufacture or importation of any nonbiodegradable plastic bags with a wall thickness of 0.03 millimeters and less than 0.03 millimeters. Fines range from \$5000-\$20000Birr
Gabon	<ul style="list-style-type: none"> Prohibition of the import and marketing of non-recyclable plastic bags Requirements for collection, sorting, storage, transport, recovery, reuse, recycling and disposal of all types of waste
Gambia	<ul style="list-style-type: none"> Prohibits the manufacture or import and sale of plastic bags Exceptions are provided
Ghana	<ul style="list-style-type: none"> No national solid waste management law found Law on Hazardous and Electronic waste covers recycling of wastes that are hazardous to the environment
Guinea	<ul style="list-style-type: none"> No national solid waste management law found
Guinea- Bissau	<ul style="list-style-type: none"> Prohibits the use, manufacture, import, marketing and distribution of plastic bags
Kenya	<ul style="list-style-type: none"> Prohibits the use, manufacture and importation of all plastic bags used for commercial and household packaging Exceptions are provided
Lesotho	<ul style="list-style-type: none"> Environmental levy includes taxes on packaging and plastics
Liberia	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Libya	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Madagascar	<ul style="list-style-type: none"> Prohibiting the production, importation, marketing, stock-building and use of plastic bags
Malawi	<ul style="list-style-type: none"> Prohibits the importation, manufacture, trade and commercial distribution of plastics, plastic bags and plastic sheets made of plastic film with a wall thickness of less than sixty micrometres Exemptions provided
Mali	<ul style="list-style-type: none"> Prohibiting the production, import, and sale of non-biodegradable plastic bags Packaging and recycling provisions are included
Mauritania	<ul style="list-style-type: none"> Prohibiting the production, import, and sale of plastic bags of specific densities
Mauritius	<ul style="list-style-type: none"> Regulates the manufacture of biodegradable plastic bag or a compostable plastic bag Provides for an exemption for use of specific types of plastic bags in special circumstances only.
Morocco	<ul style="list-style-type: none"> Prohibition of the manufacture, import, export, marketing and use of plastic bags Exemptions provided
Mozambique	<ul style="list-style-type: none"> Prohibition of the following, production, importation, retail sale of a plastic bag whose thickness is less than at 30 microns, the free sale of plastic bags for commercial activities and the marketing and distribution of plastic bag containing more than 40% recycled material in establishments marketing products food.

Country specific narratives: Africa	
Namibia	<ul style="list-style-type: none"> • Only regulates disposal at national level (solid waste/ litter regulation) • Drafting of regulations to create a levy on plastic bags has been announced to be issued this year
Niger	<ul style="list-style-type: none"> • Prohibiting the importation, production, marketing and storage of low-density plastic bags and flexible packaging. • Exemptions provided
Nigeria	<ul style="list-style-type: none"> • Only regulates disposal at national level (solid waste/ litter regulation)
Rwanda	<ul style="list-style-type: none"> • Prohibition of Manufacturing, Importation, Use and Sale of Polythene Bags
Sao Tome and Principe	<ul style="list-style-type: none"> • Only regulates disposal at national level (solid waste/ litter regulation)
Senegal	<ul style="list-style-type: none"> • Prohibition of the production, importation, use, possession for the sale and free sale or distribution of plastic bags with a thickness of less than 30 microns
Seychelles	<ul style="list-style-type: none"> • Prohibition of the manufacturing, importation, distribution of plastic bags • Exemptions provided
Sierra Leone	<ul style="list-style-type: none"> • No national solid waste management law found
Somalia	<ul style="list-style-type: none"> • No national solid waste management law found
South Africa	<ul style="list-style-type: none"> • Prohibition of the manufacture, trade and commercial distribution of domestically produced and imported plastic carrier bags and plastic flat bags • Fines are provided for breach of requirements and up to 10 years imprisonment • Charges to retailers for plastic bags
South Sudan	<ul style="list-style-type: none"> • No national solid waste management law found
Sudan	<ul style="list-style-type: none"> • No national solid waste management law found
Swaziland	<ul style="list-style-type: none"> • Only regulates disposal at national level (solid waste/ litter regulation)
Togo	<ul style="list-style-type: none"> • Prohibition of the production, import, distribution and marketing of non-biodegradable plastic bags and packaging
Tunisia	<ul style="list-style-type: none"> • Draft law covering the prohibition of the production, importation, marketing, holding, for sale or distribution, and distribution free of charge of specific types of plastic bags
Uganda	<ul style="list-style-type: none"> • Prohibition of the manufacture, import, sale, use, distribution or of plastic bags • Exemptions are included
United Republic of Tanzania	<ul style="list-style-type: none"> • Prohibition of the manufacture, import, sale, use, distribution or of plastic bags • Exemptions are included
Zambia	<ul style="list-style-type: none"> • Plastic Carrier Bag and Flat Bag Standard Regulations being proposed • Prohibition of the production and distribution of plastic bags of thickness less than 30 microns
Zimbabwe	<ul style="list-style-type: none"> • Prohibition of the manufacture for use, commercial distribution or importation of plastic packaging whether biodegradable or not, with a wall thickness of not less than 30 micrometers • Duties of requirements for recycling polystyrene packaging material manufactured and sold.

Table 9: Country Specific Narratives for Plastic bags: Europe

Country specific narratives: Europe	
Country	Features of Plastic bag regulation
Albania	<ul style="list-style-type: none"> The production import and placing on the market of plastic bags below 30µ (micro) (15 for each side) is prohibited. Prohibited to use and sell non-biodegradable plastic bags by all commercial units
Andorra	<ul style="list-style-type: none"> Prohibition of any commercial activity to distribute very light plastic bags with handles, light plastic bags and oxo biodegradable or oxo degradable plastic bags or distribute biodegradable or compostable bags." Prohibition of import of specified plastic bags
Armenia	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Austria	<ul style="list-style-type: none"> Packaging legislation regulating content and types of use of plastic
Azerbaijan	<ul style="list-style-type: none"> National legislation on domestic and household waste
Belarus	<ul style="list-style-type: none"> No solid waste management legislation found
Belgium	<ul style="list-style-type: none"> Regional rather than national legislation exists on plastic bags
Bosnia and Herzegovina	<ul style="list-style-type: none"> Levy charged on plastic bags
Bulgaria	<ul style="list-style-type: none"> Levy charged on plastic bags
Croatia	<ul style="list-style-type: none"> Regulation on packaging waste Fee on distributor of plastic bags and charges on plastic bags
Cyprus	<ul style="list-style-type: none"> Ban on the free distribution of plastic carrier bags applicable to lightweight plastic carrier bags with a wall thickness of less than 50 µm Levy on the sale of plastic bags
Czech Republic	<ul style="list-style-type: none"> Charge on for the sale of plastic bags Packaging legislation requiring recycling
Denmark	<ul style="list-style-type: none"> Levy on the sale of plastic bags instituted Packaging legislation requiring recycling
Estonia	<ul style="list-style-type: none"> Lightweight and very lightweight plastic carrier bags shall not be supplied to consumers free of charge. Packaging legislation requiring recycling Excise duties on packaging Fines for failure to prevent the generation of waste
Finland	<ul style="list-style-type: none"> Price for lightweight plastic carrier bags instituted Extended producer responsibility legislation
France	<ul style="list-style-type: none"> The production, distribution, and sale and the use of packaging's or bags made, in whole or in part, from oxo-fragmentable plastic are forbidden Single-use compostable plastic bags are still allowed for free, but not at the checkout of a store
Georgia	<ul style="list-style-type: none"> Extended producer responsibility legislation
Germany	<ul style="list-style-type: none"> New Packaging law passed which comes into effect in 2019
Greece	<ul style="list-style-type: none"> Packaging law and requirements for recycling outlined in law Lightweight plastic bags are subject to an environmental fee
Hungary	<ul style="list-style-type: none"> Packaging law and recycling quota. Extended producer responsibility legislation
Iceland	<ul style="list-style-type: none"> Recycling fee for plastic bags importers and manufacturers
Ireland	<ul style="list-style-type: none"> Environmental levy provided on plastic bags

Country specific narratives: Europe	
Israel	<ul style="list-style-type: none"> Banned plastic bags under 20 µm thick; plastic bags between 20-50 µm will be available for purchase Tax on retailers Regulation of packaging law including recycling targets
Italy	<ul style="list-style-type: none"> Ban on placing on the market of a) non-biodegradable and non-compostable lightweight plastic carrier bags; b) non-reusable plastic carrier bags with handle; c) very lightweight plastic bags Certified biodegradable and compostable plastic carrier plastic bags are not banned. Extended Producer Responsibility and obligation of collection and return of plastic packaging and packaging waste- that includes plastic bags - on manufacturers and retailers
Kazakhstan	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Kyrgyzstan	<ul style="list-style-type: none"> Requirement for the gradual replacement of plastic bags with reusable bags
Latvia	<ul style="list-style-type: none"> Tax on packaging based on thickness and weight
Liechtenstein	<ul style="list-style-type: none"> Regulation on packaging and requirements for recycling
Lithuania	<ul style="list-style-type: none"> Prohibition of the distribution of light plastic shopping bags at places of sale of goods or products Extended Producer Responsibility requirements duties on manufacturer, consumer and retailer
Luxembourg	<ul style="list-style-type: none"> Annual consumption rate set for consumer should not exceed 90 light plastic bags per person Regulation of distribution of plastic bags of specific thickness
Malta	<ul style="list-style-type: none"> Regulation on packaging and requirements for recycling Excise Duty on plastic bags
Monaco	<ul style="list-style-type: none"> Prohibited to make available, free or for a charge - checkout single-use plastic bags, except for the compostable bags and those made of, wholly or partly, of bio-based materials The Production, distribution, selling, provision and use of bags made from oxo-fragmentable plastics are forbidden.
Montenegro	<ul style="list-style-type: none"> Fees on the manufacture or import of specific types of packaging including plastics. Extended liability of the manufacturer
Netherlands	<ul style="list-style-type: none"> Ban prohibits the free provision of plastic bags in places where goods and products are offered for sale. Recycling targets included in legislation for producer or importer
Norway	<ul style="list-style-type: none"> Tax on manufacture of Carrier bags Producers that place on the market packaging shall fund the collection, sorting, recycling and other treatment of used packaging and packaging waste through membership of a producer responsibility organisation.
Poland	<ul style="list-style-type: none"> Tax based on weight of plastic bags Prohibited free distribution of plastic bags thick less than 50 mkm (to 15 mkm) Distributor obliged to charge a recycling fee from a lightweight plastic shopping bag
Portugal	<ul style="list-style-type: none"> Charge per plastic bag, contribution is charged on plastic bags made completely or partially from plastic material with handles, and with a thickness of equal or less than 50 microns
Republic of Moldova	<ul style="list-style-type: none"> Levy on plastic bags Prohibition to distribute plastic bags free of charge, except for very thin plastic bags. Requirements for recycling and reuse of waste
Romania	<ul style="list-style-type: none"> The placing on the national market of thin and very thin plastic bags with a handle is prohibited Eco-tax issued Extended Producer responsibility Annual targets for recycled packaging
Russian Federation	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)

Country specific narratives: Europe	
San Marino	<ul style="list-style-type: none"> Adopted Progressive reduction of the marketing and distribution of non-biodegradable carrier bags High administrative sanction for breach of requirements.
Serbia	<ul style="list-style-type: none"> Manufacturers or importers of plastic bags, except for biodegradable bags required to pay fees Extended Producer responsibility
Slovakia	<ul style="list-style-type: none"> All bags except light weight plastic bags can be provided free of charge Extended Producer responsibility
Slovenia	<ul style="list-style-type: none"> Plastic bags should not be available free of charge to the consumers. The annual level of use of plastic bags is limited to maximum 40 plastic bags per person. Very light plastic bags (bags with the thickness of the wall less than 15 microns that are intended primarily for packaging of food, which is not prepackaged) are not included in this limit. Fines on distributors who offer plastic bags free of charge Environmental tax on generation of packaging waste
Spain	<ul style="list-style-type: none"> Measures to reduce the consumption of plastic bags Delivery of light and very light plastic bags to the consumer at the points of sale of goods or products is prohibited, except if they are made of compostable plastic Reduction, recycling and recovery targets
Sweden	<ul style="list-style-type: none"> Mandatory for suppliers of plastic carrier bags to inform customers about the negative environmental effects of plastic bags and the benefits of reduced consumption of plastic bags, No national laws that explicitly mandate or promote the use of re-usable bags
Switzerland	<ul style="list-style-type: none"> Only voluntary private agreements exist
Tajikistan	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
The former Yugoslav Republic of Macedonia	<ul style="list-style-type: none"> Prohibitions on use of plastics as packaging. Exemptions included Extended Producer responsibility Fines for failure to comply with requirements
Turkey	<ul style="list-style-type: none"> Forbidden to produce, put in the market and import packaging products that cannot be recycled or recovered. Plastic bags - thicker than 15 microns - will be distributed only with fee starting 2019
Turkmenistan	<ul style="list-style-type: none"> No law found
Ukraine	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
United Kingdom of Great Britain and Northern Ireland	<ul style="list-style-type: none"> Charge for all single use plastic carrier bags, some excluded bags indicated.
Uzbekistan	<ul style="list-style-type: none"> Prohibition of manufacture of plastic bags less than 15 microns thick and less than 5 liters capacity in 2019 and less than 50 microns in thickness and less than 10 liters in capacity Levy to be provided by retailer of amount per plastic bag

Table 10: Country Specific Narratives for plastic bags: Asia and Pacific

Country specific narratives: Asia and Pacific	
Afghanistan	<ul style="list-style-type: none"> Ban the import and usage of plastic bags in all shops in the cities and provinces across the country
Australia	<ul style="list-style-type: none"> Extended producer's responsibility at national level and used packaging regulations Regulation of plastic bags by States
Bangladesh	<ul style="list-style-type: none"> Restrictions on manufacture, sale of all kinds or any kind of polythene shopping bag, or any other article made of polyethylene or polypropylene, imposing absolute ban on the manufacture, and sale
Bhutan	<ul style="list-style-type: none"> Restrictions on the import of plastic bags Extended producer responsibility for wastes

Country specific narratives: Asia and Pacific	
Brunei Darussalam	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/litter regulation)
Cambodia	<ul style="list-style-type: none"> Handle plastic bags are prohibited from importation, production, distribution and use, except for: A- the plastic bags are 0.03 mm or thicker; and B- the plastic bags have a bottom width of at least 25 cm or 10 inches. All importation and local production of plastic bags in A and B above shall have permit from the ministry of environment except for non-commercial importation of less than 100 kg Customers will pay for plastic bags from supermarkets, commercial centers, and all business and service locations Legislation requires encouragement of use of renewable materials and minimization of waste generation
China	<ul style="list-style-type: none"> Ban on the import of used plastic bags and single use plastic products No free plastic shopping bags shall be provided at any commodities retail places, and the price of plastic shopping bags shall be clearly marked and charged separately from the commodity price.
Democratic People's Republic of Korea	<ul style="list-style-type: none"> No Law found
Fiji	<ul style="list-style-type: none"> Environment and Climate Adaptation Levy shall be charged on plastic bags distributed by businesses. Levy charged on plastic bags is \$0.10c per plastic bag and payable by the person to whom a plastic bag is provided.
India	<ul style="list-style-type: none"> Plastic waste management jurisdiction given to urban local bodies in their respective jurisdiction for recycling Requirements to conform to standards for plastic waste recycler and recycling of plastic IS 14534: Registration of producer, recyclers and manufacturer, -from the State Pollution Control Board Responsibility of waste generator to take steps to minimize generation of plastic waste and segregate plastic waste at source in accordance with the Solid Waste Management Rules, 2000 or as amended from time to time.
Indonesia	<ul style="list-style-type: none"> Law speaks to creation of policy directives on waste reduction, handling and minimization including the development of a road map on extended producer responsibility Manufacturers are obliged to recycle waste by <ul style="list-style-type: none"> a. preparing a waste recycling program as part of its business and / or activity; b. using recyclable production raw materials; and / or c. reclaiming garbage from product and product packaging for recycling.
Iran (Islamic Republic of)	<ul style="list-style-type: none"> No data
Japan	<ul style="list-style-type: none"> Recycling plan instituted by law Extended producer responsibility for designated businesses who are required to reduce waste containers and packaging discharged through rationalization of use of containers and packaging by using recyclable containers and packaging and reducing the excess use of containers
Kiribati	<ul style="list-style-type: none"> Issuance of a levy and fund on waste
Lao People's Democratic Republic	<ul style="list-style-type: none"> General requirements to separate waste for different purposes such as recycle, reuse, reprocess as new products and elimination with methods and techniques within identified areas base
Malaysia	<ul style="list-style-type: none"> Investment tax allowance for use of biodegradable materials
Maldives	<ul style="list-style-type: none"> Standards set for importers and local producers of biodegradable bags.
Marshall Islands	<ul style="list-style-type: none"> Unlawful for a person to import, manufacture, sell or distribute plastic shopping bags.
Micronesia (Federated States of)	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/litter regulation)
Mongolia	<ul style="list-style-type: none"> Use of all types of plastic bags which are less than 0.025 mm thick or lesser for package use shall be prohibited in any trade and services
Myanmar	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/litter regulation)

Country specific narratives: Asia and Pacific	
Nauru	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/litter regulation)
Nepal	<ul style="list-style-type: none"> No persons can import, produce, store, sale and distribute plastic bags of thickness less than 30 Micron Retailers and Individual users to reduce the unnecessary uses and reuse the plastic bag to the extent possible. Retailers need to collect and return all plastic bag to importers Fines for breach of rules
New Zealand	<ul style="list-style-type: none"> Waste Minimization Fund (WMF) provides funding for projects that improve waste management and minimization Extended Producer Responsibility.
Pakistan	<ul style="list-style-type: none"> Prohibits not only the manufacture of conventional disposable plastic products in Pakistan, but also prevents them being imported into Pakistan. This means that all companies anywhere in the world exporting disposable plastic products to Pakistan made from or packaged in conventional or bio-based PE, or PP, or in PS must make and/or package them in future with oxo-biodegradable plastic technology from a supplier registered with the Pakistan Government.
Palau	<ul style="list-style-type: none"> Retail establishments shall not provide plastic bags except those that are bio-degradable or compostable to their customers at point of sale or prior to their exit for the purpose of transporting good. Comes into operation 2019 Retail establishments that sell reusable bags to customers shall price re-useable bags at no greater than 25% above the at cost value By 2018 no individual or business may import plastic product prohibited for distribution.
Papua New Guinea	<ul style="list-style-type: none"> Ban on non-biodegradable plastic bags. Biodegradable bags are allowed, and the use of bilum bags, made of organic woven material, is encouraged
Philippines	<ul style="list-style-type: none"> Rules on waste minimization at source and separation No specific rules on plastic bags
Republic of Korea	<ul style="list-style-type: none"> Prohibition of distribution of packaging for free Requirements to put in place a recycling plan for specified products
Samoa	<ul style="list-style-type: none"> General obligations to regulate wastes. No specific bans
Singapore	<ul style="list-style-type: none"> Mandatory requirement to submit waste report and waste reduction plan
Solomon Islands	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/litter regulation)
Sri Lanka	<ul style="list-style-type: none"> Prohibit the manufacture of polythene or any polythene product of 20 microns or below in thickness for in country use . Polythene or any polythene product of 20 microns or below in thickness can be permitted to be used with the prior written approval of the Central Environmental Authority for (a) the use of specified material for laminating and (b) the use for medical and pharmaceutical purposes in the absence of other suitable alternatives.
Thailand	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/ litter regulation)
Timor-Leste	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/litter regulation)
Tonga	<ul style="list-style-type: none"> Levy on plastic bags on importation. Exemptions provided
	<ul style="list-style-type: none"> Waste Management requirements
Tuvalu	<ul style="list-style-type: none"> Only regulates disposal at national level (solid waste/litter regulation)
Vanuatu	<ul style="list-style-type: none"> Prohibit the import of non-biodegradable plastic single-use bags Obligation for local manufacturers of plastic bags to use only biodegradable plastics as of January 31, 2018. Prohibition of the Manufacture, sell, give or otherwise provide single use bags other than to contain, wrap or carry meat or fish, single use of plastic bags are shopping bags that are made out of polyethylene less than 35 microns thick,
Viet Nam	<ul style="list-style-type: none"> Environmental protection tax issues against use of plastic bags Requirements for reduction and waste minimization

Table 11: Country specific narratives Plastic Bags: Western Asia

Country specific narratives – Western Asia	
Bahrain	• Only regulates disposal at national level (solid waste/litter regulation)
Iraq	• No law found
Jordan	• Prohibition of the importation, export and commercialization of non-biodegradable plastic bags
Kuwait	• No law found
Lebanon	• Prohibition, Local Production, Importation, Marketing and Use of Plastic Packaging Bags
Oman	• Only regulates disposal at national level (solid waste/litter regulation)
Qatar	• Only regulates disposal at national level (solid waste/litter regulation)
Saudi Arabia	• Technical Regulation for the Biodegradable Plastic Products issued on import of products
Syrian Arab Republic	• No law found
United Arab Emirates	• Standard & Specification for Oxo-biodegradation of Plastic bags and other disposable Plastic
Yemen	• Prohibits the manufacture, import and use of non-biodegradable plastic bags

Table 12: Country specific narratives plastic bags: Canada and USA

Country specific narrative Canada and USA	
Canada	• Plastics not regulated at federal level – only implicit authority to regulate use, manufacture, and importation of plastic bags
USA	• Plastics not regulated at federal level except in relation to reduction of solid waste generation. • Regulation at State level including some states that have prohibitions against plastic bag bans

Table 13: Countries which have proposed new legislation on plastic bags as of July 2018

Countries which have proposed new legislation on plastic bags
<p>Several countries have proposed new specific legislation, this year to begin to control plastic bags. Some important country examples come from the Pacific, Latin American and the Caribbean, Asia and Africa.</p> <p>Caribbean</p> <ul style="list-style-type: none"> • The Government of Jamaica (proposed for January 2019), St. Vincent and the Grenadines, St. Kitts and Nevis, Bahamas (proposed 2020) and Belize (Proposed April 2019) have indicated their intention to take steps in the banning of single use plastic bag in the retail trade. No announcements on exemptions have yet to be released. <p>Pacific</p> <ul style="list-style-type: none"> • The Governments of the Solomon Islands, Papua New Guinea (proposed before end of 2018) , Samoa(Proposed January 2019) have all announced plans to ban single use plastics in their territories. <p>Latin America</p> <ul style="list-style-type: none"> • The Government of Costa Rica has announced a plastic bag ban by 2021 to eliminate single use plastic and plastic bags. • The Government of Argentina has announced two bills (2018) which would promote reuse, recycling, and recovery, consumer awareness on associated environmental risks, and the use of environmentally sensitive materials techniques, and technologies in relation to all plastic bags used to hold or transport products supplied at any point of Sale or delivery. The Second would prohibit the use of bags made from polyethylene and other conventional plastic materials in supermarkets, and retail shops. The plastic bag ban would be implemented gradually and progressively over time through the replacement of plastic bags with biodegradable equivalents. <p>Africa</p> <ul style="list-style-type: none"> • The Government of Zambia has developed draft regulations regulating the manufacture, import, trade or commercially distribution of packaging materials in Zambia including requirements for provision of alternative shopping bags to customers. <p>Asia</p> <ul style="list-style-type: none"> • The Thailand Government has announced a plan to study the creation of a plastic bag levy. • On 5 June 2018 the Government of India used World Environment Day to announce that India will, by 2022, “eliminate all single use plastics from our beautiful country.” The announcement builds on state-specific bans on the manufacture, supply, storage and use of plastics that are already in place in at least 25 of the country’s 29 states. Most recently, on June 23, Mumbai became the country’s largest city to implement a complete ban on single-use plastics, from plastic bags to bottles and cutlery, as part of a statewide ban in Maharashtra. The ban allows exemptions for retail packaging, trash can liners and takeaway packaging.

Market-based Instruments

Key Plastic Bag Finding # 4: To date only twenty- seven (27) countries have instituted taxes on the manufacture and production of plastic bags while thirty (30) charge consumers fees for plastic bags at the national level.

Different regulatory approaches have been adopted by countries to regulate plastic bags using market-based instruments. Some countries have specific national legislation on plastic bags while others have packaging laws or regulations which govern plastic bags. The two predominant approaches are illustrated below:

- **Taxes on Manufacturers, Importers or Producers:** Twenty-seven (27) countries have instituted taxes on the manufacture, import or production of plastic bags. Countries have adopted taxes on locally and foreign made plastic bags as manufactured goods. Lesotho for instance charges a specific levy on carrier bags and flat bags, while Jamaica charges an environmental levy on the sale of all locally manufactured goods including plastic bags of 0.5%.
- **Levy or fee charged to consumers:** Thirty (30) countries have a levy or fee charged to consumers. Countries have adopted general or specific legislation which set a defined fee per plastic bag type as well as more discretionary approaches which allow the retailer to determine the fee to be charged for each type of plastic bag. The amount of the fees prescribed ranges significantly between

countries, often based on the thickness and material content of plastic bags regulated. Different approaches on the base fee were found including countries which charged fees for plastic bags based on content, e.g. fees for plastic bags were charged at a lower cost that have a specific amount of recycled content in Andorra²³, adoption of limits on consumption rates per customer e.g. Luxemburg²⁴, or requirements that plastic bags cannot be sold at a value less than their actual cost as in China and Estonia²⁵. Figure 5 below outlines the number of countries that have adopted fees and levies on customer versus levies or taxes on manufacturers; and those that use both approaches. The Bar chart also highlights the proportion of countries which don't use market-based approaches.

Figure 5 | Countries with Levies and Fees according to Type

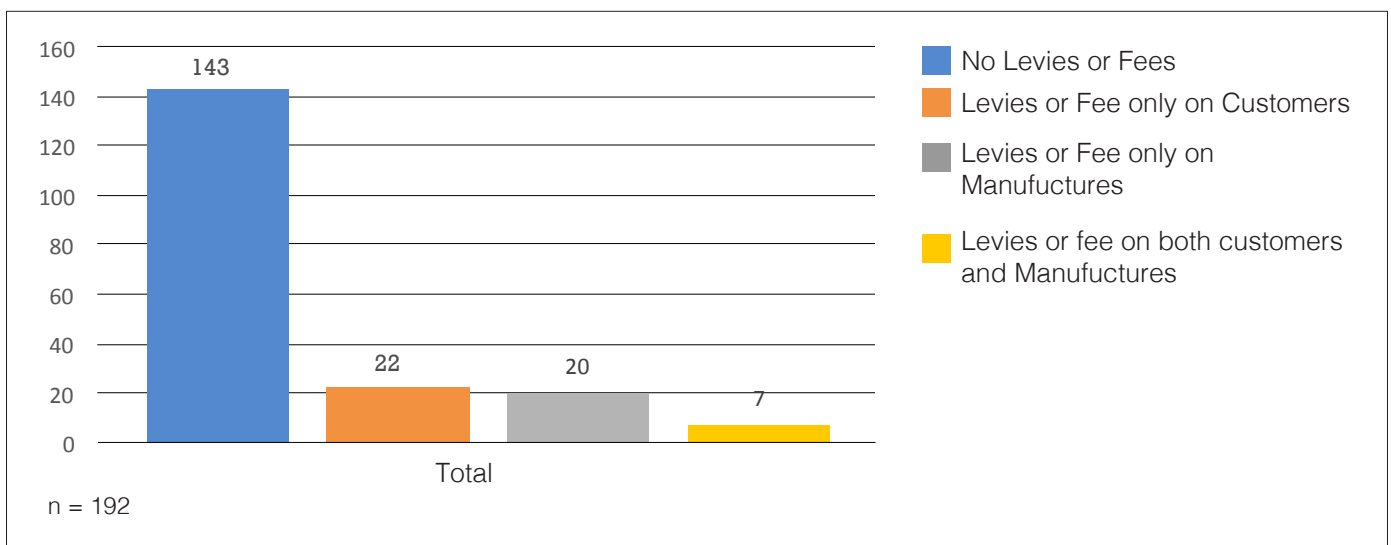


Table 14 presents data on all the countries disaggregated by region which charge a tax on manufacture of plastic bags

Table 14: Countries which have a tax on manufacture/ production/import of plastic bags

Countries which have a tax on manufacture/production/import of plastic bags					
Africa	Latin America and the Caribbean	Europe	Asia and Pacific	Western Asia	Canada and US
Côte d'Ivoire	Dominica	Albania	India	Jordan	N/A
Lesotho	Jamaica	Bulgaria		Tunisia	
South Africa		Denmark		Uzbekistan	
Uganda		Estonia		Viet Nam	
		Lithuania			
		Malta			
		Montenegro			
		Morocco			
		Norway			
		Poland			
		Portugal			
		Republic of Moldova			
		Romania			
		Serbia			
		Slovenia			
		The former Yugoslav Republic of			
		Macedonia			

Lesotho, Dominica, Jamaica, Bulgaria, Denmark, Malta, Montenegro and Serbia while having taxes instituted on plastic bags currently have no bans.

Map 3 also includes a visual representation of the 30 countries which charge the consumer for the use or sale of plastic bags.

Map 3 | Countries which use taxes, or fees to regulate the manufacture, distribution/use or trade in plastic bags

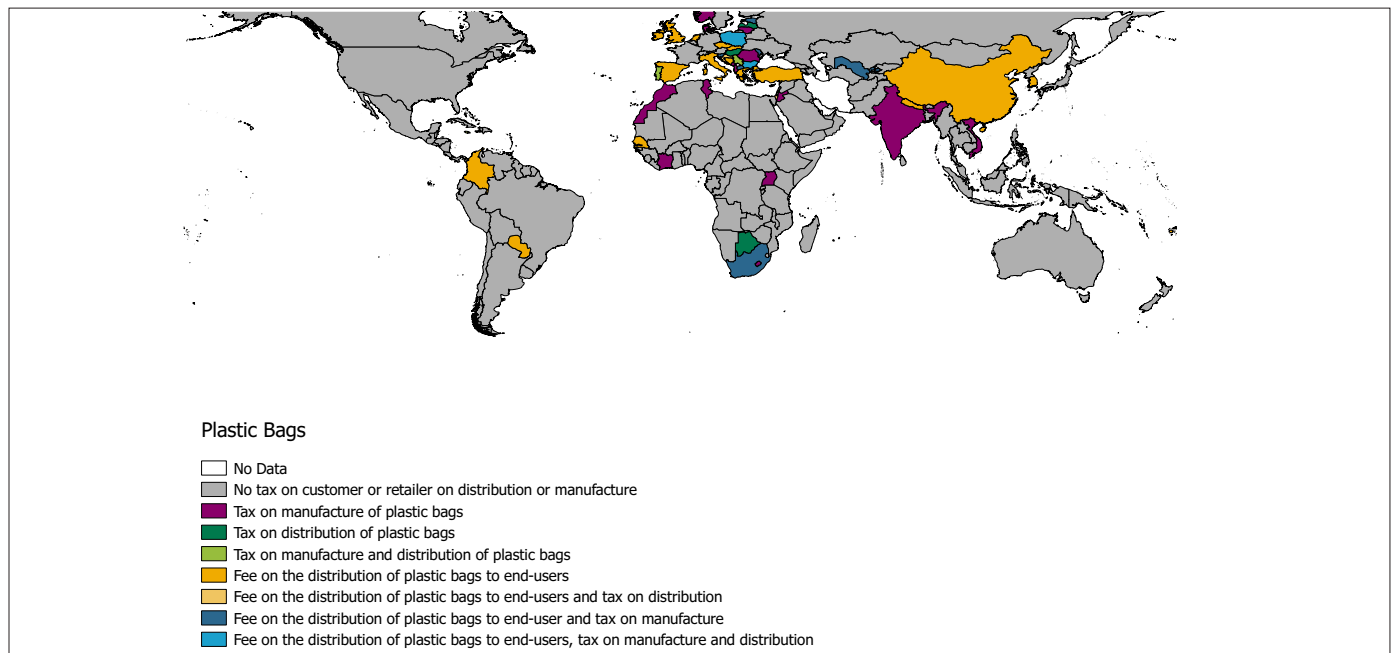


Table 15 presents data on all the countries disaggregated by region which charge a fee to the consumer for plastic bag sale or consumption. Countries that impose a legal mandate for reusable bags are indicated by an asterisk (*).

Table 15: Countries which charge a levy or fee for plastic bags at the national level on the consumer

Countries which charge a levy or fee for plastic bags (national level) on the consumer					
Africa	Latin America and the Caribbean	Europe	Asia and Pacific	Western Asia	Canada and US
Senegal	Colombia*	Andorra	China	N/A	N/A
South Africa	Paraguay*	Bosnia and Herzegovina	Fiji		
		Bulgaria	Nepal *		
		Croatia	Republic of Korea		
		Cyprus*			
		Czech Republic			
		Estonia			
		Greece*			
		Ireland			
		Israel			
		Italy*			
		Luxemburg			
		Netherlands			
		Poland			
		Republic of Moldova			
		Slovakia			
		Slovenia			
		Spain			
		The former Yugoslav Republic of Macedonia			
		Turkey			
		United Kingdom*			
		Uzbekistan			

* Countries with a legal mandate for re-usable bags.

In addition to the main approaches identified a few countries provide incentives for manufacturers or producers of re-usable bags. These countries have adopted incentives to promote the production and manufacture of re-usable bags as in the case provided in Vietnam and Romania where environmentally friendly bags made from renewable resources are exempt from an environmental protection tax. Nine (9) countries, Albania, Cambodia, Estonia, Greece, Malaysia, Montenegro, Norway, Romania and Vietnam provide fiscal incentives or tax breaks to manufactures to either recycle or produce reusable plastic bags.(Figure 6)

Ten (10) countries charge a tax or levy on the retailers or distributor of plastic bags- Botswana, Bulgaria, Croatia, Hungary, Israel, Jamaica, Latvia, Poland, Portugal and Serbia. The predominant approach therefore is the charge on the consumer for use of plastic bags. Table 16 provides some examples of taxes, levies and fees on plastic bags instituted.

Figure 6 | Countries with laws that provide tax breaks for manufacturers to recycle or produce reusable bags

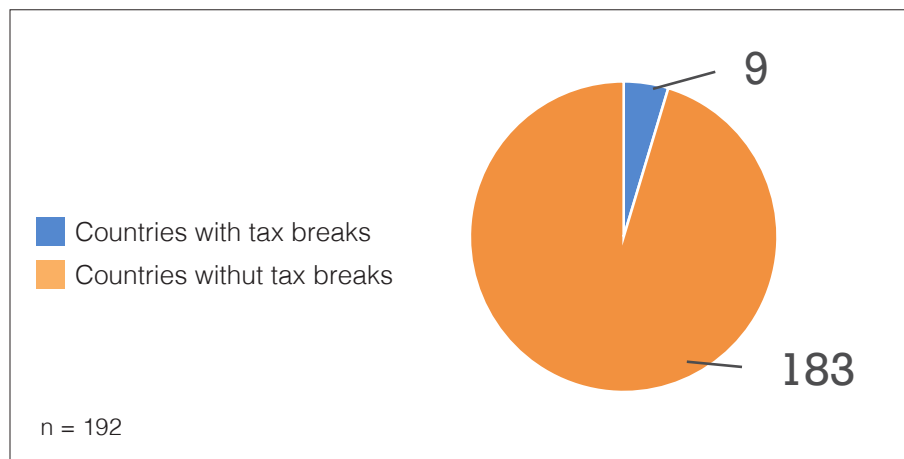


Table 16: Country examples of taxes on the manufacture or import of plastic bags

Country	Tax on manufacture of plastic bags or import
South Africa	· Levy on the manufacture of plastic bags: 12c per bag is payable to the South African Revenue Authority. An environmental levy is payable on certain locally manufactured plastic bags of which the manufacturing takes place in a licensed manufacturing warehouse. The environmental levy is assessed and collected on the principles of Duty at Source.
Malta	· Tax on import: Charges are made on any goods of a class or description on plastic sacks and bags which further delineates rates of excise duty.
Latvia	· Tax on plastic bags: The law provides for a tax specifically on plastic bags 4,80 euro/kg for lightweight plastic bags, 1,50 euro/kg for plastic bags thickness of material of which is more than 50 microns and the weight of one bag is more than three grams

Countries which regulate plastic bags through levies or fees are provided in Table 17 below.

Table 17: Country examples of the regulation of plastic bags through levies or fees

Countries	Regulation by payment of levies or fees
	Levies
Bosnia Herzegovina	· Levy paid by retailers of plastic bags: The levy for placing in the market a plastic bag is 0,05 KM per piece and 50 KM per a pack of 1000 bags. Levies are paid by the retailers directly to the Environmental Protection Fund of Federation twice per year. A 0,025 € levy is paid by the retailers who put plastic bags thinner than 20 microns into circulation.
Ireland	· Levy paid by Retailer on plastic bags: Plastic Bag Levy: Supply to customers of plastic bags will be charged, levied at the point of sale to them of goods or products to be placed in the bags, or otherwise of plastic bags in or at any shop, supermarket, service station or other sales outlet. The amount of the levy is 22 cents for each plastic bag.
Cyprus	· Levy paid by Retailer on plastic bags: The levy charged is 5 eurocents plus 19% VAT from 1 July 2018 onwards. From 1 July 2018, the free distribution of lightweight plastic carrier bags from retailers who make available to the public such bags at the points of sale is prohibited." All retailers who make available to the public lightweight carrier bags at the points of sale, shall charge, at a minimum, 5 eurocents plus VAT for each lightweight plastic carrier bag.
Fiji	· Levy paid by consumer: A levy is charged on plastic bags distributed by businesses prescribed by regulations. the Environment and Climate Adaptation Levy charged on plastic bags is \$0.10c per plastic bag. The Levy on plastic bags is payable by the person to whom a plastic bag is provided.
Israel	· Levy paid by retailer of plastic bags: The Law for the Reduction of the Use of Disposable Carrying Bags-2016 requires a large retailer to pay, for every single carrying bag sold, a levy of 8.54 agorot. A large retailer will not provide a customer with a carrying bag, unless the customer charges the customer no less than the amount of the levy under article 5, plus VAT applicable to the sale.
Colombia	· Consumption tax on plastic bags: This tax is generated when delivering any plastic bag, whose purpose is to load or carry products sold by the commercial establishment that delivers it. This tax is generated when delivering any plastic bag, whose purpose is to load or carry products sold by the commercial establishment that delivers it. Plastic bags that offer Environmental solutions will have differential rates of 0%, 25%, 50% or 75% the full value of the tariff, as long as the following requirements: 1. Biodegradability: Biodegradable plastic bag in an equal percentage or greater than thirty percent (30%) as indicated in the regulations In any case, the plastic bag must not contain substances of interest in its composition 2. Percentage of recycled material in the composition of the bag: 3. Reuse: Plastic bag that, by dynamic load test, show that it is reusable with the maximum load indicated, in accordance with standards.
	Fees
Andorra	· Fees on the distribution of plastic bags: Commercial establishments can distribute plastic bags with a thickness equal to or greater than 50 microns that have a volume equal to or greater than 10 liters, provided that the following applies: All the distributed stock exchanges: At a minimum price of 10 cents of euros for plastic bags manufactured with a minimum of 80% recycled plastic. At a minimum price of 15 cents of euros for plastic bags manufactured with less than 80% recycled plastic.
Bulgaria	· Fees for Plastic bags: Product fees have been adopted for thin plastic bags for shopping with exception of the ultrathin plastics bags without a handhold are offered to the consumers for payment at the point of sale of the goods or products. The Product tax is not due for plastic bags for shopping under the following cumulative conditions: a) the thickness of the bag is at least 25 µm; b) the minimal size of the bag is 390 mm/490 mm in full length; b) they bear a sign in Bulgarian printed on each package of bags. Persons, placing plastic bags on the market, incl. the retailers and persons selling to final consumers must pay the one-off product fee.
China	· Fees on the sale of plastic bags: No exact fee requirement is provided by the law, this is determined by the retailer, but the fee for plastic shopping bags cannot be lower than the manufacturing cost or have any discount or be free. No free plastic shopping bags shall be provided at any commodities retail places, and the price of plastic shopping bags shall be clearly marked and charged separately from the commodity price."
Croatia*	· Fees on the distribution of plastic bags: The law requires that any person who places plastic bags on the market (e.g. retail chains selling / distributing bags) must pay a fee of \$ 1,500.00 per ton.

Countries	Regulation by payment of levies or fees
Czech Republic	· Control of Packaging waste: Packaging Act The law does not stipulate the fixed or minimum price of plastic carry bags, each vendor determines this price itself. The minimum price is at least so high to reimburse the costs corresponding to the cost of plastic bag purchased by vendor. A plastic carrying bag may be provided at the point of sale of the product to the consumer at least for the reimbursement of costs corresponding to the cost of its purchase. This does not apply if it is a very light plastic carrying bag plastic bag with a wall thickness of up to 15 microns which is necessary for hygienic reasons or is provided as a sales package for bulk foods if its use helps to prevent food waste.
Estonia	· Consumer fee: Lightweight and very lightweight plastic carrier bags shall not be supplied to consumers free of charge except for very lightweight plastic carrier bags which are used for ensuring hygiene or for primary packaging of loose food when this helps to prevent food wastage. The retailer determines the fees.
Greece	· Fee on the sale of plastic bags: Lightweight plastic carrier bags of a wall thickness less than 50 µm are subject to an environmental fee. For 2018, the fee is set at 3 eurocents plus 24% VAT (for a total of 4 eurocents rounded up) whereas from 1 January 2018m the fee will be set at 7 eurocents plus VAT (for a total of 9 eurocents rounded up). Plastic carrier bags, including reusable ones, of a thickness between 50 µm to 70 µm are not subject to the environmental fee but cannot be distributed for free unless in the context of a recycling promotional activity nevertheless, domestic law does not set the price of these bags which can be set by the retailer at his / her discretion. It should be noted that the law explicitly provides for the possibility of increasing the environmental fee should the target regarding consumption of lightweight plastic carrier bags not be met.
Italy	· Fee on the sale of plastic bags: Plastic bags not banned from circulation, including biodegradable and compostable bags, cannot be distributed for free. The policy of pricing applies to all types of carrier plastic bags and to very lightweight bags for loose food. The amount of the fee is not prescribed by Law. National legislation provides only the prohibition of free distribution of plastic bags, combined with the duty of retailers-producers to clearly indicate the costs of the bag in the receipt/invoice.
Lithuania	· Packaging waste: The Law provides an obligation to of the Producers and Importers to Manage Packaging and Packaging Waste and pay the costs of collection, transport, preparation for use and use of packaging waste and participation in the security for non-reusable packaging in connection with the management of disposable packaging waste collected in the deposit system and the administration of the security for the non-reusable packaging system, as well as the costs of organizing and conducting public awareness
Luxembourg	· Packaging waste: To reduce sustainably plastic bags consumption on all Luxembourgish territory, 1) the level of annual consumption should not exceed 90 light plastic bags per person by 31 December 2025. very light Plastic bags defined by Article 3-5 are excluded; 2) By 21 December 2018, plastic bags will not be provided freely in stores. very light Plastic bags defined by Article 3 (5) are excluded. There are agreements between the Government, the distributors and the Recycling authority providing for the use of re-usable bags. Agreements also provide the price of disposable bags based on agreement between industry and government
Republic of Korea	· Fee on the sale of plastic bags: Act on the promotion of saving and recycling of resources – For Single-use plastic bags and shopping bags -5 cent/bag.
United Kingdom	· Fee on the sale of plastic bags: Large shops in England charge 5p for all single use plastic carrier bags they provide. From 20th October 2014 all retailers in Scotland must charge a minimum of 5p for each new single-use carrier bag. All retailers are required to charge, not just supermarkets, however smaller businesses are exempt from the requirement to report centrally the numbers of bags sold and how much they have given to charity to minimize administrative burdens. From the 8 April 2013 all sellers of goods in Northern Ireland had to charge their customers at least 5p levy for each single use carrier bag supplied new to enable goods purchased to be taken away or delivered. From 19 January 2015, the levy was extended to all carrier bags with a retail price of less than 20 pence, whether they are considered single use or reusable. In Wales The regulations require all retail sellers of goods to charge 5p per bag. There are certain exemptions. Sellers which employ 10 or more staff must keep certain records.
The former Yugoslav Republic of Macedonia	· Consumer fee: Order for prohibition for the use of bags for transport of goods made of plastics, in shops, stores, warehouses, green markets for retail trades and personal use. exception bags light plastic bag. Charges are 2 MKD (~0,030 EUR) per plastic bag
Republic of Moldova	· Packaging waste: To prevent waste generation in accordance with the provisions of Article 3, and to avoid environmental pollution, it is prohibited to distribute plastic bags free of charge, except for very thin plastic bags. No amount specified

Countries	Regulation by payment of levies or fees
Turkey *	<ul style="list-style-type: none"> · Packaging wastes: Plastic bags starting on 1/1/2019, cannot be provided free of charge to the user or consumer at the point of sale, and cannot be included in any promotions or campaigns that would allow free supply. Very light plastic bags are exempt from this practice. · o) The base fee to be applied to the plastic bags shall be determined by the Ministry considering the market conditions and the proposal of the Packaging Commission composed of representatives of the relevant sector every year and shall remain valid for the following year.
Spain	<ul style="list-style-type: none"> · Fee on the sale of plastic bags: Bags of thickness less than 15 microns intended for uses other than those listed in the definition of very light bags of article 3 d): 5 cents / bag. *Bags of thickness between 15 and 49 microns: 15 cents / bag. *Bags of thickness equal to or greater than 50 microns: 15 cents / bag. *Bags of thickness equal to or greater than 50 microns, with content equal to or greater than 50% recycled plastic but less than 70%: 10-euro cents / bag
Nepal	<ul style="list-style-type: none"> · Consumer fee.: Retailers, super Market and Shopping malls are entitled to charge fee for alternate bag they provided. 0.30 cent to 50 cents
Netherlands	<ul style="list-style-type: none"> · Consumer fee.:Plastic bags cannot be provided for free. This implies that the retailer is obliged to levy a fee when providing plastic bags to. Supermarkets no longer give away free plastic bags at the cash register as of 1 January 2014. The fee is not specified in the regulation.
Paraguay	<ul style="list-style-type: none"> · Consumer fee: Based on size and thickness of the bag the law establishes that as of April 1, 2017, supermarkets self-service stores and stores in general, that in areas destined to collection of merchandise (each cash register), deliver polyethylene bags of only one use for the transport of merchandise, must charge for them, to from the 4 unit (up to 3 units may be delivered in a free), as a minimum price based on size ranging from 100-250 Gas. The charge for the bags, has as objective, to deliver to the consumer bags of polyethylene, which can be reused often, and allocate resources to the awareness campaigns.
Poland	<ul style="list-style-type: none"> · Fees for Plastic bags: An Entrepreneur operating a retail unit or wholesale, in which lightweight plastic shopping bags are offered Intended for packing products offered in this unit, is obligated to collect a recycling fee from a lightweight plastic shopping bag plastic. The recycling fee is not collected from the purchaser of a very light bag plastic shopping. The rate of the recycling fee is PLN 0.20 per one piece of lightweight plastic shopping bag.
Senegal	<ul style="list-style-type: none"> · Fees for Plastic bags: Plastic bags of a thickness greater than or equal to 30 microns, whatever the use for which they are intended, may not be distributed or offered free of charge. The use, possession for sale, offering for sale and the sale or free distribution of plastic bags of a thickness of less than 30 microns shall be punishable by a fine of 50,000 CFA francs.
Slovakia	<ul style="list-style-type: none"> · Packaging waste: The packaging manufacturer who provides light plastic bags for the purchase of goods or products is obligatory (a) to provide them for payment; This obligation does not apply to the providing of very light plastic packaging, b) provide other types of bags. The legislation does not regulate a price for a plastic bag.
Slovenia	<ul style="list-style-type: none"> · Packaging waste: Free distribution of plastic carrying bags is prohibited except for very light plastic bags, but no laws determine the amount of fee that should be imposed by the retailer. The law currently leaves it to distributor to determine the price, and institute a return/exchange program
Uzbekistan*	<ul style="list-style-type: none"> · Fee on consumer: From January 1, 2019 there is prohibition of free issue or inclusion of the cost of packages of polymer films in the cost of goods sold in the territory of the Republic of Uzbekistan, as well as the sale of packages of polymer films below their cost is prohibited. The amount of levy appears to be left to the retailer.

Note: * Countries fee systems are not yet in force but regulations were passed this year.

Return, Collection, Recycling and Disposal of plastic

Many countries have not extended their regulation of plastic beyond the collection of plastic bags as litter or solid waste. However, a range of countries have concentrated on regulating the disposal phase of the plastic life cycle through recycling targets, extended producer responsibility or fees or fines for the disposal of plastic bags. Approaches include requiring the responsible collection and disposal by manufacturers or producers of plastic, retailers and distributors and in some cases the consumer.

Extended Producer

Key Plastic Bag Finding #5: 43 countries have included elements or characteristics of extended producer responsibility policy related to plastic bags within national legislation.

Responsibility

Extended Producer Responsibility (EPR) is a policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle, such as responsibility for clean-up or recycling, or other ways of managing the waste generated by their products put on the market. The OECD Guidance Manual for Governments on Extended Producer Responsibility defines

it as "an environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle, including the shifting of physical and/or financial responsibility, fully or partially, towards upstream producers for treatment or disposal of post-consumer products, and providing incentives to producers to incorporate environmental considerations in the design of their products".

EPR as a policy mechanism relies on the industry to galvanize action to ensure recovery and recycling of packaging. Different approaches are found to incorporate this policy approach in countries which are often found in a patch work of different laws and regulations. EPR as a policy approach consists of a number of elements which were found by researchers in the countries assessed. Some examples include:

- **Responsibility for addressing environmental impacts** e.g. In Australia, EPR is part of lifecycle management of a range of products and can include management of the potential environmental impacts of a product in all stages of production, distribution, use, collection, re-use, recycling, reprocessing and disposal of that product.
- **Recovery and Recycling of bags** e.g. In Mali, the producer and distributor who markets or uses in its activity's plastics or other non-biodegradable packaging is obliged to proceed to recovery of its plastics and packaging used for recycling.

- **Responsibility for return and trade controls** e.g. Gambia requires importers to return plastic or recycle it at own costs, and manufacturers to be responsible for recycling.

Countries whose laws included limited elements of EPR or vagueness in EPR responsibilities were not included in this report as having full EPR systems.²⁶

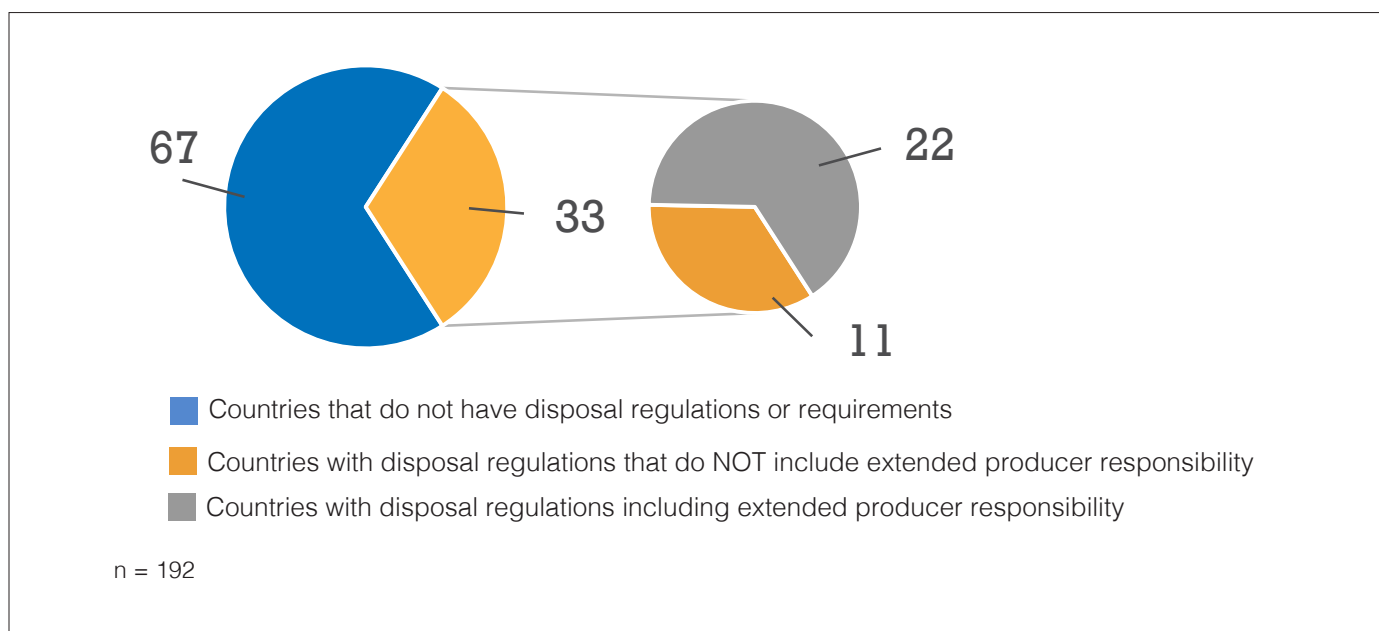
Table 18 provides examples of EPR rules that apply to packaging and plastic bags.

Table 18: Examples of EPR rules that apply to packaging and plastic bags

Country	EPR Rules
Paraguay	There are obligations on the generator to ensure storage in containers suitable for their volume, handling and characteristics, in order to avoid its dispersion.
Zimbabwe	The Agency responsible for plastic waste shall set prevention targets including (a) the disposal of plastic waste by the responsible person in designated receptacles or sites; or (b) the design of plastics containing few pollutants, are recyclable and durable when put to their intended use; or (c) the use of biodegradable plastics; or (d) the creation of the mode of distribution and return systems, that reduce residual plastic waste to a minimum.
Bhutan	With the aim of achieving a more sustainable approach to resource use and a reduction in the quantity of waste going to disposal, the Commission may require producers to take responsibility for the costs of the management of their products when they become waste, by diverting end of life products to reuse, recycling or other forms of recovery and safe disposal. The law indicates that Producers/industries shall be fully responsible for safe and proper disposal of their waste.
Vanuatu	The Minister may by regulation impose requirements in relation to certain wastes that have adverse impacts on the environment or human health by imposing obligations on persons importing, exporting, using or manufacturing certain objects, substances or things which may become waste in relation to their eventual disposal.
Finland	It is the responsibility of the producer to manage waste management and associated costs related to products it has brought to the market. The producer's responsibility applies to discarded products delivered to a reception points or for transportation.
Norway	Producers that place on the market at least 1 000 kg per year of a specific type of packaging shall fund the collection, sorting, recycling and other treatment of used packaging and packaging waste through membership of a producer responsibility organization that has been approved by the Norwegian Environment Agency.

The pie chart provided in Figure 7 outlines countries which regulate the disposal phase of plastic bags through recycling targets, extended producer responsibility etc. and those which do not regulate this phase of the plastic bag life cycle. It outlines the percentage of countries twenty-two percent (22%) which have adopted EPR as part of their regulatory approach in law.

Figure 7 | Number of countries with characteristics of extended producer responsibility



Forty-three (43) country national laws were identified as including characteristics of EPR.²⁷ These countries are provided by region in Table 19. A map of the countries that recognize characteristics of EPR is provided as well.(Map 4)

Map 4 | Countries which include extended Producer responsibility to regulate plastic bags

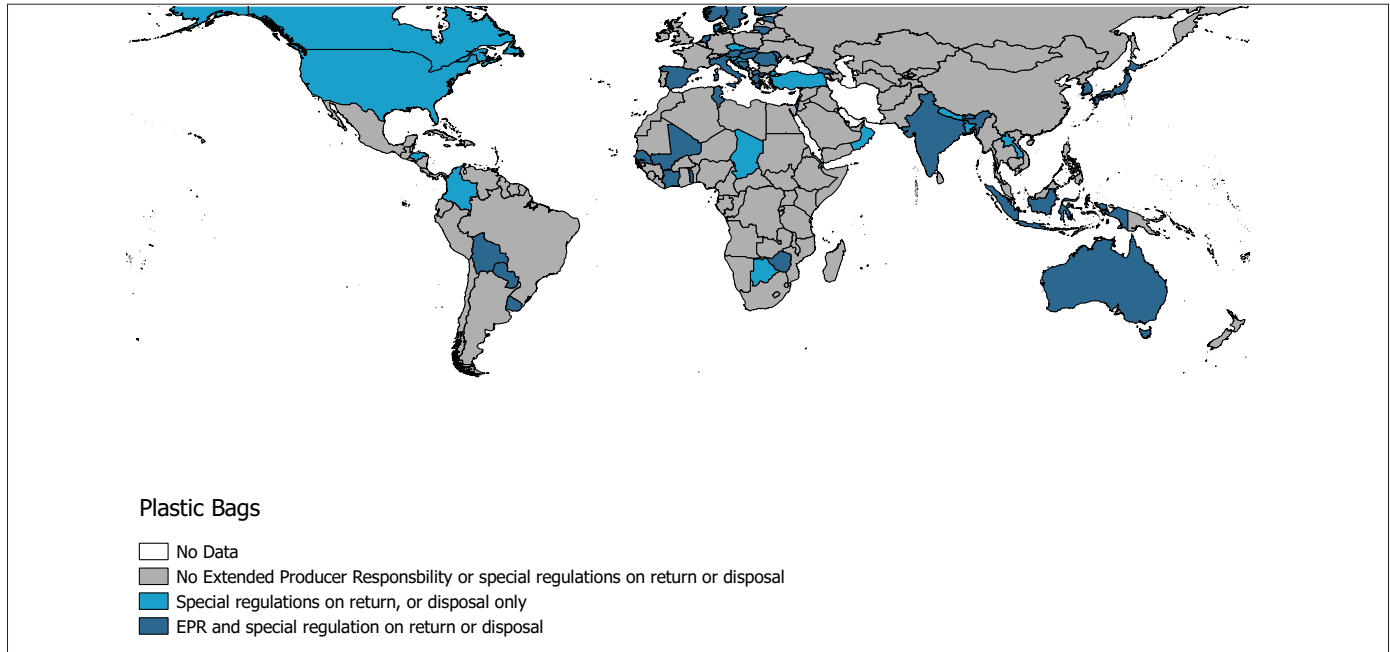


Table 19: Regional distribution of countries that include EPR in the regulation of plastic bags

Countries which include EPR as part of their regulation of plastic bags					
Africa	Latin America and the Caribbean	Europe	Asia and Pacific	Western Asia	US/ Canada
Côte d'Ivoire Gambia Mali Senegal Zimbabwe	Antigua and Barbuda Bahamas Bolivia (Plurinational State of) Paraguay Uruguay	Austria Bosnia & Herz. Cyprus Estonia Finland Georgia Greece Hungary Israel Italy Lithuania Luxemburg Malta Montenegro Netherlands Norway Republic of Moldova Romania Serbia Slovakia Spain Sweden The former Yugoslav Republic of Macedonia	Australia Bhutan India Indonesia Japan Republic of Korea Togo Tonga Vanuatu	Tunisia	

Recycling Targets

Key Plastic Bag Finding #6: There are Fifty-one (51) countries that have adopted requirements to implement recycling targets.

Countries have instituted recycling targets in various forms. Some countries set targets on the number of plastic bags to be collected and recycled such as The former Yugoslav Republic of Macedonia, which sets a minimum of 55% and a maximum of 80% of the weight

of packaging waste created or reused. Lichtenstein only allows plastic bags to be placed on the market if they were manufactured in a specific way so that a certain amount of weight of materials, can be recycled, is used. Others set targets for local authorities to create waste management plans that include recycling components such as India, Ethiopia and Botswana. This approach is also found in the European Union. The EU has a target for 55% of all plastic to be recycled by 2030 and for member states to reduce the use of bags per person from 90 a year to 40 by 2026.²⁸

In some countries recycled targets are limited to prescribed businesses because of the

large volume of packaging they use such as in Japan, which requires the rationalization of their use of packaging and reporting of activities to reduce waste packaging to the national government. Recycling targets are also often linked with efforts to provide replacement of plastic bags with biodegradable, renewable and eco-friendly materials as seen above in relation to partial and full bans of plastic bags.

There are Fifty-one (51) countries that have adopted requirements to implement recycling targets. They are presented in Table 20. Countries that impose a legal mandate for reusable bags are indicated by an asterisk (*).

Table 20: Regional distribution of countries that require recycling within the regulation of plastic bags

Countries with national laws that require the recycling of plastic bags					
Africa	Latin America and the Caribbean	Europe	Asia and Pacific	Western Asia	North America
Botswana Cameroon CAR Chad Ethiopia Gambia Mali Senegal Tunisia	Bolivia (Plurinational State of) Brazil Paraguay* Uruguay	Austria Croatia Cyprus* Czech Rep. Estonia Finland Georgia Greece* Hungary Israel Lichtenstein Lithuania Luxemburg Malta Montenegro Netherlands Norway Portugal* Republic of Moldova Slovakia Spain Sweden The former Yugoslav Republic of Macedonia Turkey*	Australia Bhutan Cambodia* India Indonesia Japan Lao People's Democratic Republic Mongolia Philippines Republic of Korea Samoa Togo Tonga Tuvalu Vanuatu*	Qatar	N/A

*Countries whose laws also promote the use of re-usable bags

Fines related to Plastic Bag Legislation

Most countries have solid waste or litter legislation to govern the disposal of plastic bags. A few countries were identified in addition to these laws to have specific fines for breach of plastic bag specific rules or packaging or waste generation rules. Some examples of countries that have adopted criminal offences or fines for breach of national bans or other legal requirements related to plastic bags as packaging are outlined in Table 21 below.

Table 21: Examples of fines related to plastic bags within Legislation

Country	Year law passed	Fine for breach of plastic bag rules
Benin	Law No. 2017-39 of 26 December 2017 prohibiting the production, importation, exploitation, marketing, possession, distribution and use of non-biodegradable plastic bags in the Republic of Benin	<p>Article 12: Any natural or legal person who produces, imports or exports plastic bags in contravention of the provisions of Article 4 shall be punished with an amount of five million (5,000,000) to fifty million (50,000,000) CFA franc, without prejudice to the additional penalties of withdrawal of authorization or authorization, freezing and confiscation of assets, provisional or definitive closure that may be pronounced. The representatives of this legal person are liable to imprisonment from three (03) months to six (06) months. In case of recidivism, these are doubled</p> <p>Anyone who markets, distributes or holds plastic bags in contravention of the provisions of Article 4 of this Law, shall be punished by an amount of one hundred thousand (100,000) to five million (5,000,000) CFA francs and a term of imprisonment of three (03) to six (06) months. Any natural or legal person who sells or sells for free, the unauthorized bags is punished with an amount ranging from ten thousand (10,000) to five hundred thousand (500,000) CFA francs and imprisonment of three (3) to six (6) months.</p>
Estonia	Waste Act (2004) subsection 120	Violation of requirements for prevention of waste generation or for waste management (as packaging material) (1) Violation of the requirements for the prevention of waste generation or for waste management or deposit of waste outside of waste management facilities is punishable by a fine of up to 300 fine units. (2) The same act, if committed by a legal person, is punishable by a fine of up to 3200 euros.
Gambia	Regulation 4- Ban on Plastic Bags Order, 2015- Regulations made under the National Environment Management Act	Reg. 4 A Person who a) manufactures or imports b) uses; or c) sells plastic bags in the Gambia commits an offence.
Kenya	Gazette Notice No. 2334, Issued on March 14, 2007 under the Authority of Sections 3 and 86 of the Environmental Management and Coordination Act cap 387 on Plastic Bags.	Any person who— (a) contravenes any environmental standard prescribed under this Act; (b) contravenes any measure prescribed under this Act; commits an offence and shall be liable upon conviction, to a fine of not less than one year but not more than four years or to a fine of not less than two million shillings but not more than four million shillings, or to both such fine and imprisonment.
Nepal	Environmental Protection Act 1997, Section 18	Fine of up to NRs 50000 (US\$ 500) for breaching the Plastic Bag Monitoring and Control Guideline 2011.

City level regulation of plastic bags

This report finds that a number of countries have adopted national level approaches to plastic bag regulation. However, several countries including several large federal states such as the US, Argentina, Australia, Brazil, and India regulate plastic bags at the sub national level. While the review of all subnational regulation of plastics is outside of the scope of the report we provide some examples of city level regulation below.

In Argentina the Ministry of Environment and Sustainable Development has a unit of sustainable cities (ciudades sostenibles) which is in charge of the issues related with plastic bags. This Unit is working with the plastic workers' union (sindicato de trabajadores del plastic), the chamber of plastic recyclers (la cámara de recicladores plásticos) and other civil organizations that are related to the matter in order to create strategies to ban and/or reduce the use of conventional plastic bags. At the subnational level, a number of provinces have already taken action include the provinces of Neuquén, Río Negro Chubut, Buenos Aires which prohibits the delivery and sale of plastic bags, which do not meet the characteristics of being degradable, oxobiodegradable, biodegradable, hydrodegradable and include Programs for the Reduction and Progressive Replacement of polyethylene bags, polypropylene or another kind of nonbiodegradable bags.

In Brazil, Rio de Janeiro State enacted Law 5502 of 2009, which

provides for the replacement and collection of plastic bags in commercial establishments to support recycling. While in the state of Minas Gerais, the city of Belo Horizonte that mandates the use of eco-friendly bags instead of plastic bags.

In Belgium, plastic bags are regulated at the regional level including the Brussels-Capital region, where the use of single-use plastics is banned in retail areas, checkout bags are banned since 1st September 2017 and packaging bags from 1st September 2018. Exemptions are provided for specific types of plastic bags.

In the Philippines while there is no national law or regulation on plastics, 59 cities and municipalities, mostly in and around the national capital region, have enacted local ordinances that ban or charge a levy on plastic bags.

In the US, Only California and Hawaii have state wide bans on non- biodegradable plastic bags. In addition, Washington D.C. passed Legislation to help protect the Anacostia River, and money raised from the plastic bag levy is helping to clean up the river. 6 cities have plastic bag bans (Austin, Boston, Chicago, Los Angeles, San Francisco and Seattle Washington. 6 counties/ cities have plastic bag fees (Boulder, Brownsville, Montgomery Country, New York, Portland, Washington DC. 10 states have outlawed plastic bag bans including in Arizona, Florida, Michigan, Wisconsin, Idaho, Minnesota, Mississippi, Missouri, Indiana, Iowa.

In Canada both towns and

municipalities have instituted bans on plastic bags. Montreal and Victoria have announced plans to ban bags in 2018. Vancouver, BC, home to Plastic Oceans Foundation Canada Founding Office, is one of the world's Greenest Cities and has an ambitious goal to become a zero-waste community by 2040 with the elimination of all single use products including plastic bags.

In Australia most of its six states territories have taken action to ban plastic bags with thickness of up to 35 microns including South Australia: Banned since 2009, Australian Capital Territory: Banned since 2011, Northern Territory: Banned since 2011, Tasmania: Banned since 2013, Queensland: Ban from July 1, Western Australia: Ban from July 1, Victoria: Ban this year, New South Wales: No ban

Single Use Plastics (SUP) consist of two families of polymers— thermoplastics and thermosets— the defining difference being their malleability when heat is applied. Thermoplastics can be melted down and reshaped after they have been set while thermoset plastics can only be formed once (United Nations Environment Programme, 2018). The most prevalent single-use plastic waste items are thermoplastic polymers, including Polyethylene Terphthalate (PET), Polypropylene (PE), Low Density Polyethylene (LDPE), High Density Polyethylene (HDPE), Polystyrene (PS), Expanded Polystyrene (EPS), Polyvinyl-chloride (PVC), Polycarbonate, Polypropylene (PP), Polylactic acid (PLA), and Polyhydroxyalkanoates (PHA) (Table 22).

AN OVERVIEW OF REGULATORY APPROACHES CONTROLLING SINGLE USE PLASTIC ITEMS

This section provides a global overview of countries that have established some form of national legislation to regulate single use plastic items.

Regulatory Approaches

This section surveys the regulatory approaches to address the problem of single use plastic item pollution. The two main mechanisms employed by national governments are bans or restrictions on the manufacture, use, distribution, sale, or trade of single-use plastics and market-based instruments such as taxes or levies.

Bans and prohibitions on the manufacture, use, distribution, sale, or trade of single-use plastics

Key Single Use Plastics Findings #1: Twenty-seven (27) countries have enacted through law some type of ban on single-use plastics—either on specific products (e.g. plates, cups, straws, packaging), materials (e.g. polystyrene) or production levels.

Table 22: Polymer types and commonly associated plastic products

Polymer type	Common products
Low-Density Polyethylene (LDPE)	Bags, trays, containers, food packaging film
High-Density Polyethylene (HDPE)	Milk bottles, freezer bags, shampoo bottles, ice cream containers
Polyethylene Terphthalate (PET)	Bottles for water and other beverages, dispensing containers for cleaning fluids, biscuit trays
Polystyrene (PS)	Cutlery, plates, and cups
Expanded Polystyrene (EPS)	Hot drink cups, insulated food packaging, protective packaging for fragile items
Polypropylene (PP)	Microwave dishes, ice cream tubs, potato chip bags, bottle caps

Adapted from: (United Nations Environment Programme, 2018)

Twenty-seven countries have enacted bans of some type on the manufacture, distribution, use, sale, and/or import of single-use plastics. Bans exist in all regions of the world, but small island states (small, low-lying coastal countries and islands scattered in the different regions of the world, which face specific social, economic and environmental vulnerabilities), are overrepresented, perhaps due to a reliance and connection to marine ecosystems and tourism impacted by plastic pollution. All bans have some exceptions—in other words they do not apply to all disposable plastic products. In 22 countries, bans target specific

products, such as plates, cups, and utensils. In 16 countries, specific materials (polymers) are banned, most commonly polystyrene and expanded polystyrene. In some cases, particular uses of plastics are targeted, such as polystyrene utensils and takeout boxes in food service establishments. In a few (2) cases, countries have established production restrictions, limiting the quantity or thickness of single-use plastics, or requiring a percentage of recycled material. Figure 8 below provides an overview of the number of different ban types.

Bans may target the production, distribution or sale, use, or import of single-use plastics. Nearly half of existing bans targeted all these processes while the rest only targeted one or some.

A more in depth look at the 27 existing bans reveals that most have come into force since 2012, although a few were passed in 2008 or earlier. The most commonly targeted polymers are polystyrene and expanded polystyrene and the most commonly targeted products are for the packaging, carrying and consumption of food. The Seychelles stands out for its

Key Single Use Plastics Findings #2: None of the plastic single use item bans are “total”. In other words, exceptions exist for certain products or materials, such as for so-called biodegradable plastics.

level of detail in defining plastic by its various polymers. Canada’s ban is part of a larger circular economy initiative and green growth act, while most are regulations specifically focused on reducing waste. The majority of bans do not specify enforcement provisions, such as fines or prosecution. Notably, there are 10 small island states from the Caribbean, Africa, South Asia, Europe, and the Pacific that have enacted bans. However, several landlocked countries have also enacted bans, including Burkina Faso, Austria, Liechtenstein, San Marino, and Zimbabwe.

MAP 5 | Bans on Single-Use Plastics

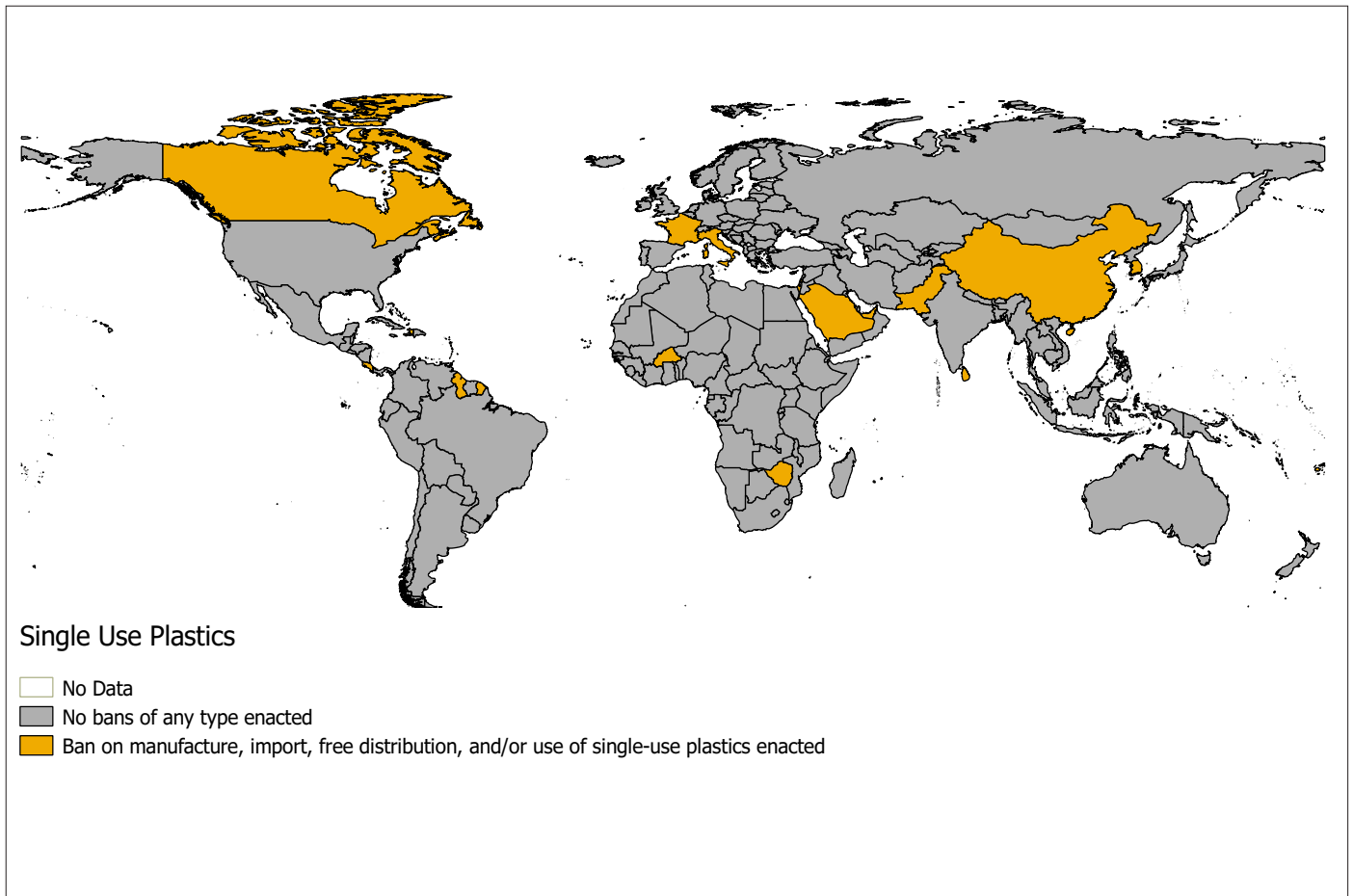
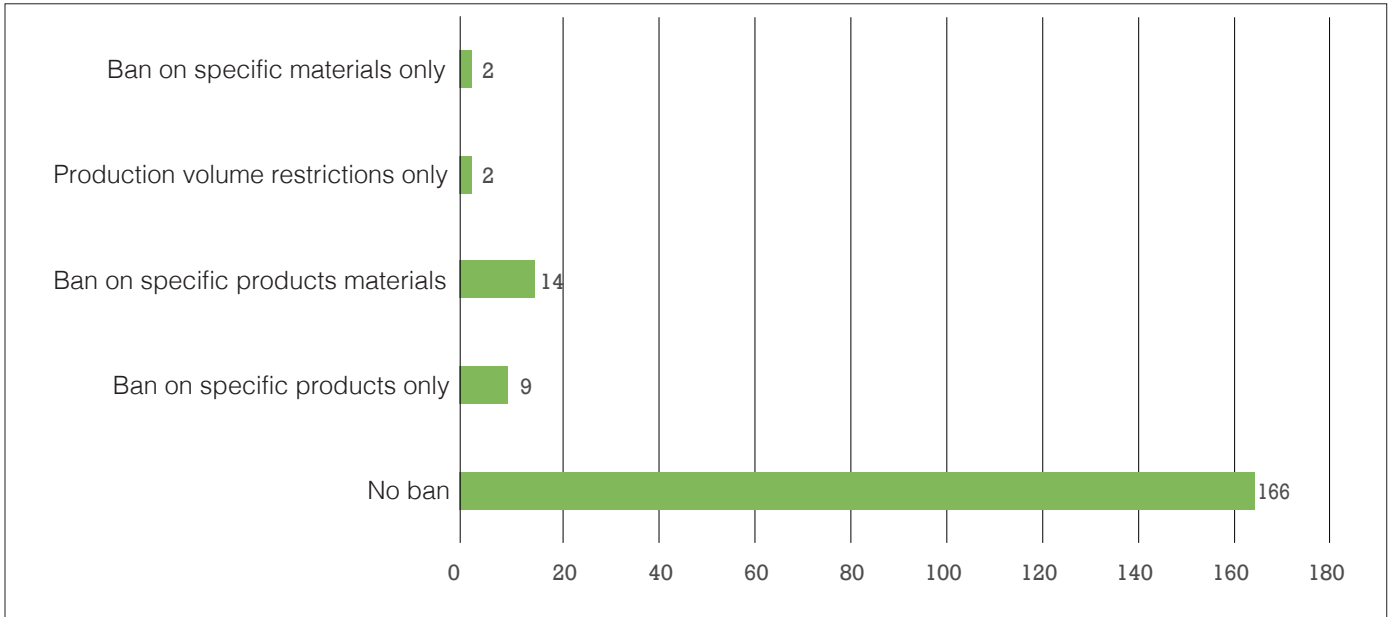
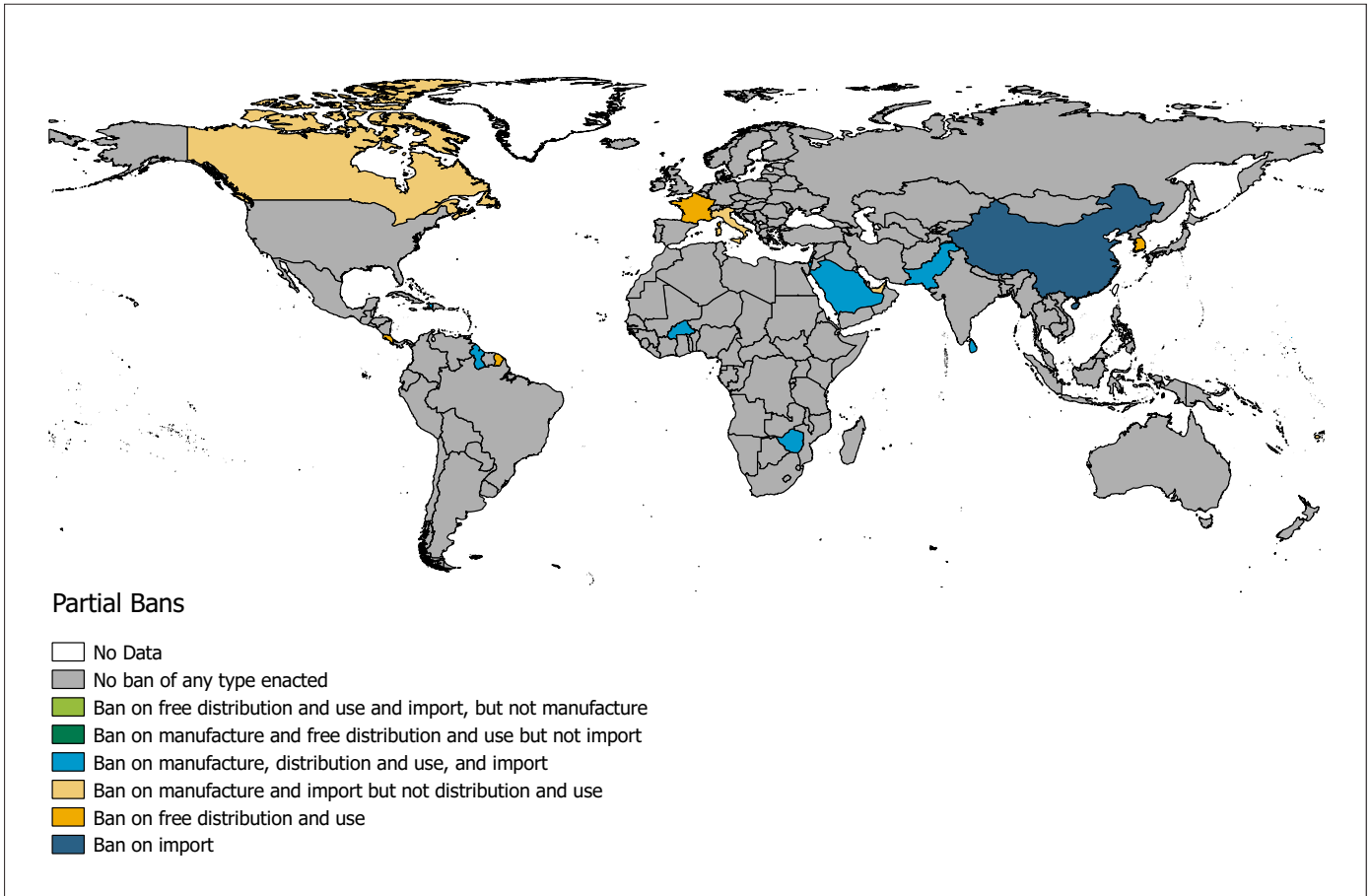


Figure 8 | Number of bans by type



MAP 6 | Partial Bans on Single-Use Plastics



MAP 7 | Bans on specific Products

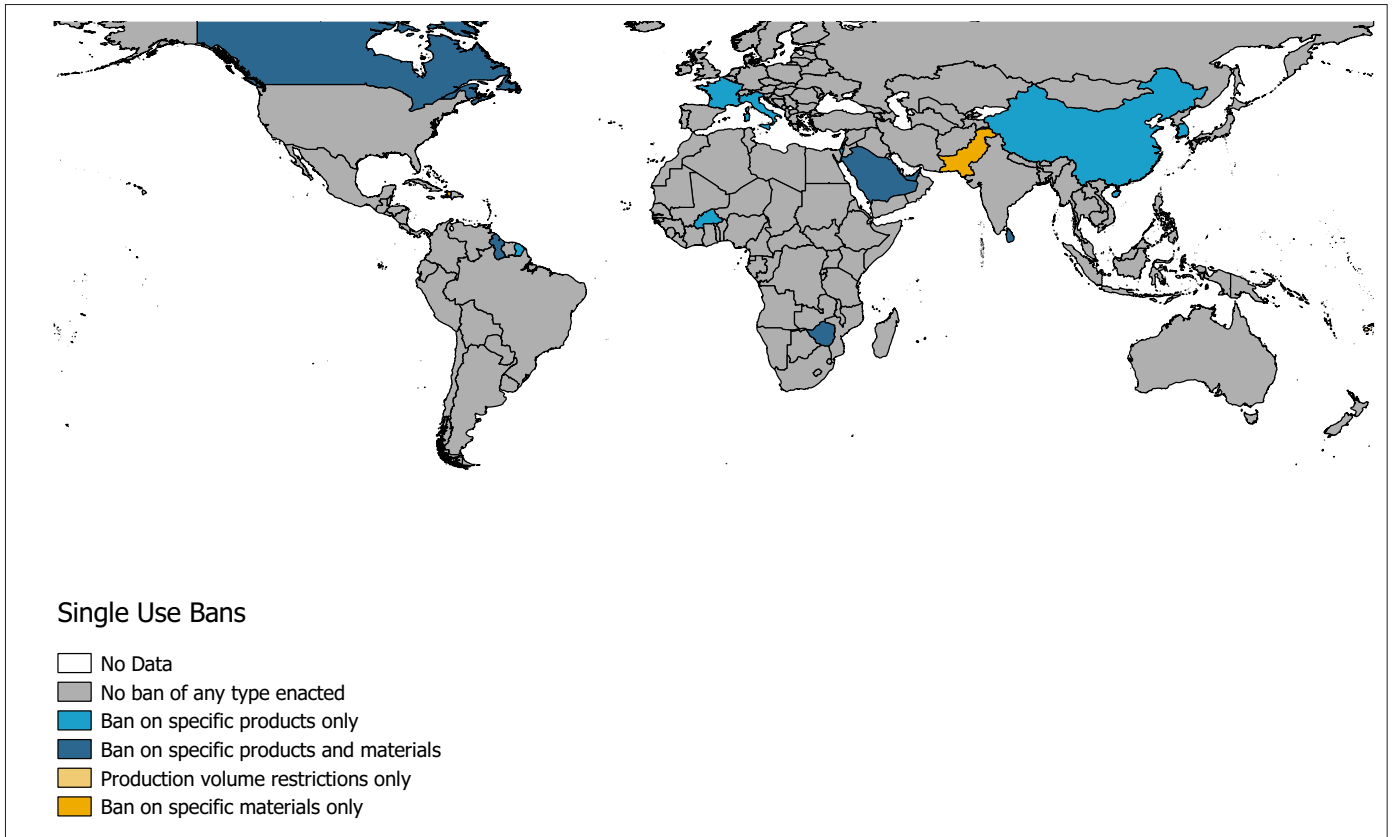


Table 23: National bans and restrictions on single-use plastics

Country	Type of ban or restriction	Legislation
Antigua and Barbuda	Material and product ban: Ban on expanded polystyrene products in the food service industry	Ban on the importation and use of Styrofoam food service products, 2017
Burkina Faso	Product ban: The production, importation, marketing or distribution of packaging and non-biodegradable plastic bags intended directly for sanitary activities, scientific and experimental research or for the purpose of security and national security, are subject to a special authorization issued by the Minister charge of industry, commerce and craftsmanship based on advices from the Minister in charge environment and sustainable development	Law N ° 017-2014 /AN on the prohibition of the production, import, marketing and distribution of non-biodegradable plastic packaging and plastic bags
Canada	Material/Product ban: Ban on manufacturing, use, and import of rigid foam plastic produced through use of CFCs or HCFCs ¹	Ozone-depleting Substances and Halocarbon Alternatives Regulations 2016/137
China	Material/product ban: Ban on the import of used plastics for use as raw materials, including plastic bags, films, and nets, and polyvinyl, styrene polymer, PET	Notice on adjusting the managing category of imported wastes” (02/26/2014) Exhibit 1 Prohibited Wastes, No. 80; 2
Costa Rica	Material/product ban: A ban on single-use plastics (including polystyrene) in food service areas of government institutions	Directive 14, 2018
Fiji	Production/distribution restriction: Facilities must have a plastic bottle permit from work permit committee in order to manufacture or import plastic bottles. Application for permit must include measures taken to collect and recycle bottles.	Environmental Management (Waste disposal and recycling) Guidelines 2007
France	Product ban: By January 1st, 2020, distribution of disposable “kitchen cups, glasses, and plates made out of plastic” as well as cotton swabs with plastic sticks is prohibited	Energy Transition for Green Growth Act n°2015-992 of 18 July 2015, Title IV “Combating wastage and promoting circular economy: from design to recycling”
Haiti	Material ban: The manufacture, import, and use of polystyrene products is banned	Presidential Ban in Favor of Environmental Protection, 2012
Israel	Product restriction: Prohibits the manufacture and import of beverage containers that require a deposit without the label containing the words “owe deposit”	Deposit on beverage containers law, 1999, Article 3
Italy	Product ban: Manufacture and sale of cotton swabs with a plastic stick will be banned starting January 1, 2019	Law n. 205/2017, Art. 1, Section 545
Guyana	Material ban: The manufacture, use, distribution, and import of polystyrene containers for food service establishments is banned	Regulation 8 of 2015 under Environmental Protection Act
Liechtenstein	Production restriction: Packaging must be designed and manufactured to limit the volume and weight to the minimum necessary to ensure safety and hygiene while also ensuring the material can be recycled or reused	Article 5 Section 1 Regulation on Packaging and Packaging Waste (Verordnung über Verpackungen und Verpackungsabfälle), Annex II Council Directive 94/62/EC on packaging and packaging waste.
Malta	Product restrictions: Packaging, plates, cups, and some beverage containers must be designed, manufactured, and sold in such a way to permit their reuse or recyclability	Waste Management Regulations 549.43, 2007

Marshall Islands	Material/Product ban: a ban on the importation, manufacture, sale and distribution of polystyrene cups and plates, disposable plastic cups and plates and plastic shopping bags	Styrofoam and Plastic Products Prohibition Act 2016, S. 3
Mauritius	Product ban: Ban on plastic banners	Environment Protection (Banning of Plastic Banners) Regulations 2008.
Monaco	Material/Product ban: The manufacture, distribution or sale of plastic utensils made of less than 40% "bio-based" materials is banned	Sovereign Ordinance No. 5.831 of 9 May 2016 on Plastic Bags and Utensils and the Ministerial Decree No. 2016-307 of 9 May 2016 on Plastic Disposable Bags and Utensils
Pakistan	Product ban: Ban on the manufacture, import, sale, and use of non-biodegradable plastic products in the Islamabad Capital Territory	Environment Protection Act 1997 of Pakistan, SRO No 5 (KE) 2013
Republic of Korea	Ban on free distribution: Disposable products, including PET bottles, plastic plates, utensils, cups and other disposable packages cannot be provided free of charge	Article 10 of Act on the promotion of saving and recycling of resources (Control etc., of use of disposable products); 2015
Saint Vincent and the Grenadines	Material and product ban: Ban on manufacture, use, sale, and import of all expanded polystyrene products in the food service industry. Measure was phased in from 2017-2018 and is fully in force as of January 31, 2018. Fine of up to 5,000 EC and up 12 months jail time or both for violators	Environmental Health (Expanded Polystyrene) Regulations 2017
San Marino	Organizers of public events must only provide reusable tableware, cutlery and cups, or made of biodegradable thermoplastic materials (bioplastic), and provide returnable beverage containers.	Waste Management Regulation (Board of Directors Resolution A.A.S.S n°46 of 23/05/2013), article 30 Cleaning and waste collection in the areas used for public events §3 b) c) d)
Saudi Arabia	Material and product ban: Prohibited to manufacture, advertise, sell, import, or use polypropylene and polyethylene plastics intended for one-time use, including personal care products, plastic bags intended for one-time use, and disposable food products such as spoons, plates, and cups	Technical Regulation No. (MA-156-16-03-03) on the biodegradable plastic products of in the local markets
Seychelles	Material and product ban: Prohibition on the manufacture, import, distribution, and sale of polystyrene boxes and plastic utensils. Plastic is defined as: "material which contains as an essential ingredient a high polymer such as polyethylene terephthalate, high density polyethylene, vinyl, low-density polyethylene, polypropylene, polystyrene resins, multi-materials like acrylonitrile butadiene styrene, polyphenylene oxide, polycarbonate, polybutylene terephthalate "	S.I. 38 of 2017 Environment Protection (restriction on importation, distribution, and sale of plastic utensils and polystyrene boxes) Regulations 2017
Sri Lanka	Material/product ban: 1) Ban on the manufacture, distribution and use of food containers, plates, cups, and spoons made from polystyrene and lunch wrappers (a commonly used item in Sri Lanka) made from polyethylene. Separately, 2) the import of disposable polystyrene boxes and polymers of ethylene, styrene and vinyl chloride are controlled.	Executive Order as gazetted No. 2034/34 of September 1, 2017 provided for by Article 51 of the 19th Amendment to the Constitution and the National Environmental Act No. 47 of 1980 as amended, S. 23. 2) Imports and Exports Control Act No. 1, 1969; Gazetted 2044/40 and 2044/41 of September 11, 2017.
Tuvalu	Material/product ban: The manufacture, sale, distribution of plastic foam products (including polystyrene foam, board stock, egg cartons, food containers, disposable plates and cups, and horticulture netting) is banned.	Ozone Depleting Substances Regulations 2010.

United Arab Emirates	Material/product ban: The manufacture and import of non-biodegradable semi-rigid plastic packaging for food, magazines, consumer durables, garbage bags, shrink wrap, pallet wrap, and other disposables is banned.	Standard & Specification for Oxo-biodegradation of Plastic bags and other disposable Plastic objects; Specific Requirements for the Registration of Oxo-biodegradable Plastic Objects according to UAE Standard 5009: 2009 (Revision 1, March 1, 2014)
Vanuatu	Material/product ban: The manufacture, distribution, use, and import of plastic straws and polystyrene products, including takeout boxes, food packaging, disposable plates and cups, and horticultural netting	Waste Management Act 24 of 2014
Zimbabwe	Material ban: The manufacture, distribution, use, and import of plastic packaging of a thickness of greater than 30 micrometers and polystyrene is prohibited	The Environmental Management (Plastic Packaging and Plastic Bottles) Regulations, 2010 as amended by Statutory amendment 84 of 2012.

Table 24 shows the breakdown of ban types by region, showing that bans have been enacted in a range of countries of different income levels and across regions.

Table 24: Bans and Restrictions by Region

Region/Country	Ban on Manufacture	Ban on Free Distribution	Ban on Import
Africa			
Burkina Faso	✓	✓	✓
Mauritius		✓	
Seychelles	✓	✓	✓
Zimbabwe	✓	✓	✓
Asia & Pacific			
China			✓
Marshall Islands	✓	✓	✓
Pakistan	✓	✓	✓
Rep. of Korea		✓	
Sri Lanka	✓	✓	✓
Tuvalu		✓	✓
Vanuatu	✓	✓	✓
Europe			
France		✓	
Israel	✓	✓	✓
Italy	✓		✓
Lichtenstein	✓	✓	
Malta	✓		✓
Monaco	✓	✓	
San Marino		✓	
LAC			

Antigua & Barbuda		✓	✓
Guyana	✓	✓	✓
Haiti	✓	✓	✓
St. Vincent & the Grenadines	✓	✓	✓
Uruguay	✓		
North America			
Canada	✓		✓
West Asia			
Saudi Arabia	✓	✓	✓
UAE	✓		✓

Bans on specific products most commonly focused on those associated with food service and delivery—a common disposable. Twelve countries target plates, cups, stirrers, and/or utensils while five target takeout containers and six target plastic bottles and beverage containers. (Figure 9)

Key Single Use Plastics Findings
#3: Small Island States have been disproportionately more likely to enact bans on single-use plastics—37% (10 countries) of national bans have come from these countries.

Box 1: European Union Regional Initiatives to Reduce Plastic Waste

The European Union has recognized its role as in reducing plastic-based marine litter by developing a Plastics Strategy that includes directives to prevent and reduce plastic waste. For single-use plastics, this includes a Directive on Packaging and Packaging Waste—created initially in 1994 (Directive 94/62/EC) and updated over the past two decades (Directive 2015/720) to better clarify the definition of packaging and to explicitly include single use plastics. These support the Waste Framework Directive (2008/98), the Marine Strategy Framework Directive (2008/56/EC), and the Urban Wastewater Treatment Directive (91/271/EEC).

In 2018, the EU proposed a Directive intended to reduce single-use plastics as a central part of its Plastics Strategy.

Box 2: Selected Examples of Subnational Action

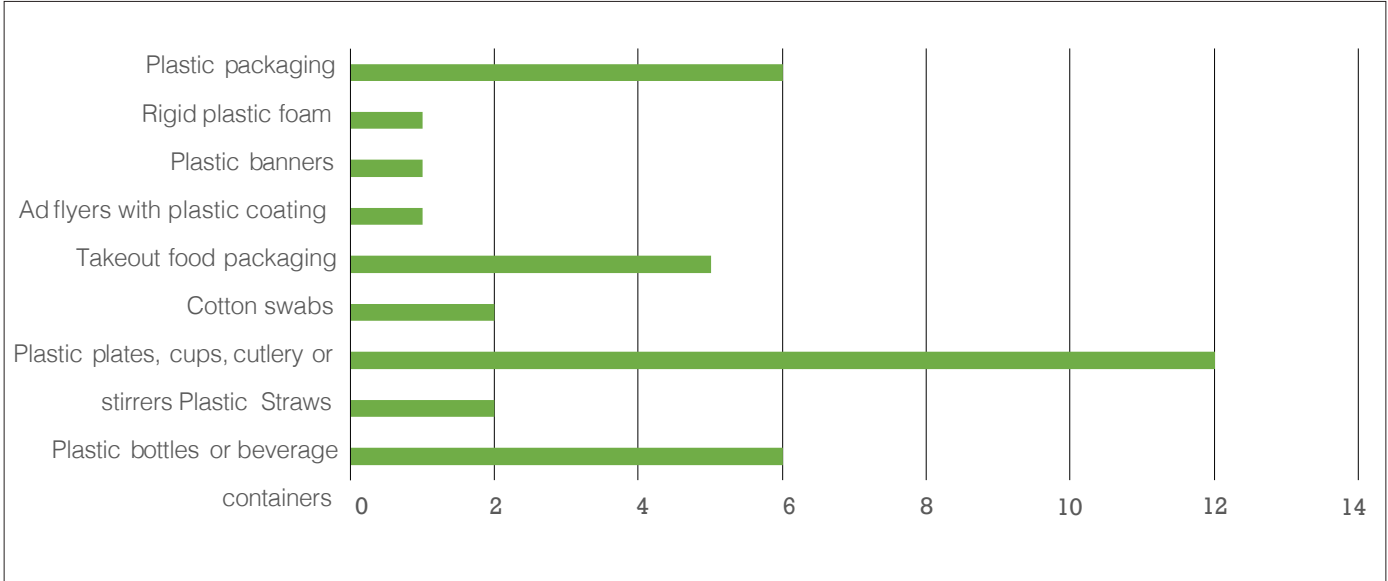
While this report focuses on national-level legislation and regulation, it's important to note that significant action to reduce plastic pollution is taking place at the subnational level through the efforts of states, cities and other jurisdictions. The following examples highlight a few of these efforts:

Seattle, Washington (USA) became the first US city to ban plastic utensils and straws in restaurants when its new ban went into force on July 1, 2018. The ban is part of a 2008 ordinance that requires food service establishments to seek recyclable or compostable alternatives to disposable containers, cups, straws, utensils, and other products (CBS/AP, 2018). The ban will affect the city's estimated 5,000 restaurants.

The Indian state of Maharashtra banned the manufacture, usage, distribution, sale, storage, and import of plastic bags and disposable products made from plastic (including polystyrene). This includes cups, utensils, plates, glasses, containers, and plastic packaging. There are exceptions for use in the medical, agricultural, waste, food storage, and export fields. Fines have been set at the equivalent of US\$68 for first offenders, which doubles for a second offense. Third offenses may result in a fine of the equivalent of US\$340 and possible imprisonment (Indian Express, 2018)

The City of Malibu, California (USA) began enforcing a ban on the use, distribution, and sale of single-use plastic straws, stirrers, and cutlery from retail stores and restaurants on June 1, 2018.

Figure 9 | Bans on Specific Products



Market-based Instruments

Key Single Use Plastics Findings #4: Twenty-nine (29) countries have enacted some type of tax on single-use plastics, either as a special environmental tax, waste disposal fees or charges, or in the form of higher excise taxes for single-use plastics.

Taxes on Manufacturers or Producers, Importers, and Retailers

Twenty-nine (29) countries have enacted some type of tax on single-use plastics, either as a special environmental tax, waste disposal fees or charges, or in the form of higher excise taxes for single-use plastics. The taxes are aimed at reducing single-use plastics as a category of waste, managing plastic waste or increasing the rate of postconsumer recovery or recycling, or other environmental and circular economy initiatives. In terms of regional distribution, Europe has 17 countries that tax single-use plastics, more than any other region. Five (5) countries in Latin America and the Caribbean, four (4) in Africa, and three (3) in Asia and the Pacific, impose some form of tax. The research shows that two (2) regions, West Asia and North America, do not have national or federal tax regulations concerning single-use plastics. Table 25 shows the regional distribution and types of tax measures on single-use plastics.

Table 25: Types of taxation on single-use plastics

Region	Country	Tax Regulation
Africa	Benin	Eco-taxes on disposable plastic packaging (Ecotax under the Finance Act).
	Lesotho	Environmental levy on articles for the conveyance or packing of goods, plastic stoppers, caps, lids, and other closures of plastics manufactured or imported into the country (Schedule to the Customs and Excise Act).
	Morocco	Ecotax on the sale and importation of end products made of plastic (Eco-tax based on the Framework Law on the Environment and Sustainable Development).
	Tunisia	Ecotax on any plastic product manufactured or imported into the country (Ecotaxes, Finance Law).
Asia & Pacific	India	Excise tax at higher rates for plastic packaging and single-use products including tableware and kitchenware (compared to glass, wood and tin packaging) (Goods and Services Tax Act).
	Marshall Is.	Deposit beverage container fee on each deposit beverage container manufactured or imported into the country (Styrofoam cups and plates and Plastic Products Prohibition and Container Deposit Amendment Act).
	Palau	Deposit beverage container fee on distributors (manufacturers and importers) of filled deposit beverage containers (The Palau Recycling Act).
	Albania	Excise tax for plastic packaging at higher rates than glass and other packaging (National Tax Law).
Europe	Bulgaria	Product fee for packaging materials, including articles for one-time use such as cups, buckets, etc., used for packaging goods at point of sale, subject to exemption for producers participating in a collective system of waste recovery, reuse and recycling, or individually fulfilling those obligations in the manner prescribed by regulations (Waste Management Act).
	Croatia	Refund fee to be paid by producers that place packed drinks on the market, to be used for taking back used beverage packaging, and waste management fee to cover collection and processing of waste packaging (Regulation on Packaging and Packaging Waste).
	Denmark	Levy on certain packaging, including beverage packaging and disposable tableware (The Packaging Tax Act).
	Estonia	Packaging excise duty for plastic packages (The Packaging Excise Duty Act).
	Finland	Excise duty on retail containers of alcoholic beverages and soft drinks, with exemption for containers that are included in a deposit-based return system and which can be refilled or used for raw material recovery (Act on Excise Duty on Certain Beverage Containers).
	Hungary	Environmental product fee for packaging materials marketed in the country (Act on the Environmental Product Fee).
	Israel	Plastic beverage container deposit for each marked beverage container containing a drink and marketed in the country; provided that, failure to meet annual collection targets for used beverage containers will pay double the deposit fee for the difference (Deposit on Beverage Containers Law).
	Italy	Environmental contribution towards waste collection, recovery, reuse and recycling, based on the total quantity, weight and type of packaging placed on the national market, including disposable packaging designed or intended to be filled at the point of sale (Environmental Code).
	Latvia	Tax on the packaging of goods and products and disposable tableware and accessories; with exemption granted to taxpayers that have with established and applies a used packaging or disposable tableware and accessories management system in accordance with relevant regulations (Natural Resources Tax Law).
	Lithuania	Pollution tax for products and/or packaging waste (Law on Pollution Tax).
	The former Yugoslav Republic of Macedonia	Fees or compensation for managing packaging waste for goods manufacture and imported, including primary packaging such as single-use plates and cups, and plastic bottles (Law for Packaging and Packaging Waste Management).

	Montenegro	Special fee for placing in the market manufactured or imported packed goods (higher rate for goods made non-biodegradable materials) and deposit beverage container fee on each beverage container manufactured or imported into the country (Regulation on Detailed Criteria, Amount, and Manner of Payment of Special Fees for Waste Management).
	Norway	Environmental tax on manufacturers and importers of recyclable bottles in PET plastic. The tax is in addition to basic tax imposed on recyclable bottles or cans. The environmental tax decreases in line with the return rate (i.e., number of bottles collected individually or as a group under EPR), starting with a 25% return rate. At a 95% return rate, the environmental tax will cease completely (Environmental Tax under excise tax laws).
	Republic of Moldova	Environmental pollution levy for goods that during their use pollute the environment, including primary plastic packaging containing products manufactured or imported into the country (Law on Payment for Environmental Pollution).
	Slovenia	Environmental tax on manufacturers for packaging that is designed and intended to be filled at the place of retail (single-use plates and cups), with exemption for packaging put on the market below 15000 kg annually (Decree on Environmental Tax on the Generation of Packaging Waste).
	Uzbekistan	Environmental fee on manufactured and imported goods and packaging disposed of after loss of consumer properties (Resolution on Measures to Further Improve and Develop the Sanitation System).
LAC	Antigua & Barbuda	Environmental levy on plastic beverage containers for aerated, carbonated and non-carbonated drinks, whether filled or empty, manufactured, imported or used in the country (Environmental Protection Levy Act, 2002).
	Jamaica	Environmental protection levy on plastic goods manufactured or imported into the country (Environmental Protection Levy Order)
	St Kitts & Nevis	Deposit levy on all aerated beverages bottled in non-returnable bottles manufactured or imported, subject to refund on re-export or used bottles or other acceptable disposal arrangements (Trade (Bottles and Cans Deposit Levy) Act).
	St Vincent & the Grenadines	Deposit levy on beverages bottled in non-returnable bottles, subject to refund on re-export or used bottles or other acceptable disposal arrangements (Environmental Levy Act).
	Uruguay	Tax on containers for bottling beverages (Value-added tax on PET PACK Manufacturers and Importers).

Regulation of Single-use Plastic Disposal

Regulation of the disposal of single use plastic items includes extended producer responsibility, deposit-refund schemes, and recycling mandates. Each approach is discussed below.

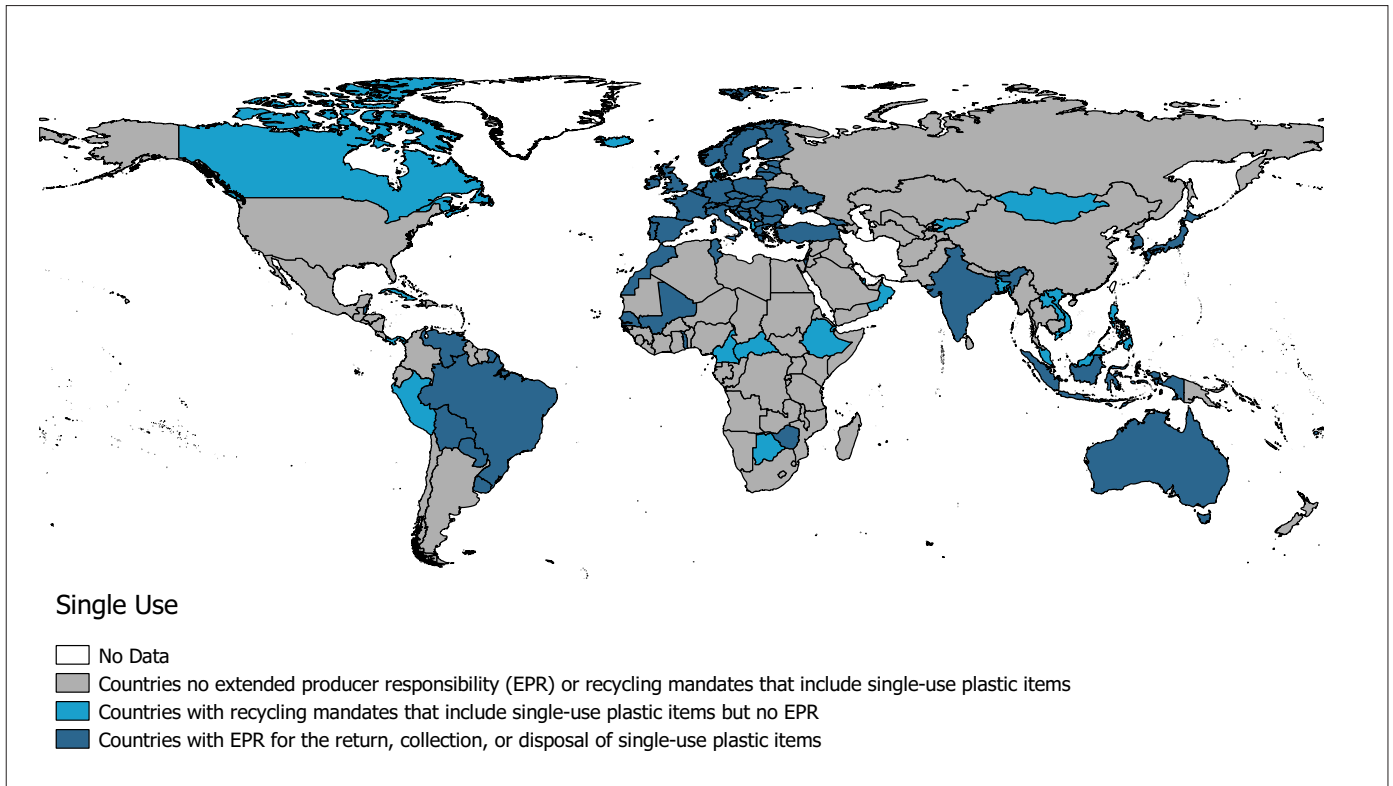
Extended Producer Responsibility

Sixty-three (63) countries have extended producer responsibility (EPR) mandates for single-use plastics. These 63 countries with EPR represent about 33 percent of the 192 countries reviewed for this report. Europe has the strongest uptake of EPR as a regulatory

Key Single Use Plastics Findings
#5: Sixty-three (63) countries have enacted Extended Producer Responsibility (EPR) measures, such as product-take back schemes, deposit-refund, and waste collection and takeback guarantees.

measure with 38 countries, followed by nine (9) countries in the Asia Pacific region, nine (9) countries in Latin America and the Caribbean, and seven (7) countries Africa. No federal or nationally-mandated EPR were found in West Asia and North America, although some countries in these regions, as well as the other regions, may have sub-national regulations or industry-based voluntary initiatives instead. Other countries, such as South Africa, New Zealand, Malaysia, and Vanuatu, allow for the imposition of EPR in the legislation but no specific rules have been imposed. Map #8 shows the geographic profile of EPR regulations.

MAP 8 | Single-Use Plastics: Global Overview Of Countries With Extended Producer Responsibility On Disposable Or Single-Use Plastics.



The EPR mandates mainly target post-use of plastic packaging and other single-use items, subject to some variation in specific obligations from country to country. Many countries extend the EPR obligations to both producers and retailers or distributors, but there are a few countries that impose

the responsibility primarily to the distributor or retailer, for example, Barbados. The establishment of EPR mandates by many European countries is in response to the EU Directives on Packaging and Packaging Waste (Directive 94/62/EC and Directive (EU) 2015/720), which require member states to set

up systems for return, collection, recovery, including recycling, of packaging and packaging waste.²⁹ Table 26 shows the regional disaggregation of countries with EPR regulations and Table 27 gives examples of the types of regulations.

Table 26: Regional distribution of countries with Extended Producer Responsibility

Africa	Asia & the Pacific	Europe	LAC
Mali	Fiji	Austria	Belize
Mauritius	India	Belgium	Bolivia (Plurinational State of)
Morocco	Indonesia	Bulgaria	Brazil
Senegal	Republic of Korea	Estonia	Paraguay
Zimbabwe	Australia	Finland	St Kitts & Nevis
Togo	Bhutan	Georgia	St Vincent & the Grenadines
Tunisia	Japan	Germany	Uruguay
	Palau	Hungary	Venezuela, Bolivarian Republic of
	Marshall Islands	Israel	Barbados
		Italy	
		Lithuania	
		Luxembourg	
		The former Yugoslav Republic of Macedonia	
		Malta	
		Republic of Moldova	
		Montenegro	
		Netherlands	
		Romania	
		Norway	
		Serbia	
		Slovakia	
		Slovenia	
		Spain	
		Switzerland	
		Ukraine	
		Croatia	
		Bosnia & Herzegovina	
		Cyprus	
		Sweden	
		Portugal	
		France	
		Poland	
		Ireland	
		United Kingdom	
		Latvia	
		Czech Republic	
		Greece	
		Turkey	

Table 27: Examples of EPR rules from different countries

Country	EPR Rules
Austria	Participate in an approved collection and recycling system for household packaging; take back the commercial packaging put into circulation by them free of charge, if these are not demonstrably delivered directly to large accumulation points; retailers to participate in collection and recycling systems unless shown that an upstream obligor (manufacturer, importer, or distributor) is participating
Belgium	Responsibility to take back packaging 300kg or greater (annually) placed on the market, which may be contracted out to a public or private contractor
Belize	Obligation to institute deposit-refund or take-back scheme for empty beverage containers
Bolivia (Plurinational State of)	Establish environmental management plans and mechanisms for prevention management of the waste generated by activities; assist in the implementation of public programs for the use of waste, including the conditioning, separation, storage, delivery and collection of waste
Brazil	Responsibility to collect end-of-life packaging; implement sectoral agreement to reduce 22% of packaging waste being sent to landfills by 2017
Bulgaria	Responsibility for separate collection and treatment of waste, either individually or as part of a collective scheme; duty to fulfill targets for separate collection, re-use, recycling and/or recovery of waste as prescribed by ordinance
Estonia	Obligation to accept the return of sales packaging and sales packaging waste of the sold goods free of charge, to institute a deposit-refund system for beverage containers, and to pay for the collection and transport of packaging disposed as municipal waste
Fiji	Requirement of permit to manufacture or import plastic bottles, conditioned upon adoption of collection and recycling system, including the establishment of bottle collection centers, individually or jointly with others, deposit-refund schemes, and waste disposal systems, with adequate training of staff
Finland	Organize waste management of products released in the market and cover associated costs, including creation of packaging waste reception points
Georgia	Ensure the separate collection, transport, recovery (including recycling) and environmentally sound disposal of waste generated by products; design the product in a way that ensures reduction of negative environmental impacts and waste generation
Germany	Duty to ensure the comprehensive take-back of transport, grouped, and sales packaging, including mandatory participation in collective waste disposal systems (dual disposal system) for sales packaging waste collection, recovery and recycling; mandatory deposit-refund scheme for disposable beverage bottles, including PET bottles
Hungary	Obligation to accept, collect and recycle separated packaging waste; retailer can enter into agreement with producer to accept packaging waste from end-users and transfer to producers; retailers with shops with an area of 500 sq.m. or more must accept packaging waste from end users.
Indonesia	Duty to recycle waste by instituting a recycling program as part of its business and activities, using production raw materials that can be recycled, and pull back waste from products and product packaging for recycling
Mauritius	Permit required for bottling activities, conditioned upon putting in place a collection system, which can be through a third party, including specific measures for recycling a certain quantity of PET bottles; duty to submit an annual return describing the number of PET bottles produced, collected, recycled and exported
Netherlands	Duty to ensure separate intake or collection and subsequent separation of packaging placed on the market, and cover the costs thereof
Norway	Duty to be a member of a producer responsibility organization by producers placing on the market at least 1000 kg per year of specific packaging, and as member to contribute funds for the collection, sorting, recycling and other treatment of plastic packaging waste.
Senegal	Plastics operators are required to offer households and other users a system for the collection or recovery of plastic waste for recovery, recycling or disposal; duty to reduce the amount of plastic waste that result from activities or production processes and developing waste recovery activities
Spain	Obligation to institute deposit-refund or take back scheme, but only for those containers the producer or trader placed or would have placed on the market
Switzerland	Obligation to institute deposit-refund or take back scheme for non-refillable PVC containers and pass them on to recycling at own cost, which can be done through private contractor
Uruguay	Producers obligated to introduce an environmental variable in the design of the packaging of its products and create packaging waste management plans that include the detail, the form and other conditions under which make the return, the collection, the transport, the transitory deposit and the valuation of the residues of packaging and the final destination of non-recoverable materials, the processes of social inclusion and the mechanisms of registration and control necessary to verify the results of the plan
Barbados	Distributors and dealers of beverages in containers may not operate without a system of recycling of beverage containers in place

Deposit-refund Schemes

Twenty-three (23) countries, representing about 12 percent of the 192 countries reviewed have requirements for taking back of single-use plastic products through deposit-refund schemes. Europe

leads the way with 15 countries, whereas the Asia-Pacific region has five (5) countries, and in Latin America and the Caribbean has three (3) countries. The other regions are not represented. Deposit-refund scheme is a type of EPR, but not all countries with

EPR mandates require it. The most common single-use plastic subject of deposit-refund schemes are beverage bottles. Table 28 shows regional disaggregation with brief description of deposit-refund schemes.

Table 28: Countries with Mandated Deposit-Refund Schemes

Region	Country	Deposit-Refund Scheme
Asia & Pacific	Barbados	Dealers and sellers of beverages in bottles, including plastic bottles, shall take back empty beverage containers of the design, shape, size, color, composition and brand sold by the dealer, and pay to the redeemer the refund value. (Returnable Containers Act)
	Fiji	Plastic bottle permits holders obligated, in conjunction with the government authority, to establish a system of cash payments for the return of bottles for recycling, including collection centers. (Environment Management (Waste Disposal and Recycling) Regulations)
	Kiribati	Minister may provide for classes of materials for recovery in respect of which the deposits are to be levied. Deposit scheme promulgated for bottles. (Special Fund (Waste Material Recovery) Act & Regulations and Orders: Deposits and Fees)
	Marshall Islands	Redemption centers at which empty beverage containers may be returned and payment received will be established (applies to Styrofoam cups, plates and plastic products). (Styrofoam cups and plates and Plastic Products Prohibition and Container Deposit Amendment Act)
	Palau	Recycling Program established whereby a \$0.10 deposit fee is charged on each imported plastic, glass, or metal container, with \$0.05 redeemable by consumers upon return of empty container to designated depots for recycling, and the remaining \$0.05 will be used to cover the costs of the recycling program. (The Palau Recycling Act)
	Europe	Austria
Croatia		Producers who place on the market packed drinks in must pay a Refund Fee to the government. The producer shall refund the amount of the refund fee from the buyer, and the final customer or consumer shall be entitled to a refund of the amount from the seller or the person managing the recycling yard by returning the waste beverage packaging. (Regulation on Packaging and Packaging Waste)
Denmark		Producers, bottlers and importers of beverage containers, including plastic bottles, must sign up with Dansk Retursystem A/S (DR A/S, non-profit that administers the deposit-refund system). Producers and importers shall charge retailers deposit fees, which they remit to DR A/S. Used beverage containers returned to the retailer, either through reverse vending machines or manually, are transported to counting centers of DR A/S and the retailer receives a refund. (Bottle Bill)
Estonia		Deposit scheme for reusable and non-reusable beverage packaging (low-ethanol content alcoholic beverages, cider, perry, & soft drinks) and plastic packaging, amount set by regulation by not less than 0.03 euros. Deposit to be returned to the customer or end-user upon delivery of empty or used packaging to the place of sale of goods or other place in close proximity as indicated. (Waste Act)
Finland		Beverage producers and importers that belong to the deposit-refund program are exempted from the excise tax on beverage containers; provided that they also meet mandatory recycling targets (Excise Tax on one-way beer and soft-drinks containers and Waste Management Act)

	Germany	Distributors who place beverages in disposable beverage containers with a volume of 0.1 liter to 3 liters on the market are required to collect from customers a deposit of at least 0.25 euros, including VAT per package, and must participate in a nationwide deposit scheme allowing system participants to claims for refund upon return of the packaging. When selling from vending machines, the distributor has to ensure the return and reimbursement through appropriate return options within reasonable distance to the vending machines. (Packaging Ordinance/ VerpackV)
	Iceland	National deposit-refund system for beverage containers is administered by Endurvinnslan hf. (Recycling Ltd), a company established by law and operates in accordance with regulations. (Law no. 52/1989 and Regulation 368/2000)
	Israel	Producer and importers must collect, with reasonable frequency, empty labeled beverage containers purchased from them by a business and to pay the deposit fees for them; mandated annual targets for collection of empty beverage containers, at a rate of at least 55 percent of the total large beverage containers that were marketed that year. (Deposit on Beverage Containers Law)
	Lithuania	Producers and importers of products in packaging covered by a deposit system must collect a deposit which is refunded to the seller when the packaging is returned. Sellers, upon sale of products in packaging covered by a deposit system must collect a deposit which is refunded to consumers and users of products when the packaging is returned. Reused packaging may be reused by the seller and the deposit not refunded in cases of damage or contamination to an extent that it can no longer be put to another use. (The Law on Packaging and Packaging Waste)
	Montenegro	Beverage distributors must a deposit beverage container fee on each beverage container manufactured or imported into the country. The fee shall be \$0.10 per beverage container. The Minister shall establish redemption centers where consumers may return empty beverage containers to redeem \$0.05 per container. The Minister shall then sell beverage containers for recycling at market prices. (Waste Management Law)
	Netherlands	Deposit system for PET bottles larger than 0.5L, beer bottles and beer crates are subject to a deposit to be refunded by producers, retailers when empty bottles are returned correctly. (Packaging Management Decree)
	Norway	Points of sale of beverages in packaging that is incorporated in a deposit scheme (plastic bottles) have a duty to accept reasonable quantities of empty packaging that they themselves retail. Upon delivery of the packaging to the points of sale, the consumer can claim a cash refund of the deposit. (Regulations relating to the Recycling of Waste)
	Sweden	Producers and importers of beverages must be registered with an approved return system in order to sell to the Swedish market. (Regulation SFS 2005: 220) on return systems for plastic bottles and metal cans)
	Switzerland	Dealers, manufacturers, and importers who supply beverages in non-refillable PVC containers to consumers must charge a deposit, take back empty containers, refund the deposit to consumers, and at their own expense pass the containers on for recycling. (Ordinance on Beverage Containers)
	Romania	Economic operators marketing packaged products in reusable primary packaging shall be obliged to receive the reusable packaging at the exchange or to repay, at the consumer's request, the value of the deposit (Law on the Management of Packaging and Packaging-Generated Waste)
Latin America and the Caribbean	Belize	Distributors and dealers must collect a deposit on beverage containers at the time of sale or distribution, and upon proof of purchase accept at the place of business from a redeemer, any empty beverage containers and refund its value. (Returnable Containers Act)
	Uruguay	Merchants, retail shops, and other intermediaries in the chain of distribution and marketing of packaged products are obliged to receive and accept the return of the packaging of products they have placed on the market. (Law for Packaging Recycling)
	Venezuela, Bolivarian Republic of	Manufacturers, distributors and importers of goods or consumer products that generate solid waste must have return programs for the recovery of their waste, including the mechanisms of return or deposit refund. (Law of Integral Management of Garbage)

Key Single Use Plastics Findings

#6: The most common legal measures for post-consumer use disposal for single use plastics are recycling requirements and solid waste management laws which may implicitly include single-use plastics under household or commercial waste or explicitly set targets for plastics.

Recycling Mandates

Fifty-one (51) countries were found to have explicit regulatory mandates regarding recycling beyond general policy objectives. The regulations vary, with most countries' regulations limited to general requirements and/or targets for plastics recycling, while other countries require recycling as a component of EPR. Of the 51 countries with some type of recycling mandate, 26 countries include specific recycling targets. Nine (9) countries provided fiscal incentives to promote recycling activities. Palau enacted a national recycling program in which the government administers a beverage container deposit-refund scheme. Panama requires public institutions to sort their waste and undertake recycling schemes for plastic bottles and other types of containers. In terms of regional distribution, 29 countries in Europe

have instituted national recycling mandates and objectives of some type, more than any other region. This is followed by Africa with eight (8) countries, the Asia Pacific region with seven (7) countries and Latin America and the Caribbean also with seven (7) countries. As with EPR, the adoption of recycling mandates by most European countries is in compliance with the EU Directives on Packaging and Packaging Waste, which stipulates recycling as an integral component of packaging and packaging waste recovery.³⁰ Figure 13 below represents the number of countries and type of recycling regulation. Table 29 shows the regional disaggregation and type of regulation, while Table 30 provides examples of regulations. Table 31 describes the fiscal incentives of the countries that have instituted them.

Figure 1 | Number of Countries per type of recycling regulation

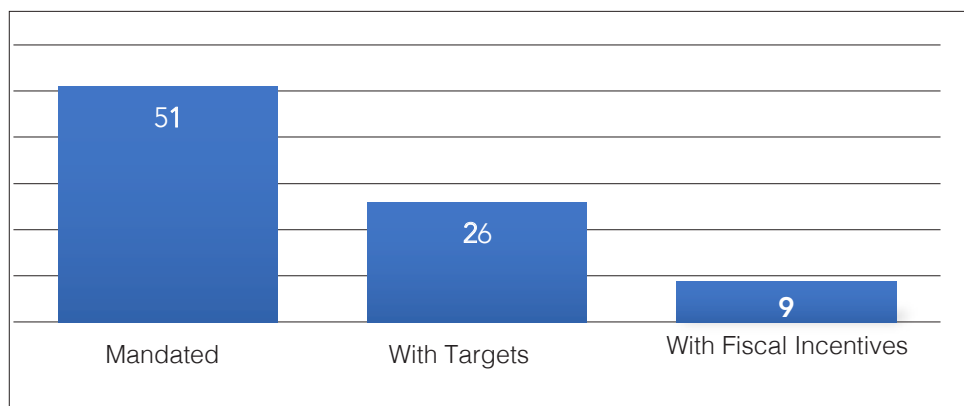


Table 29: Regional Distribution of Countries with Recycling Mandates

Region	Country	Required	Targets	Fiscal Incentives
Africa	Cameroon	✓		
	CAR	✓		
	Ethiopia	✓		
	Mali	✓		
	Mauritius	✓		
	Morocco	✓	✓	
	Tunisia	✓		
	Zimbabwe	✓	✓	
Asia & Pacific	Fiji	✓	✓	
	India	✓	✓	
	Indonesia	✓		
	Republic of Korea	✓	✓	
	Malaysia	✓		✓
	Palau	✓		
	Philippines	✓	✓	
LAC	Bolivia (Plurinational State of)	✓		
	Brazil	✓		
	Barbados	✓		
	Cuba	✓		
	Panama	✓		
	Peru	✓		
	Uruguay	✓	✓	
Europe	Albania	✓	✓	✓
	Austria	✓		
	Bosnia & Herzegovina	✓	✓	
	Bulgaria	✓	✓	
	Croatia	✓	✓	
	Cyprus	✓	✓	
	Denmark	✓		
	Estonia	✓	✓	✓
	Finland	✓		✓
	Georgia	✓		
	Germany	✓	✓	
	Greece	✓	✓	✓
	Iceland	✓	✓	✓
	Israel	✓	✓	
	Ireland	✓	✓	
	Italy	✓	✓	
	Liechtenstein	✓		
	Lithuania	✓	✓	✓
	Luxembourg	✓		
The former Yugoslav Republic of Macedonia	✓	✓		
Malta	✓	✓		

	Montenegro			✓
	Netherlands	✓	✓	
	Norway	✓	✓	✓
	Republic of Moldova	✓	✓	
	Serbia	✓		
	Slovakia	✓	✓	
	Spain	✓		
	Switzerland	✓		

Table 30: Examples of Country Narrative of Recycling Mandates

Region	Country	Recycling Mandate
Africa	Mali	"Any producer and distributor who markets or uses in its activities plastics or other non-biodegradable packaging, and any responsible person for first time on the market, if the producer and the distributor are unknown, is obliged to proceed the recovery of its plastics and packaging used for recycling."
	Zimbabwe	"Any person who- (a) uses polystyrene in packaging to protect goods from damage during transportation or storage; (b) uses polystyrene in construction, shall take responsibility for recycling any polystyrene packaging material they manufacture and sell."
Asia & Pacific	Fiji	"A facility that imports or manufactures plastic bottles must send returns to the Department of Environment of all import, manufacture, distribution, return and disposal of bottles. Returns must be in writing and sent every 6 months from the issue of the permit. xxx Failure to send a return by the due date is an offence under section 44 of the Act and can lead to suspension of the permit."
	India	"Responsibility of producers, Importers and Brand Owners. - xxx (3) manufacture and use of non-recyclable multilayered plastic if any should be phased out in two years' time."
Europe	Cyprus	"Until 2020 the following objectives should be met: (a) regarding preparation for the reuse and recycling of waste, household waste consisting of paper, metal, plastic and glass waste and potentially of waste of other [i.e. non-household] origin, the increase of these activities [i.e. preparation for reuse/recycling] with a view to encompassing at a minimum 50% of their total weight."
	Israel	"A manufacturer and importer shall collect empty beverage containers marked at an average annual rate of the total beverage containers marketed in each two-year period, not less than 77 percent, provided that the percentage of the beverage containers to be collected from the total beverage containers marketed each year will not fall below 73 percent; xxx Each year, a manufacturer and importer will collect large empty beverage containers at a rate of at least 55 percent of the total large beverage containers that were marketed that year."
	Lithuania	"Producers and importers must take the necessary measures to ensure that empty transport, grouped and sales packaging as well as its waste are managed xxx and that targets for collection, recycling and reuse of packaging and packaging waste set by the Government or an institution authorized by it are attained. xxx Producers and importers who do not meet the objectives provided xxx relating to collection, recycling and reuse of packaging and packaging waste, must, pursuant to the law, pay a tax for pollution of the environment with product waste."
	Malta	"Producers or third parties acting on their behalf shall, with respect to packaging waste arising from their activities, using existing systems or set up systems, individually or collectively, or both, in accordance with any existing laws and regulations, to provide for: (a) the return and, or collection of used packaging and, or packaging waste from the consumer, other final user, or from the waste stream in order to channel it to the most appropriate waste management alternatives, ensuring that these systems are open to all economic operators (b) the reuse or recovery including recycling of the packaging and, or packaging waste collected (c) the use of materials obtained from recycled packaging waste for the manufacturing of packaging and other products"

	Netherlands	"The producer or importer shall take care of the separate intake or the collection and subsequent separation of packaging he places on the market in the Netherlands and of the packaging he has imported, xxx. The costs of separate collection or the collection and subsequent separation of packaging are at the expense of the producer or importer. Xxx The producer or importer shall ensure that at least 75% by weight of the total of the packaging placed on the market by him in the Netherlands during the calendar year and of the packaging he has imported in that calendar year is at least 75% applied and 70% by weight is recycled."
	Norway	"Producer responsibility organizations shall arrange for the following: a) the collection of packaging waste from the business sector and municipalities; b) the reception of packaging waste from companies that collect it, provided that the packaging waste has been sorted, stored and transported onwards in an appropriate way, xxx; c) the collection and reception of a reasonable quantity of the type of packaging their member companies have placed on the Norwegian market when it ends up as household and industrial waste; d) recycling of at least 30% of plastic packaging with the exception of expanded polystyrene, 50% of expanded polystyrene, xxx that their members have placed on the Norwegian market. xxx"
	Serbia	"The manufacturer, importer, packer / filler and supplier shall be obliged for the packaging put into circulation: 1) to ensure that the utility company regularly takes over the municipal packaging waste; 2) to regularly take over and collect packaging waste which is not municipal waste from end-users; 3) to provide reuse, recycling or disposal in accordance with the law."
LAC	Bolivia (Plurinational State of)	"Any recyclable container or packaging that is produced must be identified with the corresponding recycling symbol and coding, under technical standards issued by the Ministry head of the sector." Xxx Recovery and commercialization of waste - The waste that is recovered for its use must be incorporated into the recycling chain."
	Panama	Law No. 6 of February 6th, 2018 "Which establishes integrated waste management in public institutions" orders public institutions to sort their waste and undertake recycling schemes for paper, plastic bottles, Tetrapak containers and aluminum cans.

Table 31: Countries with Fiscal Incentives for Single-Use Plastics Recycling

Region	Country	Fiscal Incentive
Asia & Pacific	Malaysia	Manufacture of biodegradable disposable packaging and household wares and waste recycling activities are listed as promoted products and activities under the Promotion of Investments Act which are eligible for pioneer status and investment tax allowance.
Europe	Albania	Under the amendments to the Law on National Taxes, effective January 1, 2017, the tax on plastic packaging for domestically produced and domestically recycled packages is reduced from 50 ALL/kg to 1 ALL/kg.
	Estonia	Exemption from excise duty imposed under the Packaging Excise Duty Act granted with respect to packaging for which a deposit has been established under the Packaging Act, and from which xxx at least 85 per cent of each class of packaging material is recovered as of 1 January 2012.
	Finland	Exemption from excise duty under the Act on Excise Duty on Certain Beverage Containers for containers which are included in deposit-based, functional return system and which can be refilled or used for the recovery of raw material.
	Greece	Under the Packaging and Alternative Management of Packaging Waste and Other Products, manufacturers and importers who carry out alternative management of packaging and other products, in compliance with the targets, the demands and the general principles of the present law, will be offered incentives.
	Iceland	The Iceland Recycling Fund, a state-owned agency under the Ministry of Environment, applies economic incentives to establish practical arrangements for processing waste.
	Lithuania	Manufacturers and importers are exempted from environmental pollution tax under the Law on Pollution Tax for products and (or) packaging waste for the quantity of products and/or packaging which meets the proportion of the use and/or recycling of waste products and/or packaging identified by the Government. To benefit from the tax relief, documentation must be provided in accordance with established procedures, confirming the amount of recovered or used for energy production.

	Montenegro	Special (lower) fee paid by the manufacturer or importer who places biodegradable products or packed goods in circulation. Under the Waste Management Law, the load unit for xxx plastics made of other materials that are not biodegradable is 10 (number JO / kg), and for plastics that are biodegradable the load unit is 1.
	Norway	Under tax regulations, an environmental tax is imposed on plastic PET bottles, set at NOK 3.44 for recyclable bottles. The environmental tax lessens in line with the return rate, starting with a 25 percent return rate. At a 95 percent return rate, the environmental tax cease completely."

Table 32: Types of recycling mandates, both specific to single-use plastics or general mandates that implicitly include single-use plastics as solid waste.

Country	Target	Law
Bosnia and Herzegovina	No new targets for the Federation of Bosnia and Herzegovina. For Republika Srpska, there is a 20% target for 2018 onwards for packaging waste	Law on Waste Management in Republika Srpska (Official gazette of RS 111/13, 106/15, 16/18), Article 63g Rulebook for package and package waste management;
Bulgaria	50% of all household waste by weight is reused or recycled by January 1, 2020	Waste Management Act, 2012
Cyprus	50% (all recyclables) to be recycled or reused by 2020	Law 185(I)/2011 On Waste, Article 13(4)(a)
Estonia	50% of all recyclable waste from non-agricultural and non-forestry sources recycled or reused by January 1, 2020	Waste Act (2004) subsection 120
Germany	65% of total weight of all recyclables is diverted to recycling by 2020	2009 Packaging Ordinance
Greece	78% of plastic packaging waste by 2020 should be recycled and 65% of total weight of waste recycled by 2020	JMD 180036/252/207, Article 7 paragraphs 2, 2.1, Cabinet Act No. 49 of 15 December 2015 On modifying and adopting the National Plan for Waste Management and the National Plan for the Prevention of Waste Creation, Strategy No. 3., page 9209, table 14
India	9. Responsibility of producers, Importers and Brand Owners.- ... (3) manufacture and use of non- recyclable multilayered plastic if any should be phased out in Two years' time.	Plastic Waste Management Rules, 2016
Ireland	50% by weight of household paper, metal, plastic, and glass by 2020 to be recycled.	EU Waste Framework Directive; Waste Management Act 1996, European Communities Waste Directive Regulations 2011
Israel	Manufacturers must collect at least 73% of beverage containers up to 1.5 L and 55% of containers above 1.5L and recycle at least 90% of them	Deposit on beverage containers law, 1999, Article 7 + 7A + 7E(A)
Italy	50% of household waste (including, but not exclusive to plastic) reused or recycled by 2020	Law n. 205/2017, Art. 181, Section 1.
Lithuania	Min of 55% and max of 80% of plastic packaging waste to be recycled by 2020	Law on Management of Packaging and Packaging Waste 2001 and 2014-2020 National Waste Management Plan

The former Yugoslav Republic of Macedonia	A minimum target of 55% to a maximum of 80% of plastic packaging must be recycled by 2020	Law for packaging and packaging waste management (Official Gazette No. 161/2009, 17/2011, 47/2011)
Malta	55-80% by weight of all waste recycled by 2020 and at least 22.5% of plastics	Waste Management (Packaging and Packaging Waste) Regulations 2007
Morocco	20% recycling rate (all recyclable materials) by 2020	Law No. 1-06-153 of 22 November 2006 (30 chaoual 1427) promulgating Law No. 28-00 on the management of waste and its disposal.
Netherlands	50% of plastic packaging to be recycled by 2020 and increasing 1% a year following	Decision on Packaging Management, 2014
Peru	Public sector entities must use plastics with a minimum of 80% recycled content	Supreme Decree 011-2010-MINAM; Ministerial Resolution 021-2011-MINAM
Republic of Korea	Mandatory Recycling Ratio applied to manufacturers, ranging from 0.442 (single-material polystyrene paper) to 0.830 (PET complex materials). Recycling due is 30/100 of the sum of expenses to be incurred in recycling non-recycled wastes out of the mandatory recycling quantity.	Act on the Promotion of Saving and Recycling of Resources;
Republic of Moldova	30% (total target inclusive of glass, paper, plastics, metals) by 2020	<i>Law on Waste #209 from 29.06.2016. Art.14 para. (1) b)</i>
Slovakia	At least 45% by weight of plastic packaging must be recycled	The Waste Act No. 79/2015

Box 3: Examples of proposed legislation to restrict single-use plastics

Some countries with recent announcements of proposed legislation on single-use plastics

A number of countries have enacted policies and proposed new legislation to regulate single-use plastics. These include--

Europe

- Portugal – several bills calling for the ban on disposable plastic tableware (plates, cups, cutlery and straws) in restaurants and shops are pending in Parliament. The bills were proposed respectively by the Green Party (PEV), the People, Animals and Nature Party (PAN), the Left Bloc (BE), and the Communist Party (PCP). Opposition party PSD is calling on the government to conduct a study on alternatives to disposable plastic tableware, carry out awareness-raising campaigns to reduce their use, and outline a strategy for gradual reduction³¹.
- United Kingdom – the government announced a proposed new ban on plastic straws, drink stirrers, and plastic-stemmed cotton swabs. The ban will be enacted after consultations to be conducted by the environment secretary. The government plans to work with industry to develop alternatives and ensure sufficient time to adapt.³²

Africa

- Kenya – after enacting one of the most stringent plastic bag bans in the world (penalties for violation include fines of up to \$38,000 (€32,000) and a jail term of up to four years), the government has promised to ban disposable plastics next³³.

Asia & the Pacific

- India – the government has pledged to ban all single-use plastics by 2022. The announcement was made during the World Environment Day summit hosted by the Indian prime minister on June 5th, 2018. The announcement builds on state-specific bans on the manufacture, supply, storage and use of plastics that are already in place in at least 25 of the country's 29 states.³⁴
- Philippines – after being named among the top five countries that produce half of the world's plastic waste, several high-ranking legislators announced plans to file bills banning or limiting the use of single-use plastics and microplastics. The proposed bills will nationalize bans enacted by a growing number of cities and municipalities.³⁵

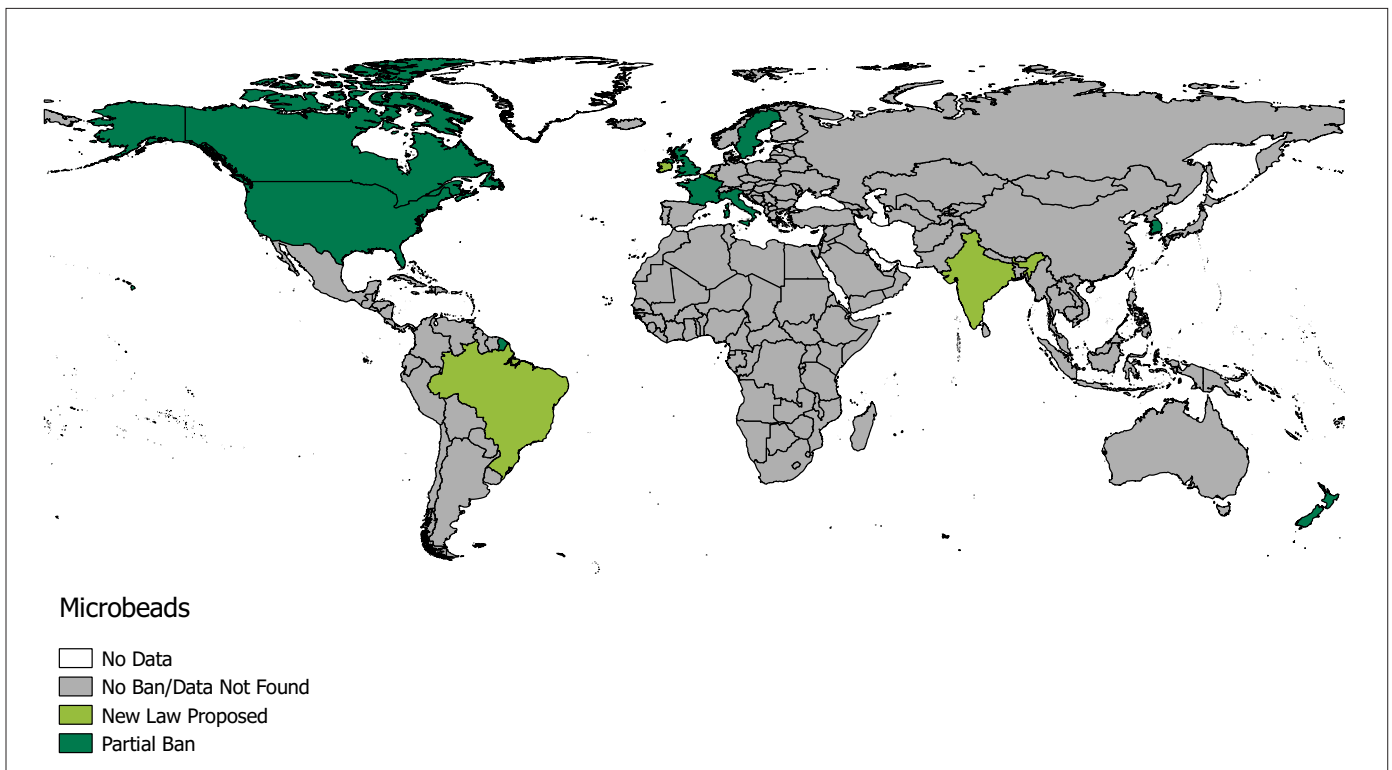
Latin America and the Caribbean

- Costa Rica – on the occasion of the World Environment Day on June 5, 2017, the president announced a national strategy to phase-out all forms of single-use plastics by 2021 and replace them with alternatives that biodegrade within six months. The ban will cover not only plastic bags and bottles, but also disposable cutlery, straws, Styrofoam and stirrers.³⁶
- Dominica – the prime minister recently (July 2018) announced plans to prepare legislation banning single-use plastics such as straws, plates, cutlery, and Styrofoam cups and food containers by January 2019. This follows an earlier decision to restrict the importation of non-biodegradable containers and plastic implements used in food service.³⁷
- Grenada - The government has pledged to table legislation banning the importation of Styrofoam and plastic as part of its waste management strategy. The country's health minister announced that a Styrofoam Bill which will ban the importation of Styrofoam is only the beginning, after which the government propose bills to tackle other plastics and the recycling of products.³⁸
- Saint Lucia – according to the minister of sustainable development, a Returnable Containers Bill drafted a few years ago might be finalized soon. Meanwhile, the government is considering other measures to address the problem of improper disposal of plastic litter. ³⁹
- Saint Kitts and Nevis – early this year, the country's premier and minister of finance announced that the government will seek to implement a ban on single-use plastics and Styrofoam containers, and institute an island-wide recycling program⁴⁰.

AN OVERVIEW OF REGULATORY APPROACHES CONTROLLING MICROBEADS

This section provides a global overview of the progress of countries in passing laws and regulations that limit the manufacture, import, sale, use and disposal of microbead products which end up as marine litter. A review of voluntary measures used in countries to control the manufacture and sale of microbead products is also presented. Map #9 shows the number countries with legally binding bans of microbeads through national laws as well as countries with proposed bans.

Map 9 | Number of Countries with bans on Microbeads.



This section provides a global overview of countries that have established national limits or bans of microbeads. Overall eight out of 192 countries assessed enacted national level laws or regulations that ban the use, sale, and/or manufacture of microbeads in personal care products. These

countries are Canada, France, Italy, Republic of Korea, New Zealand, Sweden, the United Kingdom of Great Britain and Northern Ireland (UK), and the United States of America (US). This number suggests that most countries have not yet taken action to eliminate microbeads from personal care

products through national level laws or regulations. Figure 10 below provides an overview of the number of countries with national laws controlling microbeads while Figure 11 provides the overview by region. Table 33 provides the name of the specific microbead law or regulations in each country.

Key Microbead Finding #1: As of July 2018, eight out of 192 countries worldwide (4%) have established legally binding bans of microbeads through national laws or regulations.

Figure 1 | Countries that do and do not have national level laws or regulations controlling the use of microbeads

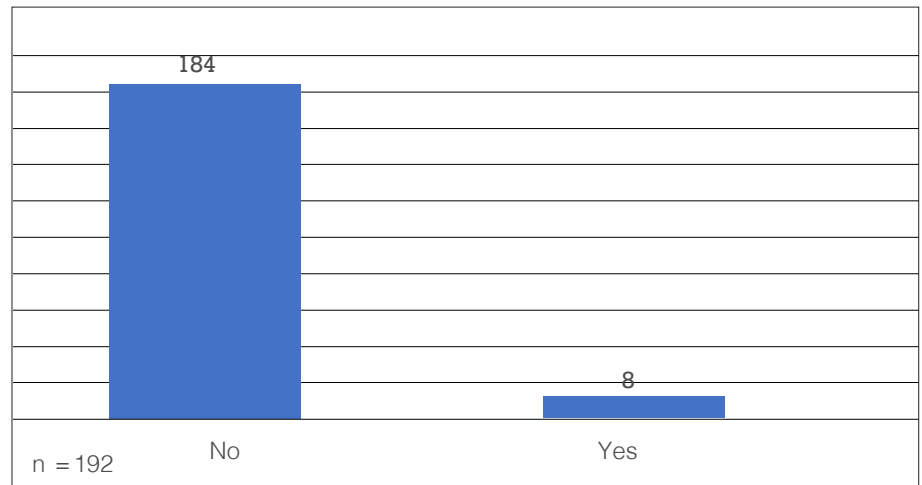


Figure 11 | Regional Distribution of Countries with and without microbead laws

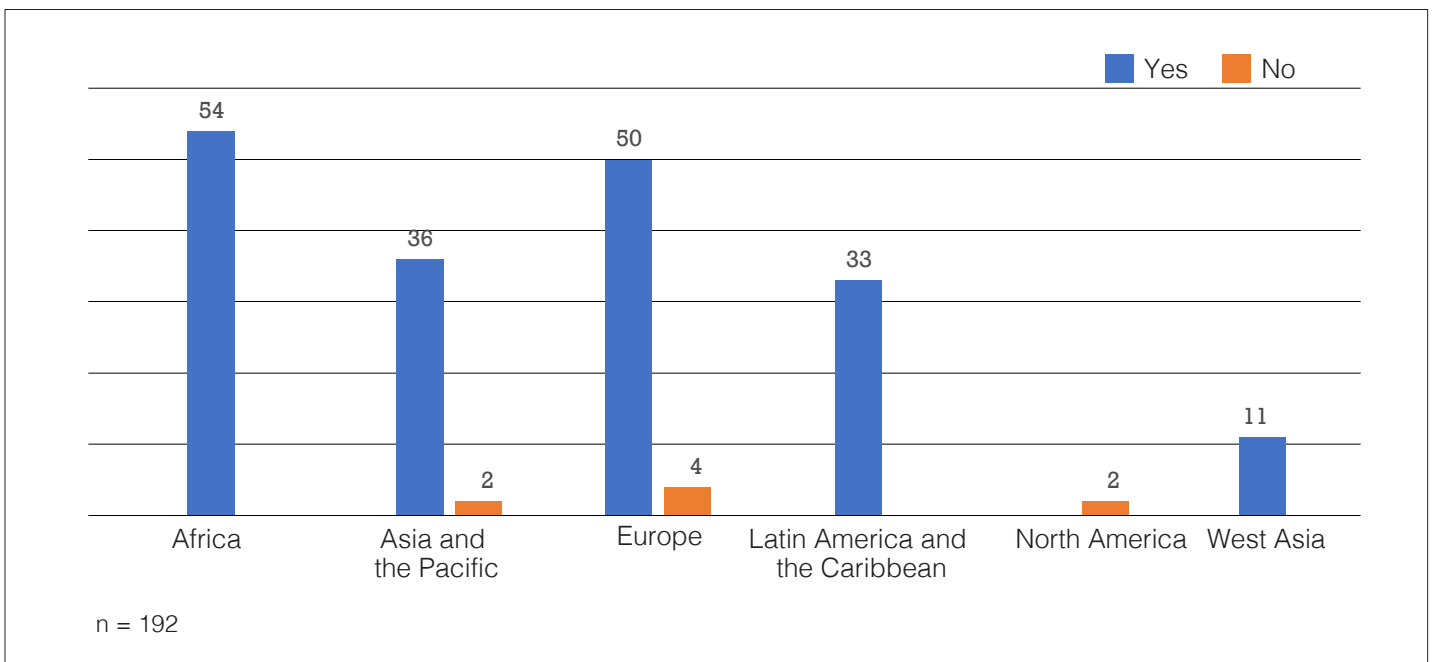


Table 33: Microbead Laws and Regulations

Country	Law or Regulations Name
Canada	Microbeads in Toiletries Regulations (SOR/2017-111), June 2 2017
France	Reclaiming Biodiversity, Nature and Landscapes Act No 2016-1087 of 8, Article 124, August 2016
Italy	General Budget Law 2018: Law no. 205 of 27, Art.1, Sections 543 to 548, December 2017
Republic of Korea	Regulations on safety standards for cosmetics [Annex 1] {No. 2017-114, Notice, Article 3, Dec. 29, 2017,
New Zealand	Waste Minimisation (Microbeads) Regulations 2017, under section 23(1)(b) of the Waste Minimisation Act 2008.
Sweden	Regulation amending Regulation (1998: 944) prohibiting etc. in certain cases in connection with handling, import and export of chemical products,
UK	The Environmental Protection (Microbeads) (England) Regulations 2017
England	The Environmental Protection (Microbeads) (Scotland) Regulations 2018
Scotland	The Environmental Protection (Microbeads) (Wales) Regulations 2018
Wales	The Environmental Protection (Microbeads) (Northern Ireland) Regulations 2018.
N. Ireland	
US	Microbead-Free Waters Act of 2015

While the focus of this report was on national laws and regulations, in some countries subnational governmental bodies have passed laws or ordinances banning the use of microbeads in personal care products. Box 4 below provides a description of subnational actions taken in the United States of America and Canada.

Box 4: Examples of subnational laws regulating the use and sale of microbead containing products

Subnational laws banning the use and sale of products containing microbeads

United States of America

Illinois became the first state to enact legislation prohibiting the sale and manufacture of personal care products containing non-biodegradable plastic microbeads in 2015. Public Act 098-0638 banned the manufacture for sale of personal care products except over the counter drugs starting December 31, 2017. The sale of products sold as over the counter drugs that contain synthetic plastic microbeads was prohibited beginning December 31, 2018. According to the National Caucus of Environmental Legislators, since then at least 15 states introduced legislation to ban microbeads including Arizona, Colorado, Connecticut, Hawaii, Maryland, Main, Minnesota, Mississippi, New Jersey, New York, Texas, Virginia, Washington, and Wisconsin. Under the national Microbead-Free Waters Act of 2015, states are not allowed to enact or enforce laws that restrict the manufacture or sale of personal care products containing plastic microbeads unless the state or local restrictions are the same as the federal law.

Canada

Ontario parliament passed a ban on the manufacture of microbeads in 2015 - Bill 75 Microbead Elimination and Monitoring Act, 2015. Toronto City Council and Montreal as well as the Quebec Metropolitan region have also passed motions encouraging bans on the use of plastic microbeads in personal care products at the provincial level.

Characteristics of the National Laws and Regulations

The laws and regulations used to control microbeads share a number of similarities but also critical differences. This section describes the approaches used in

different laws and regulations used to limit the manufacture, import, sale, and use of plastic microbead products based on legal analysis. It specifically looks at

- the definition and size of microbead
- if the law or regulation controls

the sale and/or manufacture of products containing microbeads

- the scope of products covered under each law or regulations
- exemptions and,
- the phase-in dates for enactment.

Key Microbead Finding #2: Seven out of eight of the countries with laws or regulations controlling the use and/or manufacture of microbeads include only a subset of personal care products documented to contain microbeads.

Key Microbead Finding #3: The laws and regulations used to control microbeads share a number of similarities in definition of microbead, product types covered, and the size of microbead controlled; However, there are also important differences.

Definition of Microbead

All of the countries with national laws or regulations banning microbeads include a definition of microbeads. The definition bases restriction on the size and specificity of plastic particles. In some cases, the definition also includes the type of products or water solubility. France also includes a reference to the process used to create the microbead - hot-shaping process. Table 34 below provides a summary of the different microbead definitions provided in the law or regulations for each country.

Table 34: Definitions of microbeads in national laws or regulations

Country	Microbead Definition
Canada	microbeads are defined in item 133 of the List of Toxic Substances in Schedule 1 to the Canadian Environmental Protection Act, 1999 as plastic microbeads that are ≤ 5 mm in size
France	any solid particle including microbeads smaller than 5 millimeters made of plastic in whole or in part, obtained by a hot-shaping process
Italy	Microbeads (“microplastiche”) are defined as solid plastic parcels of 5 or less millimetres
Republic of Korea	Microplastic are defined as solid plastic under 5 mm, contained in rinse-off, scrub, and other products
New Zealand	Microbead means a water-insoluble plastic particle that is less than 5 mm at its widest point.
Sweden	plastic particles that are smaller than 5 mm in any dimension,
UK ² N. Ireland England Scotland Wales	“microbead” means any water-insoluble solid plastic particle of less than or equal to 5mm in any dimension;
US	“plastic microbead” is defined as any solid plastic particle that is – 5 millimeters or less in size and intended to be used to exfoliate or cleanse the body or any part of the body.

Prohibition of Use and Manufacture

All eight of the countries with national laws and regulations that control microbeads, prohibit the sale of personal care products covered under the law. Three of these countries also prohibit the manufacturing of products containing microbeads. In two cases, the United States of America and Canada, the law specifically prohibits the import of any toiletries that contain microbeads. Figure 12 provides the breakdown of prohibitions outlined in the eight countries with microbead controls. Table 35 below summarizes the prohibitions found in country laws and regulations.

Figure 12 | Number of Countries with different types of microbead prohibitions

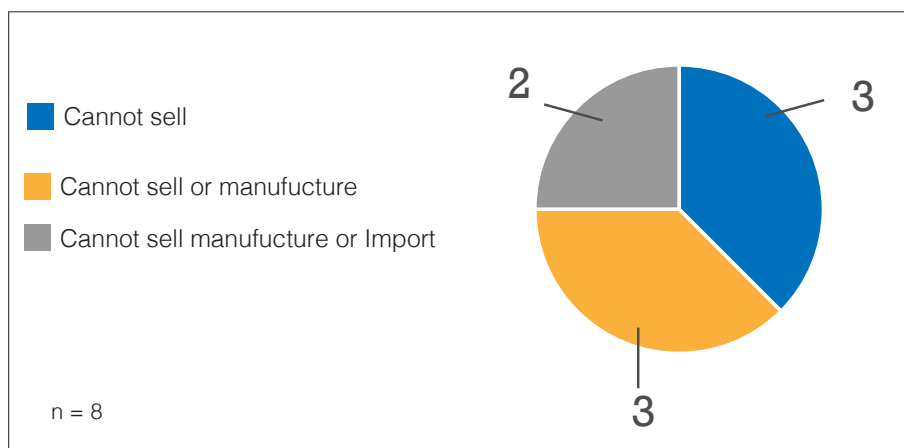


Table 35: Type of prohibitions limiting microbeads use in national laws and regulations

Country	Prohibition	Specific Description
Canada	Cannot manufacture, import, or sell	A person must not manufacture or import any toiletries that contain microbeads. A person must not sell any toiletries that contain microbeads
France	Cannot sell	The introduction on the market of exfoliating and cleaning rinse-off cosmetics. Defines "introduction on the market" as "making available for the first time the supply of a product intended to be distributed, consumed or used on the national territory."
Italy	Cannot sell	forbidden to sell cosmetic rinse products with an exfoliating or detergent action containing microplastics.
Republic of Korea	Cannot sell or manufacture	use of raw materials cannot be used in cosmetics and restrictions on the use of cosmetics should be specified
New Zealand	Cannot sell or manufacture	A person must not sell a prohibited wash-off product in New Zealand. A person must not manufacture a prohibited wash-off product in New Zealand.
Sweden	Cannot sell	It is prohibited to provide a cosmetic product on the market
UK³ N. Ireland England Scotland Wales	Cannot sell or manufacture	A person who, in the manufacture of any rinse-off personal care product, uses microbeads as an ingredient of that product is guilty of an offence. A person who supplies, or offers to supply, any rinse-off personal care product containing microbeads is guilty of an offence.
US	Cannot manufacture, import, package, or sell	The manufacture or the introduction or delivery for introduction into interstate commerce of a rinse-off cosmetic that contains intentionally-added plastic microbeads

Type of Products Covered

Seven of the countries with microbead laws and regulations do not cover all products known to contain microbeads such as household cleaning products, makeup products that do not rinse off, or industrial products⁴¹. New Zealand's law, however, includes a definition specifically prohibiting the sale and manufacture of wash-off products that contain plastic microbeads for the purposes of exfoliation, cleaning, abrasive cleaning or visual appearance of the product. According to the website of the Ministry of Environment, the intent is to capture wash-off cosmetics and heavy-duty hand cleansers as well as "abrasive cleaning products, including household, car or industrial cleaning products.⁴²" In the case of the France law, Article 124 of the microbead regulation states that French cosmetics industrials can still produce cosmetics containing plastic microbeads if they were already on the market before the 1st January 2018.

While most of the laws and regulations focus on rinse off cosmetics and certain exfoliating personal care products, the scope of products covered varies among the countries. All the laws and regulations include rinse off products, while only three include other types of cosmetic products. There is also a range of descriptions used to describe the banned products including toiletries, rinse-off cosmetics, and sanitary aids. Some specifically mention toothpaste be included in the product type. The specific description provided also varies in specificity with some outlining

the specific human body part to be cleaned with the rinse off product, while others focus on the exfoliating purpose of the product.

Table 36 below presents the different product types covered under each law or regulation as well as the specific description

of products covered. Table 37 illustrates the countries based on the scope of products covered

Table 36: Type of products covered under national laws and regulations limiting the use and sale of microbeads

Country	Product Type Covered	Specific Description
Canada	toiletries	Toiletries means any personal hair, skin, teeth or mouth care products for cleansing or hygiene, including exfoliants and any of those products that is also a natural health product as defined in the Natural Health Products Regulations or a non-prescription drug.
France	Cosmetic and rinse-off cosmetic	A cosmetic product shall mean any substance or preparation intended to be in contact with external parts of the human body (epidermis, hair system, nails, lips and external genital organs) or with teeth and oral mucosa with a view exclusively or mainly to cleaning them, perfuming them, changing their appearance, protecting them, keeping them in good condition or correcting body odours; a rinse-off cosmetic is defined as a “product which is intended to be removed by a water rinse immediately after use”
Italy	Rinse-off cosmetics	Products [that are] rinsing cosmetics with exfoliating or detergent containing microplastics.
Republic of Korea	Cosmetics and sanitary aids	product types such as cosmetics (for rinse-off, scrub, etc) and sanitary aids (gargle, toothpaste, and teeth whitening)
New Zealand	Wash-off products including heavy-duty hand cleansers, abrasive cleaning products and car or industrial cleaning products	wash-off product for 1 or more of the following purposes: (i) exfoliation of all or part of a person’s body; (ii) cleaning of all or part of a person’s body; (iii) abrasive cleaning of any area, surface, or thing; (iv) visual appearance of the product;
Sweden	rinse-off cosmetic	A cleansing, exfoliating or polishing effect in rinse-off cosmetic products. The prohibition covers cosmetic products intended to be rinsed of or spat out after use on skin, hair, mucous membrane or teeth.
UK⁴ N. Ireland England Scotland Wales	rinse-off personal care product	“rinse-off personal care product” means any substance, or mixture of substances, manufactured for the purpose of being applied to any relevant human body part in the course of any personal care treatment, by an application which entails at its completion the prompt and specific removal of the product (or any residue of the product) by washing or rinsing with water, rather than leaving it to wear off or wash off, or be absorbed or shed, in the course of time; and for this purpose— (a) a “personal care treatment” means any process of cleaning, protecting or perfuming a relevant human body part, maintaining or restoring its condition or changing its appearance; and (b) a “relevant human body part” is— (i) any external part of the human body (including any part of the epidermis, hair system, nails or lips); (ii) the teeth; or (iii) mucous membranes of the oral cavity;
US	cosmetics and non-prescription (also called “over-the-counter” or “OTC”) drugs, such as toothpastes	Rinse off cosmetic intended to be used to exfoliate or cleanse the human body or any part thereof; the term ‘rinse-off cosmetic’ includes toothpaste

Table 37: Type of Product covered in country national law or regulation

Rinse off Products	Cosmetics beyond rinse off	Toiletries or Sanitary Aids	Other home or industrial uses
Canada France Italy Republic of Korea New Zealand Sweden UK US	France New Zealand UK	Canada Republic of Korea New Zealand Sweden UK US	New Zealand

Exemptions

Four countries - Canada France, Sweden, and the United States of America include specific exemptions in the laws and regulations limiting the use and manufacturing of microbeads in personal care products. In two of these cases, France and Sweden, these exemptions are for biodegradable alternatives. In the case of New Zealand and the US, specific exemptions are outlined for medicine or medical purposes.

Canada provides an exemption for toiletries moving through the country. And as mentioned above, in France, French cosmetics companies can still produce cosmetics containing plastic microbeads if they were already on the market before the 1st January 2018. The descriptions of exemptions provided in country laws are provided in Table 38 below.

Phase In Dates

Each of the eight countries with national laws or regulations banning

microbeads include specific dates for when the ban takes effect. They range from May 19, 2017 to January 1, 2020. In some cases, countries extended the time for some product types (Canada, Republic of Korea, England, and the United States) or the selling of products (Italy, Sweden, and the United States). Each of the countries that comprise the United Kingdom have slightly different dates for when the regulations came or will come into force. The specific dates are provided in the Table 39 below.

Table 38: Type of exemption of microbead containing product in country laws and regulations

Country	Type of Exemption	Exemptions
Canada	Transit of goods	toiletries in transit through Canada, from a place outside Canada to another place outside Canada.
France	Biodegradable Alternatives	natural origin particles that are not likely to remain in the environment, to spread chemical or biological active ingredients as “solid natural origin particles for which the time and degradation conditions are defined by an order from the Minister for the Environment”. It also defines the term “natural origin particles that are not likely to impact animal food chains” as “solid natural origin particles not containing or not releasing during their degradation in sea water classified substances, either because of a danger for the environment, either due to a danger for human health, by an order from the Minister for the Environment”
Italy	No Exemption	
Republic of Korea	No Exemption	
New Zealand	Medical	Medical device and medicine - Medical device is any device, instrument, apparatus, appliance, or other article is intended to be used in, on, or for human beings for a therapeutic Medicine is defined as any substance or article that is manufactured, imported, sold, or supplied wholly or principally for administering to 1 or more human beings for a therapeutic purpose
Sweden	Biodegradable Alternatives	The ban does not cover cosmetic products containing microbeads consisting solely of natural occurring polymers. The Chemicals Agency may issue regulations on exceptions or in individual cases grant exemption from the ban.
UK⁵ N. Ireland England Scotland Wales	No Exemption	
US	Medical	drugs that are not also cosmetics

Table 39: Dates when control of microbead use takes effect in countries with laws and regulations

Country	Phase in Dates
Canada	Entered into Force January 1, 2018 Prohibition to manufacture, sell, or import applies on or after July 1, 2018 Toiletries that are also natural health products or non-prescription drug prohibition applies on or after July 1, 2019
France	Entered into Force January 1, 2018
Italy	Entered into force January 1, 2018, Prohibition to sell begins January 1, 2020
Republic of Korea	Entered into force July 1, 2017 for cosmetics, May 19, 2017 for sanitary aids
New Zealand	Entered into force June 7, 2018
Sweden	Entered into force on 1 July 2018. Cosmetic products released on the market before July 1, 2018 must be phased out by the end of December 2018.
UK ⁶ N. Ireland England Scotland Wales	N. Ireland - The prohibition on the manufacture and sale will come into force in September 2018. England – The prohibition on the manufacture came into force on January 9, 2018 for manufacture, June 19, 2018 for sale Scotland - The prohibition on the manufacture and sale came into force on July 9, 2018. Wales - The prohibition on the manufacture and sale came into force on 30 June 2018.
USA	For rinse-off cosmetics: Prohibition to stop the manufacturing of the products was July 1, 2017. Prohibition to stop the introduction or delivery for introduction of these products into interstate commerce was July 1, 2018. For rinse-off cosmetics that are also non-prescription drugs: The deadline was July 1, 2018 to stop manufacturing the products described in the law. The deadline to stop the introduction or delivery for introduction of these products into interstate commerce is July 1, 2019.

Countries with Proposed Laws

In addition to the countries that have passed national laws or regulations controlling microbeads, four countries are in the process of passing microbead bans. In this report, a country with a proposed law is defined as a country where specific efforts to implement legislation or a binding agreement has been made. It does not include countries where support for a ban has been announced, but no legal action has been taken. The countries with proposed laws are Belgium, Brazil, India, and Ireland. In addition, the European Union has announced that the European Commission has started the process to ban intentionally added microplastics as part of its Europe-wide strategy on plastics. Descriptions of the proposed laws are provided below.

Key Microbead Finding #4: As at July 2018, four countries and the EU have proposed new laws or regulations banning microbeads at the national level.

Belgium: The Federal Minister for Energy, the Environment and Sustainable Development and representatives of the Belgian and Luxembourg association for producers and distributors of cosmetics, cleaning and maintenance products, adhesives, sealants, biocides and aerosols (DETIC) have prepared a Draft Sector Agreement to support the replacement of microplastics in consumer products. The legally

binding agreement stipulates that the members of DETIC commit to completely replace ‘plastic microbeads’ in cosmetic rinse-off products and oral care products in the Belgian market by 31 December 2019. The sector agreement in Belgium is not a law or regulation but a sector agreement voluntary agreed upon by the DETIC. The agreement will be legally binding on the Parties and is therefore considered both a proposed law and a voluntary agreement in this report.

Brazil: A draft law (PL 6528/16) banning the use of microbeads in personal care products is currently being considered in Brazil. The law would specifically prohibit the handling, manufacture, importation and marketing, throughout the national territory, of toiletries, cosmetics and perfumery containing the intentional addition

of plastic microspheres. The law defines microbeads as any solid plastic or solid plastic particle less than 5 mm, used to clean, lighten, exfoliate the body or any of its parts. It would come into force on the date of publication and includes deadlines for handling and manufacturing as well as importing and marketing.

India: The Ministry of Health, along with different departments of the Bureau of Indian standards, have placed microbeads in a category not allowed as ingredients of various cosmetic and other such products including household laundry detergent bars, synthetic detergents for washing woolen and silk fabrics, synthetic detergents for industrial purposes, and household laundry detergent powders. However, final notification, including any modifications, will be published after inviting comments from the public. Further the National Green Tribunal (NGT) has issued many notices to the Government of India to comment on the issue.

Ireland: The “Prohibition of Micro-Plastics Bill 2016” is currently being considered in Ireland. If enacted, the bill would prohibit the manufacture, sale and import of any cosmetic product containing micro-plastics as a raw material. It is currently before Dáil Éireann, the primary House of Parliament. This bill includes personal care products included but not limited to facial scrub, soap, lotion, shower gel, sunscreen, make-up, deodorant or toothpaste and defines “micro-plastics” as particles less than 5 millimeters in diameter.

European Union (EU): The European Union has released a new plastics

strategy that outlines specific actions to curb microplastics pollution. This strategy includes starting the process to restrict the intentional addition of microplastics to consumer and professional use products via REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) regulation. The European Chemical Agency was asked to collect background information and review the scientific basis for taking regulatory action at the EU level. The agency will review the evidence presented and then submit a plan for restriction proposal to the EU Commission by mid-January 2019. Multiple member countries, including Austria, Belgium, Sweden, Luxembourg and the Netherlands, have voiced support for an EU ban⁴³.

Voluntary Measures

This section provides an overview of the voluntary measures taken to phase out or limit the use of microbeads in personal care products. It includes actions taken in specific countries as well as voluntary approaches used by regional government institutions and multi-national companies. Given the country-specific focus of this report, it is unlikely the actions highlighted in this section represent all voluntary initiatives used to control the use of microbeads in consumer products. Instead, it provides an illustrative sampling.

Although voluntary agreements are usually not legally binding, they are still noteworthy considering they reduce the use and sale of microbead containing products and therefore, should contribute to the reduction of marine litter. In addition, voluntary measures may

form the basis of binding limits in the future. For example in three countries, France, Sweden, and the UK, trade association and individual companies announced voluntary phase out initiatives before legislation to ban microbeads was enacted.

Individual governments as well as trade associations and companies within a specific country have used various approaches designed to spur the elimination of microbeads in personal care products. Regional governments have also issued statements of support and developed action plans for eliminating the use of microbeads,

Key Microbead Finding: #5: Governments, companies, and civil society organizations are utilizing a range of voluntary approaches to reduce the number of products containing microbeads. These include government and industry agreements, industry and company specific voluntary phaseouts, regional government statements of support, and ecolabeling.

while civil society organizations have also publicly provided lists of products containing microbeads to spur action. Finally some individual multinational companies have announced the voluntary elimination of microbeads in their products wherever they are sold. These approaches are discussed below.

Government and Industry Voluntary Initiatives

Voluntary measures to phase out or eliminate microbeads in cosmetic products were found

in 16 countries. Overall the specific voluntary approaches that have been used to phase out or encourage the elimination of microbeads by individual governments and national companies or trade associations include

- Government and industry sector negotiations and agreements for voluntary phase-out action
- Individual company and/or trade association voluntary industry phase-out actions

- Government statements of support or plans for a phase-out or ban of microbeads
- Ecolabeling

The list of countries by voluntary approach is provided in Table 40 below. Table 41 provides a description of the voluntary initiative being used in each country. The number of countries using each type of voluntary approach is provided in Figure 13. Figure 14 provides a breakdown by region.

Table 40: Countries organized by different type of voluntary initiative

Government and industry sector agreements for voluntary phase-out action	Individual company and/or trade association voluntary industry phase-out actions	Government statements of support for a phase-out or ban of microbeads	Ecolabeling
Australia Belgium Germany Luxembourg Netherlands	Canada China Denmark Finland France Singapore UK	Finland France Iceland Ireland Luxembourg Norway Sweden	Denmark Finland Iceland Norway Sweden

Figure 13 | Number of countries disaggregated by voluntary approach to the control of microbeads

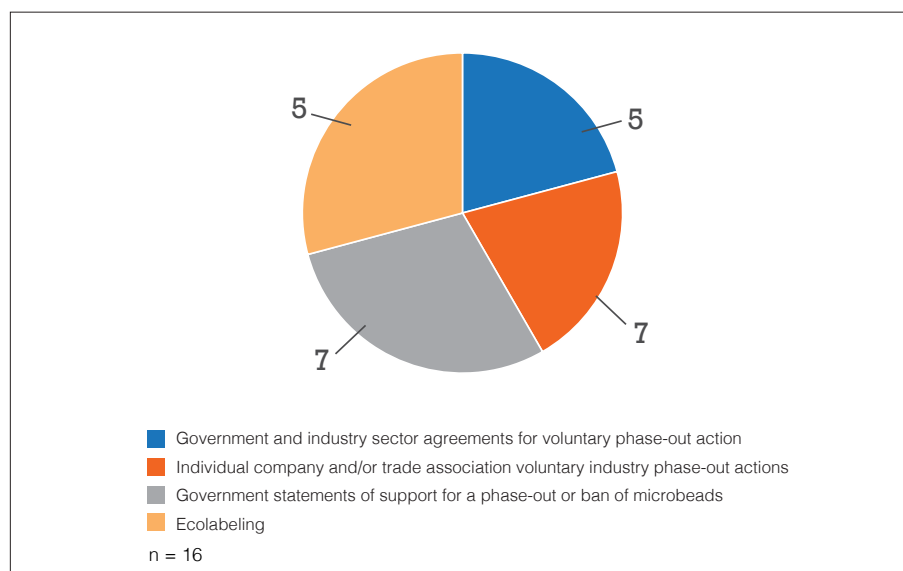


Figure 14 | Voluntary measures to control microbeads disaggregated by region

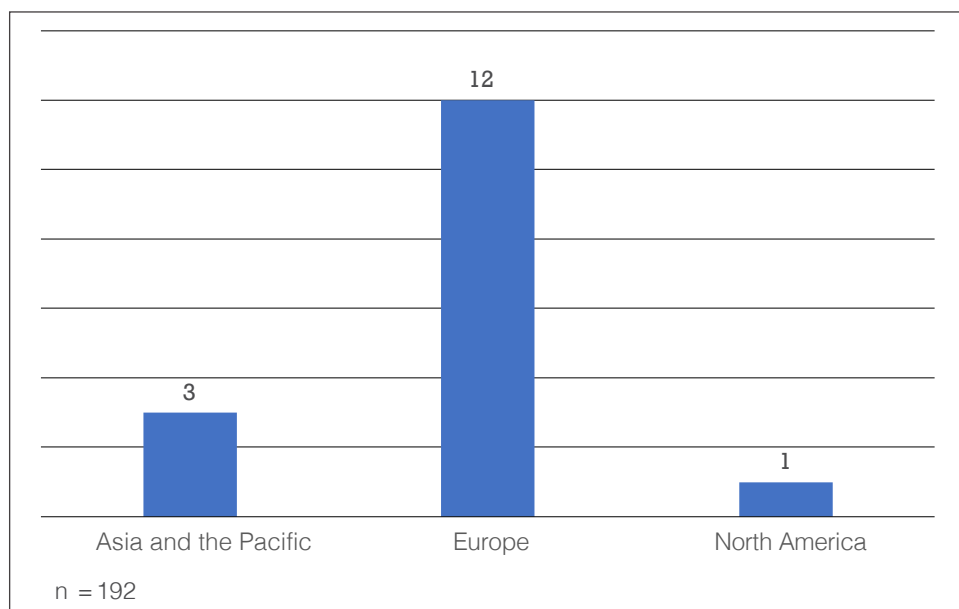


Table 41: Summary of the voluntary approaches taken by each country

Country	Type of Voluntary Measure	Voluntary Measure Description
Australia	Government and industry sector negotiations and agreements for voluntary phase-out action	<p>The Department of the Environment and Energy is working with industry and state and territory governments to ensure a voluntary phase-out of microbeads from rinse-off, personal care, cosmetic and cleaning products by July 2018. The phase-out focusses on microbeads in rinse-off products, which would be reasonably capable of entering the marine environment through normal use.</p> <p>The voluntary phase out does not include a number of products known to contain microbeads including cosmetic products that are generally wiped-off, such as make up and lipsticks, some industrial cleaning products or medicines</p> <p>In an assessment published in May 2018, government officials concluded that industry’s efforts to deliver a voluntary phase-out will be effective and that regulation is not needed at this stage.⁴⁴</p>
Belgium	Government and industry sector negotiations and agreements for voluntary phase-out action	In the draft sector agreement outlined above members of DETIC voluntary agreed to completely replace ‘plastic microbeads’ in cosmetic rinse-off products and oral care products by 31 December 2019. The sector agreement also includes a cancellation process where either party may cancel this Agreement with a notice period of six months. Thus in this report Belgium’s sector agreement is considered both a proposed law and a voluntary agreement.
Canada	Individual company and/or trade association voluntary industry phase-out actions	The Cosmetics Alliance Canada (formally the Canadian Cosmetic Toiletry and Fragrance Association) committed to a voluntary phase-out of microbead containing toiletries on or before the federal ban went into force. The Alliance represents manufacturers responsible for 99 per cent of the total ⁴⁵ amount of plastic microbeads used in 2014.
China	Individual company and/or trade association voluntary industry phase-out actions	Sa Sa is the first Hong Kong retail group to release a public statement and commit to a phaseout timeline for microbeads ⁴⁶ . In their Position on Microbeads, they state that by 31 December 2018, all exfoliating or cleansing products sold at Sa Sa under private labels will contain no microbeads in any of its formulation. They will also make an effort to ban any microbeads in their non-private label products as well. products, through vendor communication, evaluation, contract and product review.

Denmark	Individual company and/or trade association voluntary industry phase-out actions Ecolabeling	The Danish cosmetics industry's trade association, The Danish Association of Cosmetics and Detergent Industries (SPT) has expressed support for the Cosmetics Europe's recommendation to avoid non-biodegradable microbeads in wash-off cosmetic in 2020. The SPT statement mentions that the vast majority of Danish companies have already phased out the use of microbeads, and therefore, microbeads are only present in a very limited number of products in Danish market ⁴⁷ . Denmark participates in the Nordic Swan Ecolabel, a voluntary official ecolabel introduced by the Nordic Council of Ministers in 1989 ⁴⁸ . The cosmetics ecolabel criteria include limits on the use of microbeads including the prohibition of microplastics in the product or raw material ⁴⁹ .
Finland	Individual company and/or trade association voluntary industry phase-out actions Government statements of support for a phase-out or ban of microbeads Ecolabeling	In 2017, K (Kesko) Group fulfilled its commitment and eliminated microbeads from Pirkka cosmetic products. Microbeads were removed in 2017 from Pirkka lip balms and shampoos and will also be removed in 2018 from all K Group detergents ⁵⁰ . Kesko is a Finnish company operating in the grocery, the building and technical, and the car trade with retail stores throughout Europe. At the June 2017 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development, Finland made a voluntary government commitment to ban no later than June 2020, the placing on the market of rinse off cosmetic products that contains plastic microbeads that are intended to be used to exfoliate or cleanse the human body. ⁵¹ Finland participates in the Nordic Swan Ecolabel, a voluntary official ecolabel introduced by the Nordic Council of Ministers in 1989 ⁵² . The cosmetics ecolabel criteria includes limits on the use of microbeads including the prohibition of microplastics in the product or raw material. ⁵³
France	Individual company and/or trade association voluntary industry phase-out actions Government statements of support for a phase-out or ban of microbeads	The French Federation of Beauty Companies (FEBEA or Fédération des Entreprises de la Beauté), the only trade association for manufacturers operating in France, has committed to removing non-biodegradable plastic particles from rinse-off products by 2018. ⁵⁴ At the June 2017 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development, France made a voluntary government commitment to ban no later than June 2020, the placing on the market of rinse off cosmetic products that contains plastic microbeads that are intended to be used to exfoliate or cleanse the human body. ⁵⁵
Germany	Government and industry sector negotiations and agreements for voluntary phase-out action	The Ministry of the Environment in 2013 reached agreement with German cosmetics industry that they voluntarily reduce the use of microplastics in personal care products. ⁵⁶
Iceland	Government statements of support for a phase-out or ban of microbeads Ecolabeling	At the June 2017 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development, Iceland made a voluntary commitment reduce marine litter in its waters over the next three years. This includes work to enhance knowledge of microplastics and identify measures to reduce discharge to the marine environment. ⁵⁷ Iceland participates in the Nordic Swan Ecolabel, a voluntary official ecolabel introduced by the Nordic Council of Ministers in 1989 ⁵⁸ . The cosmetics ecolabel criteria includes limits on the use of microbeads including the prohibition of microplastics in the product or raw material. ⁵⁹
Ireland	Government statements of support for a phase-out or ban of microbeads	At the June 2017 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development, Ireland made a voluntary government commitment to ban no later than June 2020, the placing on the market of rinse off cosmetic products that contains plastic microbeads that are intended to be used to exfoliate or cleanse the human body. ⁶⁰
Luxembourg	Government and industry sector negotiations and agreements for voluntary phase-out action	At the June 2017 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development, Luxembourg made a voluntary government commitment to ban no later than June 2020, the placing on the market of rinse off cosmetic products that contains plastic microbeads that are intended to be used to exfoliate or cleanse the human body. ⁶¹

Netherlands	Government and industry sector negotiations and agreements for voluntary phase-out action	In 2014, a motion was adopted by the Ministry of Infrastructure and the Environment calling for a binding agreement with the cosmetics branch aimed at a total phase out by 2017 at the latest ⁶² . According to a report by the Dutch Cosmetics Association (NCV, Nederlandse Cosmetica Vereniging), the Dutch cosmetics sector has already stopped on a voluntary basis with the use of plastic microbeads in cosmetic products. ⁶³
Norway	Government statements of support for a phase-out or ban of microbeads Ecolabeling	The Norwegian government presented a White Paper to its Parliament in June 2017 that includes a plastic strategy to reduce the release of microplastics from key land-based sources and strengthen the clean-up efforts of plastics from along the Norwegian coastline. ⁶⁴ Norway participates in the Nordic Swan Ecolabel, a voluntary official ecolabel introduced by the Nordic Council of Ministers in 1989 ⁶⁵ . The cosmetics ecolabel criteria includes limits on the use of microbeads including the prohibition of microplastics in the product or raw material. ⁶⁶
Singapore	Individual company and/or trade association voluntary industry phase-out actions	Press reports from 2016 indicate that Guardian Singapore, a health and beauty chain, has banned microbeads from its new rinse-off cosmetics and personal care products and all its own-brand products will be free of microbeads by the end of 2017. ⁶⁷
Sweden	Government statements of support for a phase-out or ban of microbeads Ecolabeling	At the June 2017 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development, Sweden made a voluntary government commitment to “ban no later than June 2020, the placing on the market of rinse off cosmetic products that contains plastic microbeads that are intended to be used to exfoliate or cleanse the human body.” ⁶⁸ Sweden participates in the Nordic Swan Ecolabel, a voluntary official ecolabel introduced by the Nordic Council of Ministers in 1989 ⁶⁹ . The cosmetics ecolabel criteria includes limits on the use of microbeads including the prohibition of microplastics in the product or raw material. ⁷⁰
UK	Individual company and/or trade association voluntary industry phase-out actions	The Cosmetic, Toiletry and Perfumery Association (CTPA) states that the UK cosmetics industry was voluntarily removing plastic microbeads from products as part of a Europe-wide initiative launched in October 2015. “As a result, the vast majority of UK cosmetics manufacturers were already well on the way to removing plastic microbeads completely from products, prior to the introduction of the legislation in the UK.” ⁷¹

Regional Government Support for Microbead Bans

Statements of support and development of regional action plans that include plans for phasing out the use of microbeads in personal care products have been issued by the EU, HELCOM, Nordic Council of Ministers, OSPAR, and SPREP regional bodies. The EU has also incorporated the elimination of microbeads in their ecolabeling program. These regional actions are outlined below.

EU: In addition to the proposed plans to restrict plastic microbeads outlined above, the EU has an Ecolabeling program that includes criteria requiring the exclusion of microbeads from personal care and rinse off cosmetic products, as part

of the formulation⁷². In June 2017 the EU announced new criteria for six widely used types of detergents - laundry, industrial laundry, dishwasher, industrial dishwasher, hand dishwashing and hard-surface cleaning detergents. These new criteria will now require these products to be free of microbeads as well⁷³.

HELCOM: HELCOM (Baltic Marine Environment Protection Commission - Helsinki Commission) is the governing body of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, known as the Helsinki Convention. The Contracting Parties are Denmark, Estonia, the European Union, Finland, Germany, Latvia, Lithuania,

Poland, Russia and Sweden. Regional Baltic Sea Action Plan marine junk. HELCOM has created a Regional Action Plan for Marine Litter that sets the standard for each HELCOM coastal member countries for putting agreed commitments into action. This action plan includes specific measures to address microplastics. To address the use of microbeads in personal care products formulations, it states “the possible impact on the marine environment should be reduced by applying substitutes.”⁷⁴

Nordic Council of Ministers: The Nordic Council of Ministers and the Nordic Council, a forum for official cooperation between Denmark, Finland, Iceland, Norway,

Sweden, the Faroe Islands, Greenland and Åland, launched a Nordic program to reduce the environmental impact of plastic in May 2017. This program includes multiple objectives to develop a framework that prevents plastic waste by replacing plastics with other materials and cites the use of microbeads as an example⁷⁵. They have also contributed to the EU strategy on plastic.

OSPAR: OSPAR is the mechanism by which 15 Governments and the EU cooperate to protect the marine environment of the North-East Atlantic. OSPAR's Regional Action Plan includes a provision to engage with all appropriate sectors (manufacturing, retail etc.) to explore the possibility of a voluntary agreement to phase out the use of microbeads as a component in personal care and cosmetic products⁷⁶. It also states that if voluntary agreements are not sufficient, OSPAR should be prepared to call on the EU to introduce measure to achieve the complete phasing out of the use of microbeads in these products.⁷⁷

SPREP: In September 2017, the Secretariat of the Pacific Regional Environment Programme (SPREP) endorsed a Call for Action on Plastic Microbeads. This call to action commits member governments to take measures to ban the use of plastic microbeads in their countries and advocate other members for such bans.⁷⁸ SPREP has 21 Pacific island member countries and territories and 5 developed countries with direct interest in the region.

Other Voluntary Approaches

In addition to the country specific

and regional government voluntary approaches to minimizing and phasing out the use of microbeads in personal care products, civil society and multinational corporations have also taken action. Examples of these type of approaches are provided below.

Public listing of products containing and not containing microbeads

The International Coalition Beat the Microbead, supported by 94 NGOs in 44 countries and led by the Plastic Soup Foundation, houses a website and app that presents product lists from 24 countries⁷⁹. The lists include the names of companies, producers and brands and ranks products that contain and don't contain ingredients which are commonly considered to be microplastics by the amount of microbead they contain. They also offer their own ecolabel, 'Look for the Zero' for products guaranteed to be 100% free of microplastic ingredients. These initiatives, along with the EU and Nordic Swan ecolabels, look to recognize and reward microbead free products and create market incentives that positively influence the choices people make when buying personal care products.

Multi-national Company Voluntary Elimination of Microbeads

Like many national companies, multinational companies and multinational trade unions have also voluntarily agreed to phase out microbeads in the products they produce. In 2015 Cosmetics Europe, the European trade association for the cosmetics and personal care industry,

recommended to its members they discontinue, by 2020, the use of synthetic microbeads used for exfoliating and cleansing, that are non-biodegradable in the aquatic environment. This recommendation built on voluntary initiatives already taken by individual member companies of Cosmetics Europe.

Unilever stopped using microbeads as a scrub material in 2014 and replaced them with natural alternatives.⁸⁰ Colgate-Palmolive,⁸¹ Johnson & Johnson Family of Consumer Companies⁸² along with Target in their branded products⁸³ have as well. L'Oréal no longer uses plastic microbeads as cleansing or exfoliating agents in its wash-off products, first for Biotherm (2014) and The Body Shop (2015) before being extended to all the Group's portfolio in 2017⁸⁴. Boots brands and exclusive beauty and personal care products, owned by US company Walgreens Boots Alliance (WBA), reformulated to stop using plastic microbeads in 2015 and stopped purchasing products with plastic microbeads after December 2017⁸⁵. WBA worked to do the same with its US suppliers in advance of the US microbead ban⁸⁶.

CONCLUSIONS

This report documents the progress made to regulate and control the manufacture, use and trade in plastic bags, single use plastics and microplastics, including microbeads in personal care products. This report indicates that the methods used to regulate plastics differs greatly across regions and countries. More countries have taken action to regulate plastic bags than any other plastic type outlined in this report. A range of approaches including bans, market mechanisms and trade restrictions are utilized to control plastics that end up as marine pollution.

Plastic bags: While a number of countries have sought to regulate marine pollution through the banning of plastic bags, bans in most countries do not cover the life cycle of plastics bags – manufacture and production, use and distribution as well as trade. Partial bans exist both related to material content and thickness in most countries. Even within countries that more strictly regulate plastic bags several exemptions exist to this requirement. Very few countries include expansive tax controls or other incentives to manufacture bags with more renewable materials or incentives for customers to use these bags or promote awareness of their importance. Targets that mandate recycling rates within legislation vary widely and while some important regional and country level examples exist there is not a predominant approach to include

consumer level restrictions or percentage production reductions in use over time in many countries.

Several countries have passed new laws which explore innovative and important approaches to tackle plastic bag pollution. China's ban on the importation of certain types of used plastic bags is a novel approach, as is the phase out of use of plastic bags found in Republic of Moldova and Uzbekistan. Cambodia's law that includes encouragement of importation, production and of biodegradable and bioplastic bags and those made from renewable materials such as banana leaves, clothing bags or environment bags, charges on use of plastic bags, and regulation of import of the types of plastic bags is comprehensive and unique. Palau's new law giving one year for individuals or business to phase out plastic products and

requiring the use of biodegradable and compostable bags is extremely progressive. As are incentives provided in Vietnam for environmentally friendly bags which are exempt from an environmental tax and in Malaysia where there is specific biodegradable disposable packaging available for Investment tax allowances also are important to mention. The range of countries that have adopted elements in their legislation that require manufactures and producers to manage the impacts of their products through extended producer responsibility is an encouraging sign of progress.

At the regional level, the EU has taken steps to put in place a directive on plastic packaging which has to be instituted by national law in all members countries. Also, of significance is the number of countries regulating the import of plastic bags, including over 30 countries in Africa and those whose import restrictions on plastic bags are particularly restrictive e.g. Pakistan.

Single Use plastics: Bans on single-use plastics have increased rapidly in recent years (since 2012) but the most common regulatory instruments remain extended producer responsibility, taxes and fees, and recycling rules to reduce demand or manage disposal. Roughly half of the bans cover all stages of commerce of single-use plastics—from production to distribution, import and use, while the rest focus on specific aspects. Countries have primarily targeted products in the food

service industry, as well as plastic packaging.

While bans are widespread, instruments of taxation are far more concentrated in Europe, where 17 of the 31 national taxation measures are in place. Extended Producer Responsibility has been established in 42 countries to encourage retailers to develop systems for collecting, reusing, recycling or safely disposing of plastic products. Forty-seven countries have enacted recycling mandates, making it the most common approach, but a smaller subset define clear economy wide targets or offer fiscal incentives.

Several countries have begun to put in place important innovative approaches to tackle single use plastic, including those which have put in place regulations based on a detailed definition of plastic as the Seychelles or Canada's ban which is part of a larger circular economy initiative and green growth act.

Microbeads: To date, eight countries have passed laws or regulations at the national level while four, plus the EU, are in the process of passing new laws or regulations. This suggests that, to date, few countries have taken legal action to prohibit the use of plastic microbeads in products.²²

The laws and regulations, which all limit the selling of microbead containing products, define microbeads as plastic particles smaller or equal to 5 millimeters in size, but vary in the control of manufacturing or importing of microbead containing products. The scope of products and specificity of terms used to describe the products

covered under the law also varies, although all but one country, New Zealand, limit control to rinse off cosmetics and other personal care products. This suggests that countries have prioritized personal care products for bans and have not used national legislation to prohibit the use of microbeads in other types of cleaning or industrial products.

The report finds that actors in at least 14 countries have utilized voluntary approaches at the country level to encourage the elimination of microbeads in personal care products. Beyond individual country actions, multinational companies, trade associations, and regional government bodies have all taken voluntary initiatives to spur the phase out of microbead-containing cosmetic and personal care products across the globe. These findings suggest that more countries are choosing to utilize voluntary approaches rather than laws or regulations to explicitly control the use and manufacture of microbeads and microbead containing products.

However, the report's findings also highlight that three countries that have passed national bans and two that are in the process of passing proposed laws have also initiated voluntary actions. Many trade associations and individual countries have also taken on voluntary phase outs at both the country and global level. This suggests that discussions around the need to eliminate the use of microbeads in personal care products through legislative action may spur voluntary action in some countries.

It should also be noted that many companies, governments, and civil society organizations have cited the availability of biodegradable and natural alternatives to plastic microbeads such as including jojoba beads, apricot seeds, and powdered nut shells as reasonable substitutes for plastic microbeads. Further, ecolabeling programs have begun to include the prohibition of plastic, nonbiodegradable microbeads in their Ecolabel criteria for cosmetics and other personal care products. Coupled with the growing awareness around the problems of marine litter and the contribution of microbeads, the relatively easy availability of alternatives has likely reinforced the range of approaches being used to control microbeads. This range can, in turn, act as a source of inspiration for other actions.

Microbeads used in personal care and cosmetic products are a significant direct source of marine litter, especially in locations with no or limited wastewater treatment in place. Phasing out the use of microbeads in personal care products will help contribute to Sustainable Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development by reducing the amounts of micro particles in the marine environment. Regional declarations, national legislation and voluntary initiatives all have an important role to play in achieving this global commitment to reduce marine litter.

RECOMMENDATIONS:

Multiple campaigns and efforts are ongoing to push for country action on the reduction and recycling of plastic products but too few countries in general have specific legislation that either places controls on producers or manufactures to address waste minimization, adopt recycling targets or charge enough to disincentivize the purchase of plastic products. If countries adopt specific legislation regulating plastic, they are more likely to be able to meet their targets under Sustainable Development Goal 14 which seeks to ensure the conservation and sustainable use of oceans. As knowledge and understanding of the scale of the problem of plastic pollution grows, more concerted action will be required at the national level to address the scale of the marine pollution problem caused by plastics. Given the urgency of the plastic pollution crisis, measuring and monitoring the implementation and impact of these different regulatory measures will be crucial to scaling successful efforts.

ANNEX

Table 42: Plastic Bag Indicators

General
1. Are there any laws that prevent regulating the sale, use or disposal of plastic bags?
2. Is there any overarching or framework law that regulates marine pollution which includes plastics in the country being researched? How does the framework law address plastics?
Manufacture and Production
1. Are there any national laws that prohibit or ban the manufacture or production of plastic bags?
2. Is the prohibition or ban total?
3. Is the prohibition or ban partial?
4. If partial, which of the following types? (Type YES for all that apply).
4.1 Production restrictions, i.e., manufacture of production of plastic bags is limited to a maximum number or volume.
4.2 Thickness requirement, i.e., thin, ultrathin, or lightweight plastic bags are prohibited.
4.2.1. Specify the required thickness or size (minimum or maximum _____).
4.3 Material content requirement, i.e.
4.3.1. Requirement of a percentage or content of recycled material.
4.3.2. Only biodegradable and/or compostable bags are allowed.
4.4 Other (please specify): _____
5. Are there national laws that impose a tax on the manufacture of plastic bags?
6. Are there any national laws that provide fiscal incentives (e.g. tax breaks) to manufacturers to recycle and/or produce re-usable plastic bags?
6.1. If there are national laws that provide fiscal incentives, what are these incentives (e.g., exemption from tax)?
Use
1. Are there any national laws that prohibit or ban the free distribution of plastic bags?
2. Is the ban total?
3. Is the ban partial?
4. If partial, which of the following types? (Type YES for all that apply).
4.1 Only biodegradable or compostable plastic bags are allowed for free distribution.
4.2 Paper bags allowed for free distribution in lieu of plastic bags.
4.3 Other (please specify): _____
5. Are there any national laws that mandate the retailer to impose a levy or fee to the customer for plastic bags provided?
5.1 If so, how much is the levy/fee?
6. Are there any national laws that mandate or promote the use of re-usable bags?
7. Are there any national laws that place a tax on the retailer for the distribution of plastic bags?
7.1 If so, how much?
8. Are there any national laws that require creation of a fund (e.g. environmental fund) from taxes or levies charged on plastic bags?
8.1. If so, provide the name of the fund and the weblink
Disposal
1. Are there any national laws that regulate or require the return, collection, and disposal of plastic bags? If 'Yes', what is the extent of the provision?
1.1 Who is required?

1.1.1 Manufacturer or producer (for example, under an extended producer responsibility*)
1.1.2 Retailer
1.1.3 Consumer
2. Are there any national laws that require the recycling of plastic bags?
3. Are there any national laws that require specific fees/taxes for the disposal of plastic bags?
3.1 Who is required to pay the fee/tax?
3.1.1 Manufacturer
3.1.2 Retailer
3.1.3 Consumer
4. Are there any national laws that impose fines for unlawful disposal of plastic bags outside of regulated spaces? What are the fines?
5. Are there any national solid waste management laws that cover plastic bags? If so, what is the extent?
Trade
1. Are there any national laws that prohibit or ban the import of plastic bags?
2. Is the ban total?
3. Is the ban partial?
4. If partial, which of the following types? (Type YES for all that apply).
4.1 Ban on non-biodegradable bags.
4.2 Ban on thin, ultrathin or lightweight bags. Specify size or thickness requirement: _____.
4.3. Other (please specify): _____.
5. Are there any national laws that prohibit or ban the export of plastic bags?

Table 43: Single Use Plastics Indicators

General
1. Are there any laws that prevent regulating the sale, use or disposal of single use items?
Manufacture and Production
1. Are there any national laws that ban the manufacture of single-use plastic products?
2. Is the prohibition or ban total?
3. Is the prohibition or ban partial?
4. If partial, which of the following types?
4.1 Ban on certain products (type YES for all that apply):
4.1.1 Plastic bottles or beverage containers.
4.1.2 Plastic plates, cups, cutlery or stirrers
4.1.3 Plastic straws
4.1.4 Other (please specify): _____.
4.2 Ban on certain materials (type YES for all that apply):
4.2.1 Polystyrene/expanded polystyrene/Styrofoam
4.2.2 Other (please specify): _____.
4.3 Production restrictions i.e. manufacture of production of single use plastic products is limited to a maximum number or volume.
5. Are there any national laws that impose a tax on the manufacture of single use plastic products?
6. Are there any national laws that provide fiscal incentives (e.g. tax breaks) to manufacturers to recycle and/or produce re-usable products?
Use
1. Are there any national laws that prohibit or ban the free distribution or use of single use plastic products?
2. Is the prohibition or ban total?

2. Is the prohibition or ban partial?
4. If partial, which of the following types:
4.1 Ban on certain products (type YES for all that apply):
4.1.1 Plastic bottles or beverage containers.
4.1.2 Plastic plates, cups, cutlery or stirrers
4.1.3 Plastic straws
3.1.4 Other (please specify): _____.
4.2 Ban on certain materials (type YES for all that apply):
4.2.1 Polystyrene/expanded polystyrene/Styrofoam
4.2.2 Other (please specify): _____.
4.3 Production restrictions i.e. manufacture of production of single use plastic products is limited to a maximum number or volume.
5. Is there a ban on certain products? If YES, specify which type of products: _____
6. Is there a ban on certain business establishments? If YES, specify which type of businesses (e.g. beach restaurants prohibited from providing straws): _____
7. Are there any national laws that ban the sale of single use plastic products? If YES, specify which type of products: _____
9. Are there any national laws that impose a tax on retailers/business establishments for the use or distribution of single use plastic products? If YES, specify which type of products: _____
11. Are there any national laws that provide incentives to retailers/business establishments for the use of re-usable plastic products? If YES, pecify which type of products: _____
12. Are there any national laws that mandate targets for reduced use or recycling of plastic products?
13. Are there any national laws that require the creation of an environmental fund from charges levied on single use plastic items?
Disposal
1. Are there any national laws that regulate the return, collection or disposal of single use plastic items?
1.1 If YES, who is required?
1.1.1 Manufacturer or producer (for example, under an extended producer responsibility*)
1.1.2 Retailer
1.1.3 Consumer
2.Are there any national laws that require recycling of single use plastic items?
3. Are there any national laws that require specific fees/taxes or other charging scheme for the disposal of single use plastic items?
3.1 Who is required to pay the fee/tax?
3.3.1 Manufacturer
3.3.2 Retailer
3.3.3 Consumer
4. Are there any national laws that impose fines for unlawful disposal of single use plastic items outside of regulated spaces? What are the fines?
5. Are there any national solid waste management laws that cover single use plastic items? To what extent?
Trade
1.Are there any national laws that prohibit or ban the import of single use plastic products?
2.Is the ban total?
3.Is the ban partial?
4. If partial, which type of ban?
4.1 Ban on certain products. Specify which type of products: _____
4.2 Ban on certain business establishments. If YES, specify which type of businesses: _____
5. Are there any national laws that prohibit the export of single use plastic items?

Table 44: Microbead Indicators

1. Are there any laws that prevent regulating the sale, use or disposal of microbeads?
1. Are there any national laws that prohibit or ban the manufacture, trade and sale of microbeads?
2. Is the prohibition or ban total?
3. Is the prohibition or ban partial?
4. Does the law include a definition of microbead? Provide the definition.
5. Does the ban include restrictions on size? List sizes included in ban.
6. Does the ban include restrictions on product type? List the products included in the ban.
7. Are there any exemptions provided in the laws regulating microbeads? List the exemption.
8. Does the ban include provisions on plastic type including biodegradable alternatives? List the specific type of plastics included.
9. What is the date the law/laws come into effect?
10. Is any new law being proposed in your country?
11. Is there a proposed timeframe for entry-into-force? Provide the timeframe.
12. Does the law include control or prohibition on disposal of products or waste that contain microbeads? If yes, provide description of provision.
13. Does the law on microbeads add or reference microbeads in laws governing toxic substances or additives?
14. Are there any voluntary measures or standards set by the government or industry to phase out from microbeads?

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End notes

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15. UN Environment Assembly resolutions 1/6, 2/11 and 3/7.
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17. UN Environment, 2018
18. G7 Charlevoix, 2018
19. See ECOLEX at <https://www.ecolex.org/>
20. In this report the term 'laws' is used to describe any primary legislation (e.g. acts or statutes adopted by national parliaments/legislatures) and secondary legislation (e.g. regulations, statutory orders, by-laws) made under primary legislation. Laws adopted at the sub-national level have not been considered within the scope of this report.
21. Covers both laws and implementing regulations.
22. For example, <http://www.ncsl.org/research/environment-and-natural-resources/plastic-bag-legislation.aspx>
23. Andorra, Decree of May 17, 2017, Regulation on the reduction of consumption of plastic bags
24. Luxembourg Law of 21 March 2017 related to packaging and packaging waste
25. e.g. China, Notice of the General Office of State Council on Restricting the Production, Sale and Use of Plastic Shopping Bags* (SC GO G [2008] No.72) and Estonia Packaging Act (2004) subsection 5 (2) 1)
26. Countries which included vague requirements or exemptions or significant limitations to the characteristics of EPR rules included Venezuela, China, Cuba, Laos, Chad, Brazil, Cameroon, Central African Republic, Zambia
27. The report uses the term Extended Producer Responsibility elements or characteristics as there is no overarching consensus globally of what extended producer responsibility legislation must include. For Example elements of EPR were found in Brazil and Zambia but they were so limited that Brazil and Zambia were not included within the report as having a national EPR system.
28. http://ec.europa.eu/environment/waste/plastic_waste.htm
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