THE PLASTICS LANDSCAPE: REGULATIONS, POLICIES AND INFLUENCERS
THE SIX PRINCIPLES

PREAMBLE TO THE PRINCIPLES

As institutional investors, we have a duty to act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that environmental, social, and governance (ESG) issues can affect the performance of investment portfolios (to varying degrees across companies, sectors, regions, asset classes and through time). We also recognise that applying these Principles may better align investors with broader objectives of society. Therefore, where consistent with our fiduciary responsibilities, we commit to the following:

1. We will incorporate ESG issues into investment analysis and decision-making processes.

2. We will be active owners and incorporate ESG issues into our ownership policies and practices.

3. We will seek appropriate disclosure on ESG issues by the entities in which we invest.

4. We will promote acceptance and implementation of the Principles within the investment industry.

5. We will work together to enhance our effectiveness in implementing the Principles.

6. We will each report on our activities and progress towards implementing the Principles.

PRI’s MISSION

We believe that an economically efficient, sustainable global financial system is a necessity for long-term value creation. Such a system will reward long-term, responsible investment and benefit the environment and society as a whole.

The PRI will work to achieve this sustainable global financial system by encouraging adoption of the Principles and collaboration on their implementation; by fostering good governance, integrity and accountability; and by addressing obstacles to a sustainable financial system that lie within market practices, structures and regulation.

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## ACKNOWLEDGEMENTS

The PRI would like to thank members of the PRI Plastic Investor Working Group for their contributions throughout the research process.
Several countries, regions and cities have recently introduced regulations and legislations focused on plastic. These are primarily aimed at use and disposal to reduce consumption and improve waste management. Over 60 countries have introduced bans and levies on plastic packaging and single-use waste (see the PRI’s interactive tool on the global plastics supply chain).

Although there are currently no policies or regulations that directly target the primary production of plastics, companies involved in producing raw materials for plastics (including oil and gas companies) may be affected indirectly through policies which aim to boost plastic recycling and reduce fossil fuel dependence and greenhouse gas emissions.

Policies and regulations focused on the disposal stage of the plastics value chain, such as China’s ban on imported waste, have significantly impacted global waste management systems and the secondary market. Shifting norms around plastic use are also being influenced by global civil society movements such as the BBC’s Blue Planet series and the Ellen MacArthur Foundation’s New Plastics Economy initiative.

KEY FINDINGS

ABOUT THE PLASTICS LANDSCAPE SERIES

This is the third report in a series aimed at equipping investors with the information they need to understand plastic as a systemic issue, providing a technical overview of plastic and the plastic market, and exploring common concepts.

The series will help investors to identify where and how their portfolios might be exposed to plastic, enabling them to analyse relevant sectors and engage at the corporate and policy levels accordingly. The first report looked at the challenges and possible solutions, and the second looked at risks and opportunities along the plastics value chain.

This report explores the various plastic-related regulations coming into force at different stages of the value chain and highlights the types of movements that influence how plastic is regulated, managed and used.
INTRODUCTION

Plastic in the news has become a common occurrence, as global awareness about the material's polluting impact on the environment continues to intensify. Several influencers are impacting how plastic is regulated, managed and used throughout the plastic value chain, including:

- Consumer and NGO pressure on:
  - retailers, and designers and manufacturers of packaging
  - regulators for controls on certain plastics and products
- Political pressure and regulation at different stages of the plastic value chain
- Businesses engaging their supply chains
- Investors demanding evidence of policies and strategies to minimise risk and impacts associated with plastic (and solutions to those)

High-profile initiatives such as Sky Ocean Rescue1 and the Ellen MacArthur Foundation's New Plastics Economy initiative,2 as well as media coverage of programmes such as Blue Planet,3 have also brought the issue front and centre. They have also led research on the impacts of plastic pollution. In addition, collaborative initiatives between countries, regions, businesses and experts in the field have led to the implementation of regulations and policy frameworks, as well as voluntary action to tackle the plastic crisis (see Appendix).

While this report does not aim to analyse policies affecting plastics, investors can use the data to ascertain which regulations their portfolio companies may be exposed to in specific jurisdictions. The report should also be read in conjunction with the PRI's interactive tool on the global plastics supply chain. In addition, investors can use the data to identify countries that do not have related policies and regulations, indicating future areas of potential regulatory risk.

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3 BBC, 2019. Blue Planet II.
The number of regulations and legislation focused on plastic use and disposal has risen sharply, impacting companies across the value chain and driving change upstream and downstream. Only policies and regulations that have a direct impact on the plastic value chain (see figure 1), in terms of reducing production and consumption and for better waste management, are considered in this report. Other related regulations, such as on food safety contact and hazardous chemical use (REACH, the EU’s Registration, Evaluation, Authorisation and Restriction of Chemicals) are not included.

Figure 1: Overview of the plastic value chain

*Percentages represent the proportion of plastic produced for each market sector*
INTERNATIONAL LEVEL

Plastic is covered under various international fora. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (in this report covered in the section on disposal) now considers the trade of plastic waste. Within the Sustainable Development Goals, plastic falls under SDG 12, to: “Ensure sustainable consumption and production patterns”. Certain targets within this goal also align with the circular economy model, to: “Substantially reduce waste generation through prevention, reduction, recycling and reuse” by 2030.

The Paris Climate Agreement is also relevant given its target to limit the increase in global temperature to 1.5 degrees. Indeed, figures show that current trends related to plastic production and associated emissions would exceed the remaining carbon budget for industrial greenhouse gas emissions under a 2 degrees scenario – let alone a 1.5 degrees target.5

CIRCULAR ECONOMY LEVEL

Society needs to move away from the current linear “take, make and dispose” approach to producing and consuming plastic to one where materials are used, and their value maintained, for as long as possible – a circular economy.

In 2019, the EU Technical Expert Group on Sustainable Finance released a classification system, the Taxonomy,6 for environmentally-sustainable economic activities. The Taxonomy presents technical screening criteria for climate change mitigation objectives, adaptation objectives and “do no significant harm” to other environmental objectives in the legislative proposal. Relating directly to plastic, one of the environmental objectives is labelled as “transition to a circular economy, waste prevention and recycling”. This objective is currently only considered under “do no significant harm” by the mitigation and adaptation objectives. However, technical screening criteria for the objective is expected to be developed in the future, meaning business activities regarded as green in their contribution to the circular economy will be scrutinised.

The EU also has an Action Plan for the Circular Economy, launched in 2015,7 which considers product life cycles and encourages partnerships and collaboration across the value chain and sectors. Most member states have since developed their own national strategies, which have been adopted or are due to be implemented in line with the action plan. Regulatory actions include revised European legislation for waste management, adopted in 2018.8 These legislative changes set plastic recycling targets at 50 percent of plastic waste by 2025 and outline the minimum requirements of Extended Producer Responsibility (EPR) schemes (see the section on disposal for more information). These schemes “require producers of products to bear the financial and organisational responsibility for the management of the waste stage of a product’s life cycle including separate collection, sorting and treatment operations.”9

Plastic is also one of five priority sectors that led to the EU Strategy for Plastics in a Circular Economy, which aims to transform how plastics and plastic products are designed, produced, used and recycled. Among its targets is that all plastic packaging should be reusable or recyclable by 2030.

RAW MATERIALS

There are currently no policies or regulations that directly target raw materials for bioplastics, nor the oil, gas and chemical companies involved in producing fossil fuel-based plastics (besides hazardous chemical legislations such as REACH).10 However, these companies may be indirectly impacted through policies which aim to: 1) increase the amount of recycled plastics; 2) reduce dependence on fossil fuels; and 3) reduce greenhouse gas emissions from extraction and production. This may dampen demand for fossil fuel feedstock for plastics production as companies further down the value chain look to shift to alternatives (such as paper) or recycled material.

As governments increase their focus on achieving a circular economy (particularly in Europe and China), and work towards their commitments under the Paris Agreement, heads are turning to fossil fuel companies in terms of how they will transition to a low-carbon economy (see the PRI’s work on transition risk for oil and gas in a low-carbon world).

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4 United Nations, 2019. #Envision2030 Goal 12: Responsible Consumption and Production.
MANUFACTURE

Most reactive policies and regulations have focused on plastic packaging. Container and packaging designers and manufacturers are now under pressure to consider the composition and life cycle of their products. With the UK government consulting on a tax on plastic packaging made from less than 30 percent recycled content by 2022, manufacturers will be looking to source recycled content and incorporate this into packaging design.

In India, the Plastic Waste (Management and Handling) Rules 2011 phase out the manufacture and use of non-recyclable, multi-layered plastic. Some states in the country have banned the manufacture and use of specific types of plastic. In addition, manufacturers and producers of PET/PETE bottles are required to take back bottles and plastic waste under the aforementioned EPR (see more in section on EPR).

USE

The number of national and sub-national policies regulating single-use plastics has also risen dramatically. In the last four to five years, over 60 countries have introduced bans and levies to curb single-use plastic waste (see figure 2).

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Figure 2: Estimated number of new regulations on single-use plastic coming into force at a national level (globally).
Source: Anthesis (adapted from UN Environment, Single-Use Plastics A Roadmap for Sustainability)

Single-use plastic regulations

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Number of regulations on plastic bags, Styrofoam and other utensils that entered into force

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12 Madhya Pradesh Pollution Control Board 2016. Ministry of Environment, Forest and Climate Change Notification G.S.R 320(E).
**PLASTIC BAGS**

It is estimated that between one and five trillion plastic bags are consumed globally each year. The primary regulatory focus is typically on non-recyclable LDPE bags, such as those used to wrap fresh produce. The EU has defined lightweight bags as those with a thickness of up to 50 microns (0.05 millimetres).

Figure 3: Countries implementing a total ban on plastic bags, a taxation or a partial ban/taxation. Source: Anthesis (adapted from Reuters News and the Earth Day Network)
There are a range of regulations and fiscal incentives in place to reduce plastic bag use across jurisdictions. According to a UN report:15

- Africa is the continent with the most countries that have banned the production and use of plastic bags. Over half (58 percent) of the 25 countries that have introduced national bans on plastic bags started implementing the policies between 2014 and 2017.
- In North America, regulations have been introduced primarily at the state or city level. For example, lightweight plastic bags are banned in Montreal (Canada), and California and Hawaii (US).
- Some countries in Asia, such as Bangladesh, banned plastic bags over a decade ago. More recently, several countries have attempted to control the manufacture and use of plastic bags through levies. However, enforcement of regulations has in many cases been poor, with single-use plastic bags continuing to be widely used and mismanaged.

The EU is also encouraging member states to reduce lightweight plastic bag consumption to a maximum of 90 per person a year by end-2019, and to a maximum of 40 by end-2025.16 In the UK, over 7 billion bags were handed out by seven supermarkets in the year before a five pence taxation system was enforced,17 a figure which plummeted to some 500 million in the first six months after the charge was introduced. Figures show that in 2017/18 customers bought nearly a quarter fewer bags compared to 2016/17, demonstrating the longer-term impact of regulation on consumer behaviour.18

![Figure 4: National policies on plastic bags by continent. Source: Anthesis (adapted from UN Environment, Single-Use Plastics A Roadmap for Sustainability)](image-url)

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SINGLE-USE PLASTICS
Some governments have widened their regulatory focus to include other single-use plastics. For example:

- Costa Rica committed to eliminate single-use plastics by 2021.19
- Single-use items including cutlery, straws, cups and balloons will be banned in Mexico City by 2021.20
- US states Maine and New York City banned single-use Expanded Polystyrene in 2017.21, 22
- The EU will ban single-use plastic plates, cutlery, straws, balloon sticks and cotton buds by 2021. EU member states have also agreed to achieve a 90 percent collection target for plastic bottles by 2029. In addition, plastic bottles must be made from at least 25 percent recycled content by 2025, and 30 percent by 2030.23
- In 2018, the UK banned cosmetics and personal care products that contain microbeads.24
- Rottnest Island in Australia banned plastic drinking straws in 2019.25

DISPOSAL
There has been significant policy movement focused on global plastic disposal and waste management. This section covers the changes in policies to import plastic waste, as well as other policies aimed at addressing plastic waste.

CHINA’S BAN ON IMPORTED PLASTIC WASTE
The closing of China’s doors to imported plastic waste has brought the global waste management system crisis into focus, with the amount of material exported to China for treatment and reprocessing having soared in the past 15 years. In 2016, it was estimated that China imported two-thirds of global plastic waste.26 This was mostly mixed plastic and considered to be a low-quality recyclable waste stream. In July 2017, China told the World Trade Organisation that it would enforce stringent contamination standards for 24 imported recycled materials as of 1 March 2018.

The move, known as the Chinese National Sword, bans waste material including eight types of plastic and lowers the contamination tolerance threshold to 0.5 percent. Globally, many material recycling facilities are struggling to reach this standard. While the ban is primarily aimed at reducing foreign waste to help protect China’s environment and improve public health, it is also part of a strategy to boost domestic recycling capacity to 350 million tonnes (across various waste resources and including plastic) by 2020,27 and to help the country move towards a more circular economy. The short-term impact of this block on materials will likely cause a dramatic surge in demand for disposal services, such as incineration and landfill, in other markets.

Other countries in Southeast Asia are beginning to follow China's lead. Malaysia, Vietnam, the Philippines and Thailand, which increased their imports of plastic waste following China’s ban, are now also starting to ban low-quality imported plastic waste (materials that are unrecyclable) by setting higher quality standards.28

The Philippines returns waste shipping containers to Canada29
Canada exported 2,400 tonnes of waste, mislabelled as plastic for recycling, to the Philippines between 2013 and 2014. However, in 2016 the Philippines ruled this illegal and in 2019 shipped 69 containers back to Canada. This demonstrates how importing nations are acting to exert greater control over waste inflows.

With the waste export market slowly shrinking, governments are increasingly looking into EPR and deposit return schemes to reduce the amount of waste going to landfill or being incinerated. Germany, France, Estonia, Australia and South Africa are examples of where these approaches have driven producers to take a leading role in recycling bottles (particularly PET).

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20 World Economic Forum, 2019. Mexico City is banning single-use plastics.
22 CBS News, 2019. States declare war on Styrofoam — “People think it breaks down”
27 Xinhua.net, 2017. China to recycle 350 mln tonnes of waste resources by 2020
EXTENDED PRODUCER RESPONSIBILITY (EPR)
EPR legislation holds the producers of products responsible for any negative environmental externalities and associated costs. It incentivises manufacturers to design resource-efficient and low-impact products, and to facilitate effective end-of-life collection and treatment of collected products for reuse and recycling. While plastic waste is primarily governed by regulations focused on packaging, EPR legislation also exists for electronic and electrical equipment, bringing some plastic items under these rules as well. There are EPR policies in the US, Canada and the EU. More EPR policies are likely to come into force as states in India and other jurisdictions begin to adopt them.

DEPOSIT RETURN SCHEMES
The number of deposit return schemes is increasing globally, with current systems mostly applied to beverage packaging. The buyer incurs a surcharge when purchasing the product, which is refunded when they return the empty packaging to a collection point. If the empty container is not returned, the deposit is forfeited. The schemes are common in states in Australia and Canadian provinces, and have been implemented in over 10 US states. Some countries and states have implemented container deposit laws, but which are not yet in operation (e.g. Fiji, Guam, Turks & Caicos, Barbados, western Australia, and New South Wales).

BASEL CONVENTION
In 2019, changes were made to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (the Basel Convention), which aims to limit global trade in hazardous waste. Solid plastic waste, which was excluded from the convention originally, has been brought into scope and tighter controls will be imposed on importers and exporters. The underlying impact will be that only clean shipments of contamination-free plastic waste will be allowed between countries. However, there is no guidance on the quality threshold or enforcement activity by importing countries. Plastic exporters are now required to notify and obtain consent from importers for mixed plastic bales through the Prior Informed Consent procedure.
### APPENDIX

Examples of organisations and collaborative commitments impacting the plastics sector

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<td><strong>Global Plastic Platform</strong></td>
<td>UN Environment Assembly</td>
<td>Member states, businesses and third parties showcase and access information to support countries and cities that have made plastic reduction commitments. It facilitates the sharing of experiences, the establishment of new policies and inspiration for new commitments.</td>
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<td><strong>The New Plastic Economy Global Commitment</strong></td>
<td>Ellen MacArthur Foundation</td>
<td>Unites businesses, governments and other organisations globally behind a common vision and targets, to address plastic waste and pollution at their source.</td>
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<td><strong>Alliance to End Plastic Waste</strong></td>
<td>Alliance to End Plastic Waste</td>
<td>Cross-value chain group of global companies in North and South America, Europe, Asia, Southeast Asia, Africa and the Middle East that has committed over $1 billion. Goal is to invest $1.5 billion over the next five years to help end plastic waste in the environment.</td>
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<td><strong>Commonwealth Clean Ocean Alliance</strong></td>
<td>The Commonwealth</td>
<td>The UK, Ghana, Sri Lanka, New Zealand and Vanuatu are collaborating to tackle marine plastics in partnership with businesses and NGOs. Each country has pledged to ban microbeads in rinse-off cosmetics and personal care products, as well as to cut plastic bag use by 2021.</td>
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<tr>
<td><strong>Circulate Capital</strong></td>
<td>Circulate Capital</td>
<td>A $90 million US investment fund funded by companies including Coca-Cola, Unilever, P&amp;G, Danone and Dow, set up to combat marine plastic pollution in Asia.</td>
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<td><strong>#breakfreefromplastic</strong></td>
<td>#breakfreefromplastic</td>
<td>A global movement championing a future free from plastic pollution. Since its launch in September 2016, nearly 1,300 organisations globally have joined the movement to demand industry makes reductions in single-use plastics and to push for lasting solutions.</td>
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<tr>
<td><strong>The UK Plastics Pact</strong></td>
<td>Waste and Resources Action Programme (WRAP)</td>
<td>The first of a global network of agreements to address plastic waste on a voluntary basis (with others in France and Chile). WRAP sets out four targets for 2025 to address circularity and eliminate problematic or unnecessary single-use plastic.</td>
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**The Principles for Responsible Investment (PRI)**

The PRI works with its international network of signatories to put the six Principles for Responsible Investment into practice. Its goals are to understand the investment implications of environmental, social and governance (ESG) issues and to support signatories in integrating these issues into investment and ownership decisions. The PRI acts in the long-term interests of its signatories, of the financial markets and economies in which they operate and ultimately of the environment and society as a whole.

The six Principles for Responsible Investment are a voluntary and aspirational set of investment principles that offer a menu of possible actions for incorporating ESG issues into investment practice. The Principles were developed by investors, for investors. In implementing them, signatories contribute to developing a more sustainable global financial system.

More information: www.unpri.org

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**The PRI is an investor initiative in partnership with UNEP Finance Initiative and the UN Global Compact.**

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**United Nations Environment Programme Finance Initiative (UNEP FI)**

UNEP FI is a unique partnership between the United Nations Environment Programme (UNEP) and the global financial sector. UNEP FI works closely with over 200 financial institutions that are signatories to the UNEP FI Statement on Sustainable Development, and a range of partner organisations, to develop and promote linkages between sustainability and financial performance. Through peer-to-peer networks, research and training, UNEP FI carries out its mission to identify, promote, and realise the adoption of best environmental and sustainability practice at all levels of financial institution operations.

More information: www.unepfi.org

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**United Nations Global Compact**

The United Nations Global Compact is a call to companies everywhere to align their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption, and to take action in support of UN goals and issues embodied in the Sustainable Development Goals. The UN Global Compact is a leadership platform for the development, implementation and disclosure of responsible corporate practices. Launched in 2000, it is the largest corporate sustainability initiative in the world, with more than 8,800 companies and 4,000 non-business signatories based in over 160 countries, and more than 80 Local Networks.

More information: www.unglobalcompact.org