

# PLASTIC OVER SHOOT DAY

This is the day when the generation of plastic waste exceeds the capacity of waste management, leading to environmental pollution.

**July 28, 2023**

## 2023 report





Published by	EA – Environmental Action, Lausanne, Switzerland
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Citation Authors	<p>Plastic Overshoot Day – Report 2023, EA-Environmental Action 2023.</p> <p>Sarah Perreard (Corresponding author: <a href="mailto:sarah.perreard@e-a.earth">sarah.perreard@e-a.earth</a>)</p> <p>Dr Feiyi Li</p> <p>Dr Julien Boucher</p> <p>Adrienne Gaboury</p> <p>Noémie Voirin</p> <p>Martina Gallato</p> <p>Riccardo Puppi</p>
Designed by	Downstairs – <a href="http://www.downstairs.design">www.downstairs.design</a>
Photography	©Unsplash: Michael Dziedzic, Martin de Arriba, Caleb Gregory
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# What is Plastic Overshoot day?

## Plastic... is... everywhere

And the amount of plastic produced is expected to double in the coming years, which will triple the volume of plastic pollution.

The underlying issues with plastic pollution are the excessive production and use of plastic across the planet and the lack of sufficient waste management systems to properly process plastic after it has been used. This results in a significant amount of plastic ending up in the environment every year, with a staggering amount ultimately finding its way into the ocean.

Every year, there is a day when the amount of plastic waste surpasses the capability of waste management systems to effectively manage it. This day is known as Plastic Overshoot Day, and in 2023, the global community will reach this critical point on July 28<sup>th</sup>.

As with any complex issue, understanding the problem is the first step towards implementing solutions. By tracking Plastic Overshoot Day, we can identify the magnitude of the plastic waste problem and hold governments, businesses, and individuals accountable for their contribution to the problem.

There are reasons for optimism, namely, with the global community having recently agreed to negotiate terms for a Plastics Treaty aimed at tackling plastic waste challenges worldwide.

It's time for action. Together, we can work towards reducing plastic consumption, improving waste management systems, promoting sustainable alternatives, and advocating for policy changes to combat plastic pollution and protect our oceans and the environment for future generations.

# Behind the project

EA – Environmental Action is a Swiss-based team of sustainability leaders committed to help organizations & people create sustainable change by developing strong science, meaningful methodologies & actionable plans.



The team of dedicated sustainability leaders from the Swiss-based Association EA – Environmental Action is committed to conducting innovative research and providing consulting services for local and global organizations, while leveraging their non-profit arm to address significant environmental issues.

Plastic Overshoot Day emerged out of EA's dedication to investing profits and talents into impactful initiatives.

This project is a natural extension of EA's extensive research and publications in the plastics field, and is built upon the methodology of PLASTEAX, the pioneering database offering comprehensive plastic waste management data at both country and polymer-specific levels.

As with all EA and PLASTEAX efforts, Plastic Overshoot Day is committed to transparency, raising awareness about plastic pollution, and driving sustainable solutions to tackle a pressing global challenge.

**Contact us: [contact@plasticovershoot.earth](mailto:contact@plasticovershoot.earth)**

# Foreword

Nearly three years ago, the « Breaking the Plastic Wave » analysis showed that the projected growth in plastic production and consumption would result in a tripling of plastic pollution in our oceans by 2040. The study also presented solutions that could reduce this volume by over 80 percent through the implementation of available technologies, provided that key decision-makers are willing to make comprehensive changes to existing systems.

With unwavering determination, we present the 2023 Plastic Overshoot Day Report, urging all stakeholders, including governments, corporations, and individuals, to become aware of their plastic pollution footprint and take decisive actions that align the amount of waste introduced to the market with existing waste management capacities.

Plastic Overshoot Day signifies the critical point when our collective demand for plastic surpasses the capabilities of waste management systems to handle it effectively. This year, on July 28<sup>th</sup>, we stand at this pivotal moment, acknowledging the pressing challenges brought about by excessive plastic production, utilization, and inadequate waste management practices. The consequences reverberate across ecosystems, with plastic pollution inundating our oceans, threatening wildlife, and endangering human health.

Furthermore, the production and processing of plastic involve the use of additives, which can have harmful impacts on ecosystems and human health if they leak into the environment due to waste mismanagement. It is anticipated that in 2023, plastic waste mismanagement will result in the release of about 420,000 tons of chemical additives into waterways, exacerbating the ecological consequences of plastic pollution.

In line with the call for corporate responsibility, we acknowledge the importance of transparency and disclosure. While corporate disclosure mechanisms transparently reporting the volumes of mismanaged waste resulting from their operations in each country may be a substantial undertaking, it is a powerful tool to drive change and accountability. Such disclosures enable stakeholders to evaluate corporate performance, inspire best practices, and facilitate dialogue on how to reduce plastic pollution collectively.

While it may seem daunting, the journey towards a plastic-pollution-free future is one we must embark on together. Governments, corporations, and individuals each have a crucial role to play. By measuring plastic pollution footprints, aligning waste with existing capacities, and embracing transparent reporting, corporations can lead the change

towards sustainable production practices and inspire others to follow suit.

Furthermore, the recent establishment of the Intergovernmental Negotiating Committee (INC) to develop an international legally binding instrument on plastic pollution, including in the marine environment, underscores the importance of government action and global cooperation in addressing this urgent issue. We call for an ambitious Treaty and strongly urge all governments to endorse and ratify it.

As we delve into the insights and recommendations presented in this report, let us be reminded of our shared responsibility to protect our oceans, safeguard our environment, and ensure a thriving planet for future generations. Together, through collaborative efforts and decisive actions, we can overcome the plastic pollution crisis and build a future where Plastic Overshoot Days are but a distant memory.

We invite you to immerse yourself in this report, engage in the conversation, and join us in our unwavering commitment to combat plastic pollution.



# Acknowledgement

The Plastic Overshoot Day team expresses its heartfelt gratitude to all individuals who have contributed in any capacity to the development and writing of this report. We extend special appreciation to the remarkable team at EA – Environmental Action, with a special mention to Feiyi Li, for their invaluable efforts in providing and analyzing the essential plastic data required for this report.

We would also like to extend our thanks to the diligent Downstairs team, whose exceptional design expertise has beautifully crafted the visual elements of this report. Their attention to detail and creativity have greatly enhanced its overall presentation.

Your contributions have played a pivotal role in bringing this report to fruition, and we are sincerely grateful for your dedication and hard work.

# Glossary

## **Collection rate**

Ratio between the plastic waste collected and generated. Waste Collected includes: Waste export, Recycling, Properly disposed and Improperly disposed.

## **Export**

Export of any plastic by the country, in any form, be it primary polymer, plastic product, or plastic embedded in a product. It does not include export of plastic waste.

## **Import**

Import of any plastic into the country, in any form, be it primary polymer, plastic product, or plastic embedded in a product. It does not include import of plastic waste.

## **Improperly disposed**

Waste fraction that is disposed in a waste management system where leakage is expected to occur, such as a dumpsite or an unsanitary landfill. A dumpsite is a particular area where large quantities of waste are deliberately disposed in an uncontrolled manner and can be the result of both the formal and informal sectors. A landfill is considered as unsanitary when waste management quality standards are not met, thus creating the potential for leakage.

## **Mismanaged**

The sum of uncollected and improperly managed waste.

## **Mismanaged Waste Index (MWI)**

The sum of uncollected and improperly

managed waste, divided by the waste generated.

## **Leakage**

Plastic that is released into rivers, lakes and oceans.

## **Production**

Polymer production either from primary virgin source or secondary source (recycled plastic from previous year). It does not include the manufacturing of final products in the country, as this would lead to double counting.

## **Properly disposed**

Waste fraction that is disposed in a waste management system where no leakage is expected to occur, such as an incineration facility or a sanitary landfill.

## **Incineration**

« Proper » incineration is technology that destroys waste through burning while respecting technical requirements and operating conditions to avoid environmental pollution.

## **Sanitary landfill**

Particular area where large quantities of waste are deliberately disposed in a controlled manner (e.g. waste being covered on a daily basis, as well as the bottom of the landfill designed in a way to prevent waste from leaching out).

**Domestic recycling**

Recycling of waste collected in the country. This does not include recycling of imported waste or waste collected for recycling in the country that is exported abroad.

**Uncollected (excl. littering)**

Waste fraction that is not collected, either by the formal or the informal sector. It excludes littering.

**Littering**

The act of dropping rubbish on the ground in public areas.

**Waste export**

Plastic waste collected in the country and exported abroad. It does not include the re-export of imported waste.

**Waste generated**

Country domestic plastic waste generation computed as: Production + Import – Export – Added stock.

**Waste import**

Import of plastic waste from other countries.

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## Notations

EXP	Exported waste [kt]
$Y_R$	Recycling yield of imported waste [%]
$R_{CAP}$	Recycling capacity of partner country [kt]
$R_{EXP}$	Exported waste recycled in partner country [kt]
MW	Mismanaged waste (of exporter country) [kt]
$MW_{DOM}$	Mismanaged domestic waste [kt]
$MW_{EXP}$	Mismanaged exported waste [kt]
MWI	Mismanaged waste index of exporter country [%]
$MWI_{IMP}$	Mismanaged waste index of partner country [%]
$COL_{EXP}$	Exported waste collected in partner country [kt]

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# 01. Introductory note

This report provides a full assessment of the contributors to plastic pollution worldwide. It is based on the baseline year 2023, in which global production of short-life plastic is expected to reach 159 Megatons (Mt). This volume of plastic production and the resulting waste was analyzed and distributed across global economies, with countries being categorized into archetypes according to the volumes that pass through their borders. Ten archetypes have been established: The Transactors, The Self-Sustainers, The Strugglers, The Overloaders, The Toxic Exporters, The Waste Savors, The Waste Sponges, The Selective Exporters, The Exporting Polluters, and The Small-Scale Inward Polluters.

The intention of this research and categorization is not to criticise any country's waste management practices, but rather, to increase the level of knowledge and awareness of the issue, and in doing so, to pave the way towards better management of plastic in global systems.

Having been designed to fill key knowledge gaps, the report provides new and important insights to enable better prioritisation of research and actions around macro- and micro-plastic leakage, and plastic pollution in general.

Recommendations for systemic solutions are also incorporated into this report, with a particular focus on actions to be taken at the country level.

## **DISCLAIMER:**

The information and data in this report regarding plastic overshoot day, including estimates on additives leakage and microplastic leakage, are provided for informational purposes only. We have made reasonable efforts to ensure accuracy; however, it is important to note that the estimates for additives and microplastics may be less detailed. These estimates are approximations and should not replace comprehensive studies. This report does not constitute legal or professional advice and should not be relied upon as such. The authors, publishers, and distributors of this report are not liable for errors or consequences arising from its use. Please note that the field of plastic waste management is constantly evolving, and new research may impact the understanding of the issues discussed. Readers are encouraged to stay informed about the latest developments. By accessing and using this report, you agree to the above disclaimer and accept that the authors, publishers, and distributors are not responsible for any claims or losses resulting from its use.

## 02. Summary

Plastic Overshoot Day marks the point when the amount of plastic waste generated exceeds the world's capacity to manage it, resulting in environmental pollution. In 2023, the global Plastic Overshoot Day is projected to occur on July 28<sup>th</sup>. Each country has its own Plastic Overshoot Day, which is determined by the amount of plastic waste generated and the country's capacity to manage it.

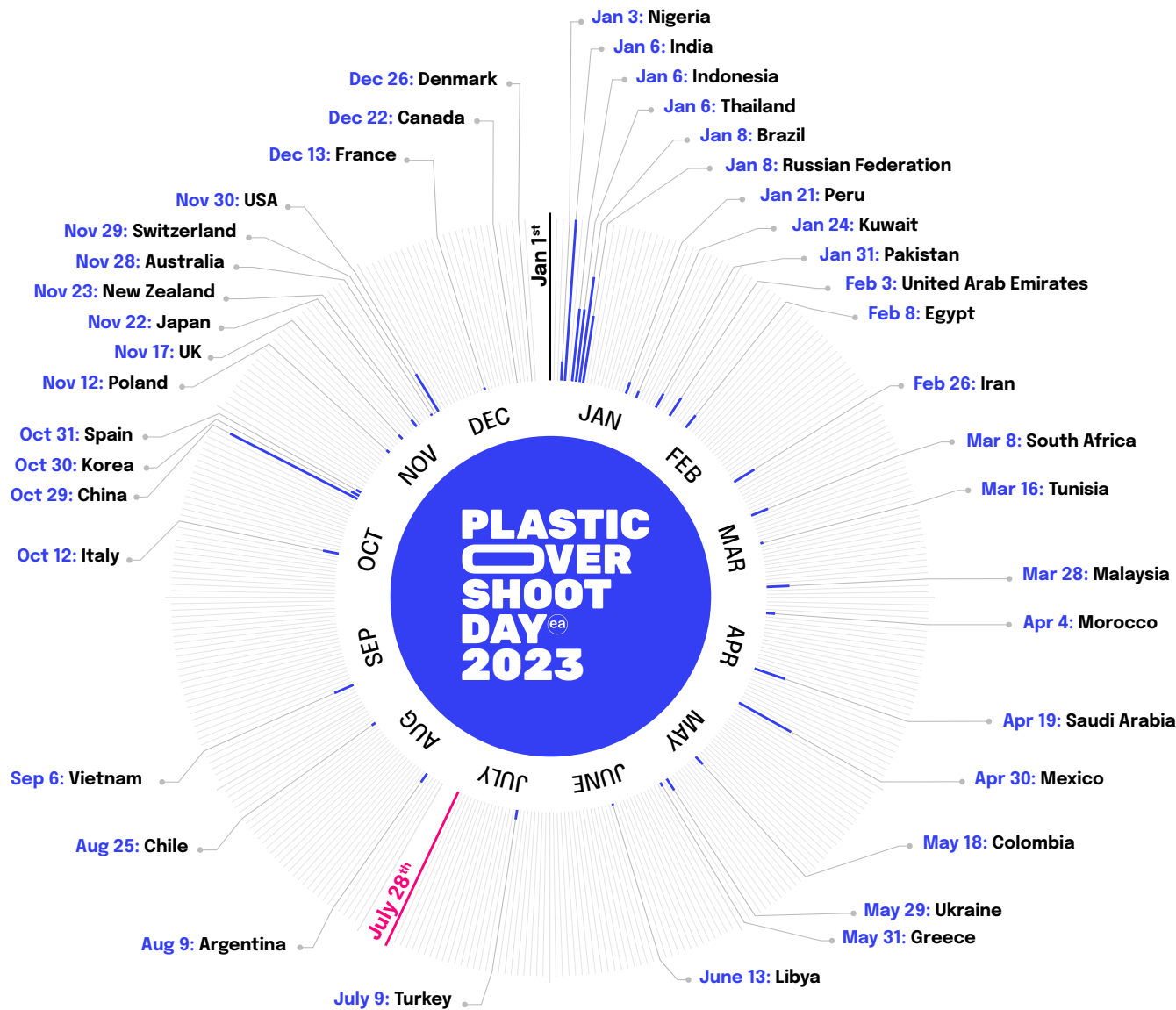
To facilitate targeted and effective solutions, ten country archetypes have been established, enabling the profiling of countries based on factors such as local per capita plastic consumption, the import and export volumes of waste, and the country's waste treatment capabilities. By considering these archetypes, we can present recommendations tailored to each country's unique circumstances.

These recommendations aim to empower countries to improve their Overshoot Day and mitigate plastic pollution. They

include strategies such as reducing plastic consumption and usage, promoting circular economy models such as repair and reuse initiatives, implementing robust waste management policies like extended producer responsibilities (EPR), enhancing local waste management infrastructure, and ceasing the import of plastic waste from other countries. By adopting the measures relevant to their situation, countries can make significant progress in combatting plastic pollution.

Every country has its own Plastic Overshoot Day, corresponding to the day at which a country's waste management capacity is fully exhausted. Beyond this day, all

waste generated by the country becomes mismanaged, ultimately finding its way into the natural environment.



## How to Interpret Details for Your Country?

### Month 00: Country

Country's Overshoot Date as established by the Mismanaged Waste Index

Indicator of total mismanaged plastic waste

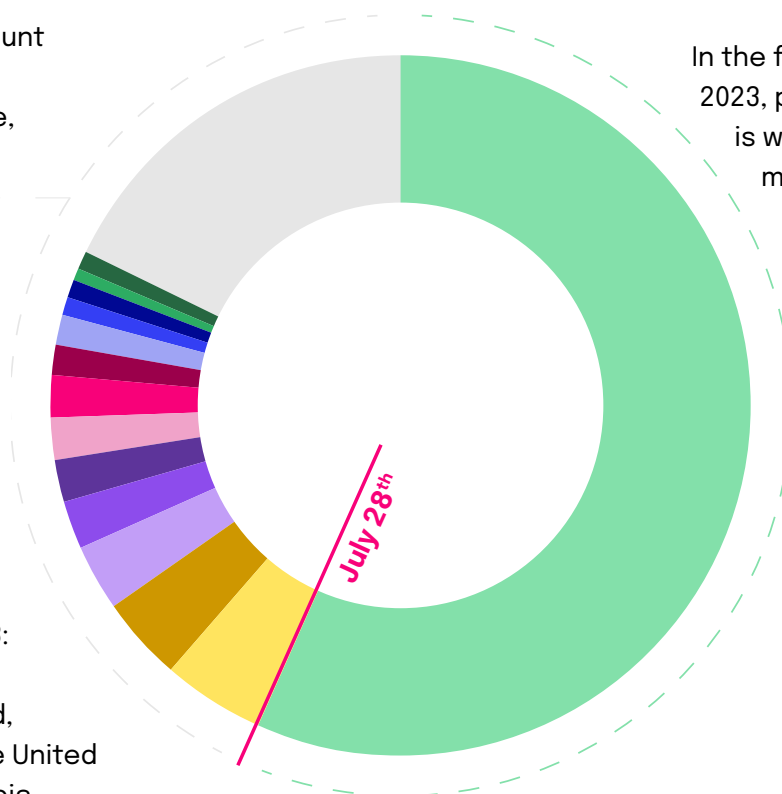
## Contribution to Plastic Overshoot Day by country

Each country contributes to a portion of the 157 days of plastic overshoot that will occur in 2023. Countries contribute in different proportions according to the total amount of plastic waste they mismanage, with this amount then translated into a number of days.

175 countries account for 41% of the total mismanaged waste, or 64,63 days.

12 countries are responsible for 52% of the world's mismanaged plastic waste, or 145,2 days of overshoot for 2023: India, China, Brazil, Indonesia, Thailand, Russia, Mexico, the United States, Saudi Arabia, Democratic Republic of Congo, Iran and Kazakhstan.

In the first 208 days of 2023, plastic waste is well-managed, meaning it is collected and then either recycled, incinerated or deposited in a sanitary landfill.



207.37 Days of Proper Plastic Waste Management in 2023

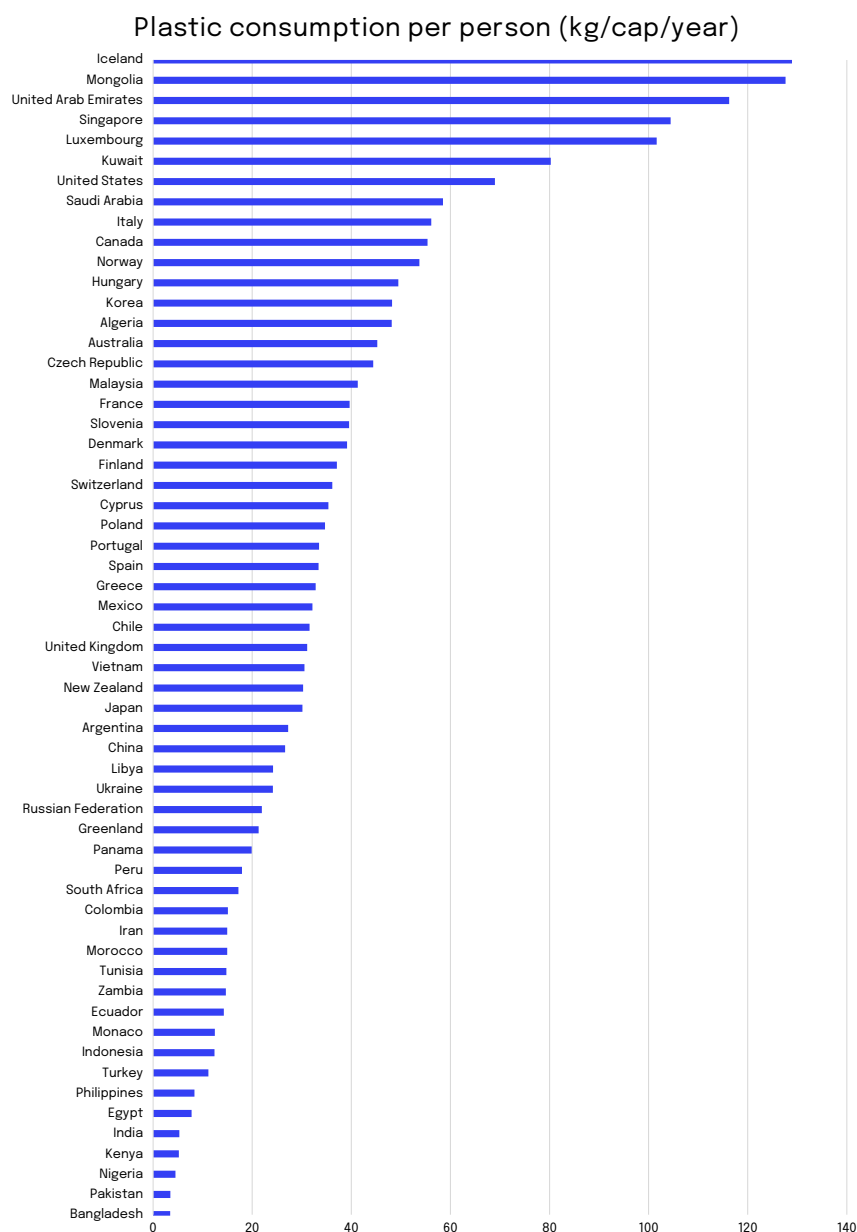
### Allocation of 2023 Global Overshoot Days:

India (16.8 days)	EU 27 (5.9 days)
China (15 days)	USA (4.6 days)
Brazil (11.1 days)	Saudi Arabia (3.4 days)
Thailand (7.6 days)	Congo Dem. Rep. (2.6 days)
Indonesia (7.6 days)	Kazakhstan (2.5 days)
Russian Fed. (7.1 days)	Iran (2.5 days)
Mexico (6.3 days)	Other countries (64.63 days)

## 03. Executive summary

### A little (or big) story of plastic pollution...

Plastic consumption varies among countries and individuals, with some consuming more plastic per capita than others. This disparity in plastic consumption leads to varying levels of plastic waste generation across different regions.

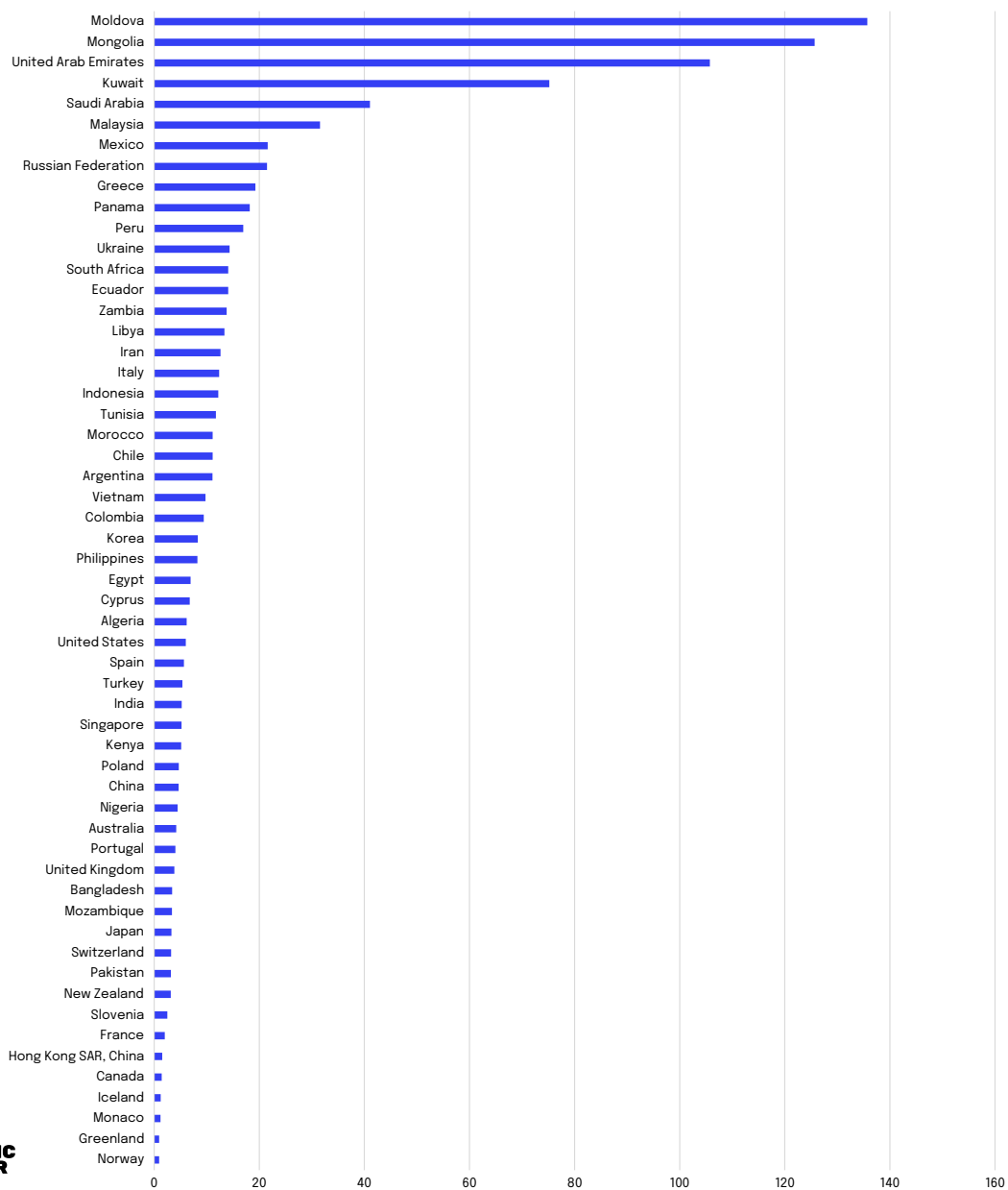


People living in Iceland are the top generators of plastic waste, with a yearly consumption of 128.9 kg per person. This is 50 times higher than the yearly consumption per person in Bangladesh who consumes 2.59 kg. The global average consumption of plastic per person per year is 20.9 kg, with a total worldwide

consumption of 158,943,925 tons per year.

Moreover, countries have varying capacities to effectively manage the plastic waste they generate, with some having more advanced waste management systems than others.

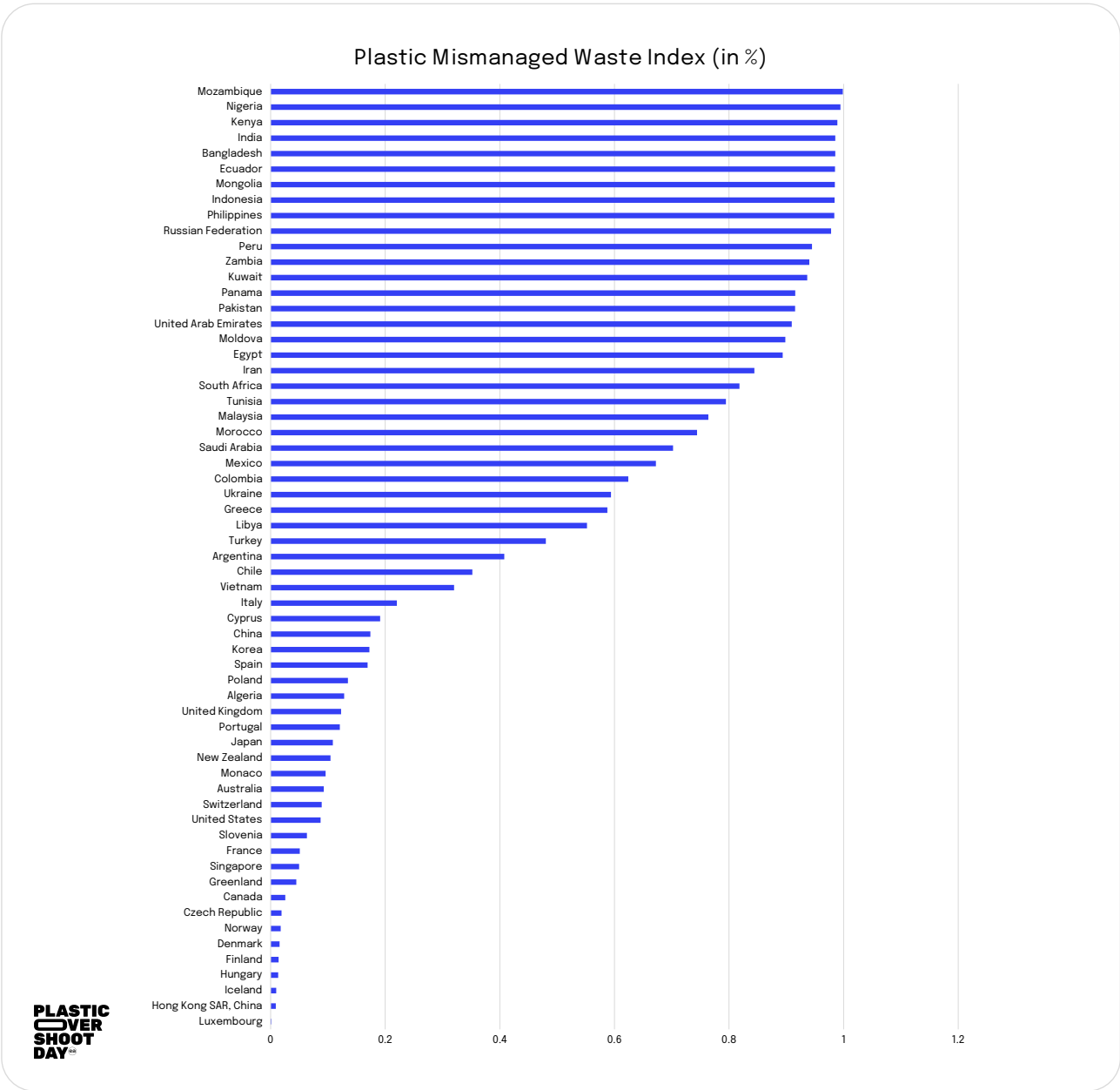
Mismanaged plastic waste per person (kg/cap/year)



Moldova has the highest per capita amount of mismanaged plastic waste, with a projected 135 kg of plastic per person that will be mismanaged in 2023. This is 144 times higher than the kg of plastic per person that Norway is projected to mismanage this year. The global average mismanaged plastic waste per person is projected to be 8.8 kg in 2023. In total, an additional 68,642,999 tons of plastic is expected to be mismanaged this year and end up in the environment.

The imbalance between the volumes of plastic that are produced and used, and the world's ability to manage those volumes when they become waste, is the root cause of plastic pollution.

The mismatch of waste management capacity versus plastic consumption is called the MWI, the mismanaged waste index.



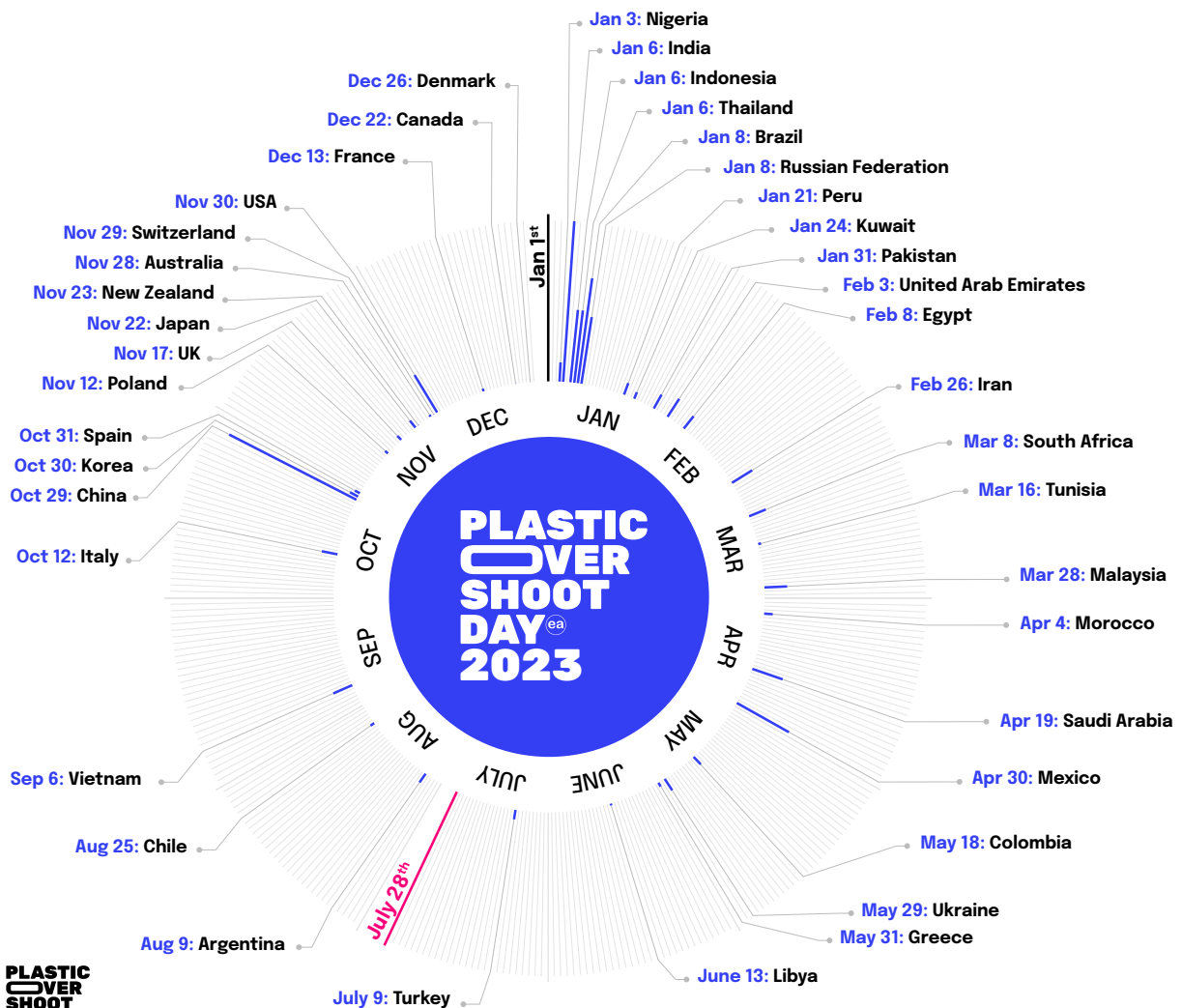
Mozambique has the highest mismanaged waste index, with a record 99.8% of generated waste being mismanaged. On the other hand, Luxemburg has the lowest mismanaged waste index, with only 0.9 % of its plastic waste being mismanaged.

Globally in 2023, a staggering 43 % of plastic waste will be mismanaged at the end of its life, with the risk of this waste ending up in oceans.

Plastic Overshoot Day marks the point when the amount of plastic waste generated exceeds the world's capacity to manage it, resulting in environmental pollution. In 2023, the global Plastic Overshoot Day is projected to occur on July 28<sup>th</sup>. Each country has its own Plastic Overshoot Day, which is determined by the amount of plastic waste generated and the country's capacity to manage it.

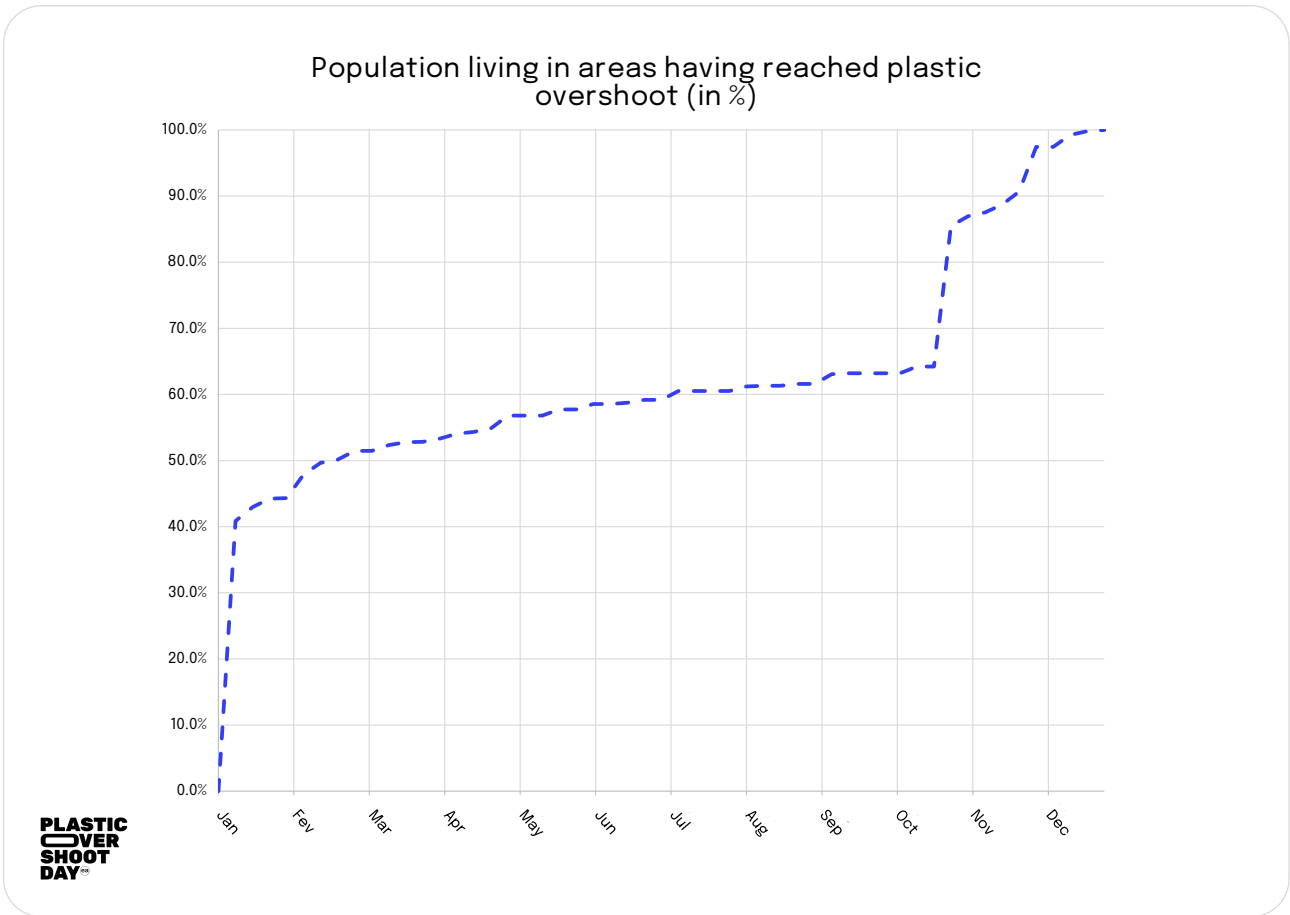
## Overshoot Day by Country

The date when a country's waste management capacity has been reached.

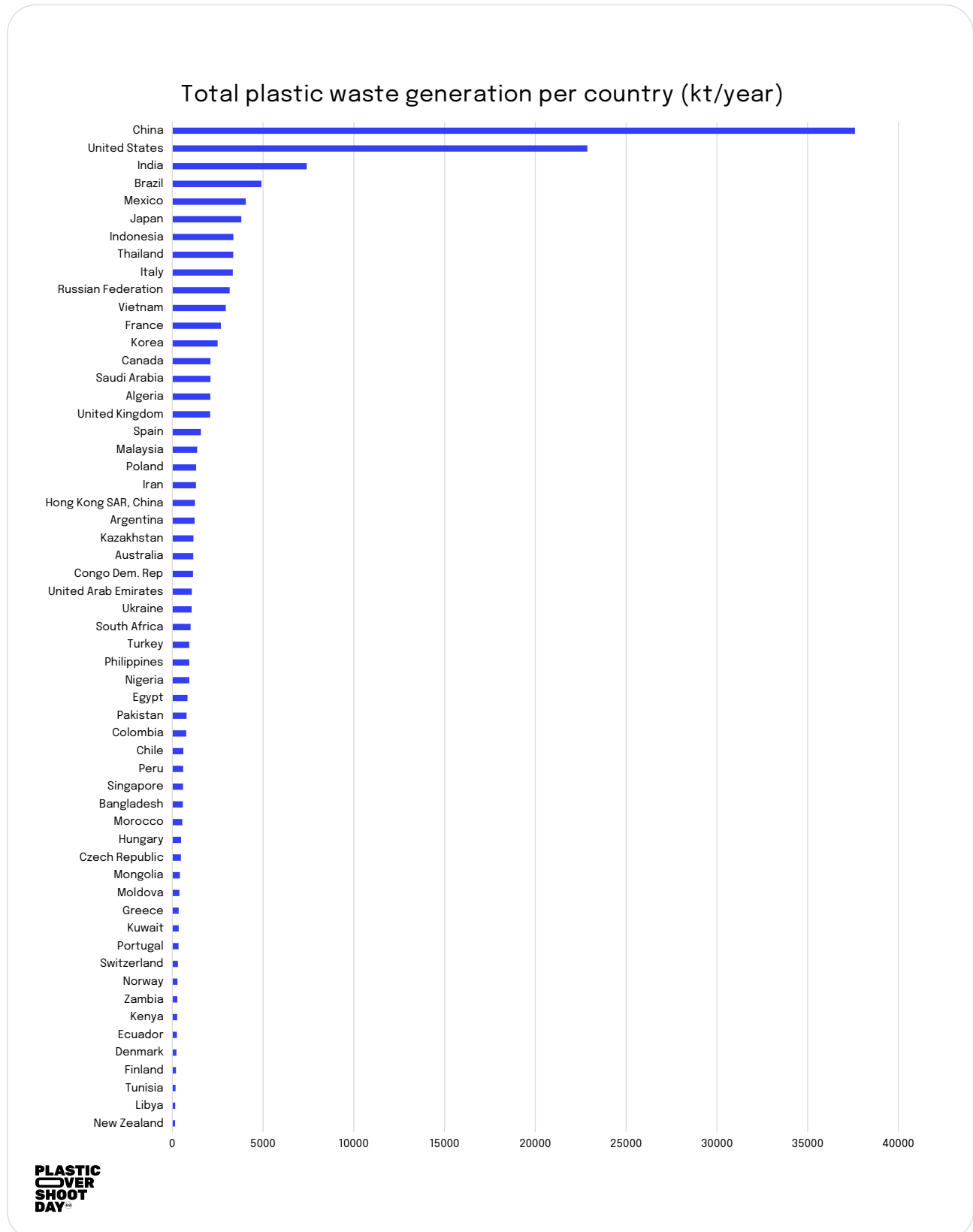


By 8 January 2023, it is estimated that 40 % of the world's population will be living in areas where plastic waste has already exceeded the capacity to manage it. This number is

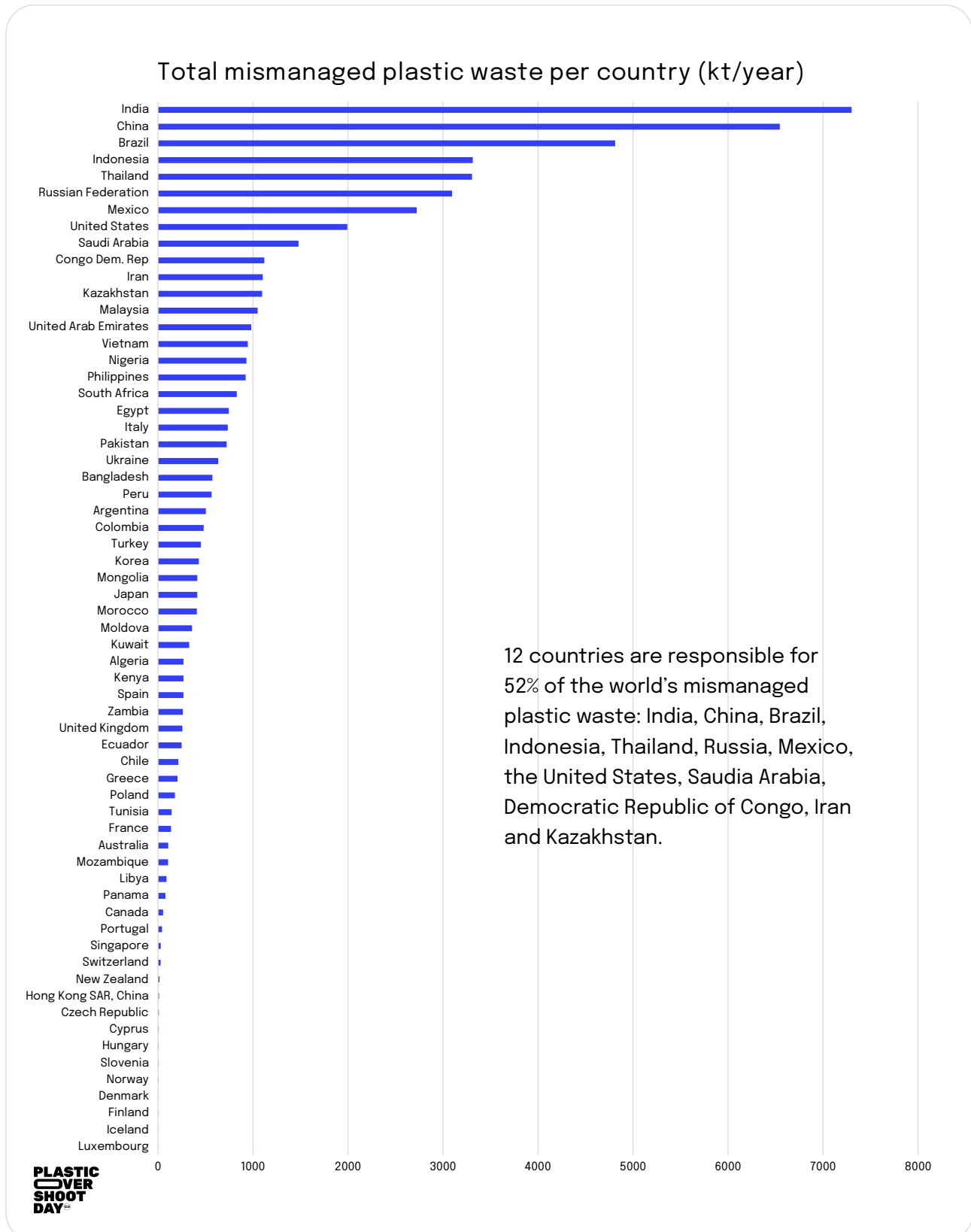
expected to rise to 60 % by 28 July of the same year, indicating a pressing need for action to address the plastic waste crisis.



Given their varying sizes and populations, countries generate different levels of plastic waste...



... and different amounts of mismanaged plastic waste.



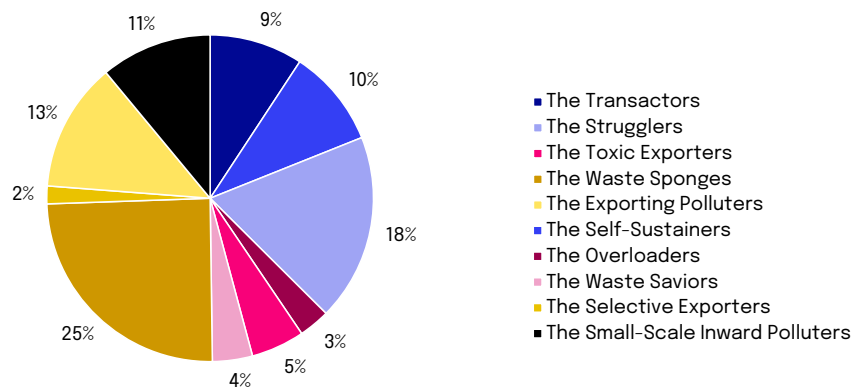
## 04. Detailed results

### Summary table

Country archetypes	Consumption level	Waste management effectiveness	Import Volumes	Export Volumes
The Transactors	High	Average to good	High	High
The Self-Sustainers	Medium to high	Average to good	-	Low
The Strugglers	Medium to high	Bad	-	Low
The Overloaders	High	Average to good	Low to medium	Medium to high
The Toxic Exporters	High	Bad	Low to medium	Medium to high
The Waste Saviors	Medium	Average to good	High	-
The Waste Sponges	Low to medium	Bad	High	-
The Selective Exporters	Low to medium	Average to good	-	Medium
The Exporting Polluters	Low to medium	Bad	-	Medium
The Small-Scale Inward Polluters	Low	Bad	-	Low

This graph shows the share of the different archetypes for the year 2023.

Share of countries within each archetype (in %)



## Archetypes criteria

Plastic Overshoot Day looked to establish categories, or archetypes of countries, so that countries could be profiled and relevant and meaningful solutions could be presented and explored.

The following criteria were used to profile the countries:

- The volumes of waste generation per capita consumed in the country,
- The volume of waste that the country imports from other countries, proportional to their domestic waste production
- The portion of domestic waste that the country exports to other countries
- The level of waste mismanagement for the plastic consumed in the country and treated both domestically and exported.

The below table summarizes the thresholds applied for each of the criteria.

	Waste generation	Import	Export
<b>High</b>	> 50 kg / cap / year	Import / domestic > 0.1 %	Export / domestic > 4 %
<b>Medium</b>	15-50 kg / cap / year	-	-
<b>Low</b>	< 15 kg / cap / year	Import / domestic < 0.1 %	Export / domestic < 0.1 %

	Mismanagement level
<b>Bad</b>	> 30 %
<b>Average</b>	10-30 %
<b>Good</b>	< 10 %

## Country archetypes & country examples

Plastic Overshoot Day aims to offer insights into interventions that countries can use to reduce overall plastic waste and in particular, mitigate mismanaged plastic waste, therefore prolonging the country's overshoot date.

Each country has unique realities related to plastic pollution – including plastic usage levels, waste management infrastructure, and relevant policies – Plastic Overshoot Day looked to establish categories so that countries could be profiled and relevant and meaningful solutions could be presented and explored.

10 Country Archetypes have been defined, which represent countries based on:

- The amount of plastic the population produces and uses,
- How well plastic is managed when it becomes waste,
- How much plastic waste the country exports,
- How much plastic waste the country imports and,
- How well imported waste is managed once it arrives in the country.

Within this section, we aim to provide a comprehensive overview of each archetype, accompanied by an illustrative example of a country associated with that particular archetype.

Country archetype	Country example
<b>The Transactors</b>	France
<b>The Self-Sustainers</b>	Hong Kong SAR, China
<b>The Strugglers</b>	Qatar
<b>The Overloaders</b>	United States of America
<b>The Toxic Exporters</b>	United Arab Emirates
<b>The Waste Saviors</b>	Costa Rica
<b>The Waste Sponges</b>	Ecuador
<b>The Selective Exporters</b>	Japan
<b>The Exporting Polluters</b>	Cambodia
<b>The Small-Scale Inward Polluters</b>	Iran

Country archetype

# The Transactors

Consumption Levels: **High**

Waste Management Effectiveness: **Good**

Import Volumes: **High**

Export Volumes: **High**

## Description

The Transactors are countries with very high rates of plastic consumption and use. Their waste tends to be well-managed, although most do not yet have extensive circular systems around plastics. The Transactors are wealthy countries, mostly Western, along with Singapore. They export a lot of their waste but also import a lot of waste from neighboring countries. Through this exchange of waste with their trade partners they have been able to optimize their waste management practices, resulting in a low volume of waste ending up mismanaged and low risk of plastic leakage into the environment.

## Countries

Australia, Austria, Belgium, Canada, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Singapore, Slovenia, Switzerland, United Kingdom

**Collectively, these countries account for 4.65 days out of the total 157 days of plastic overshoot projected to occur in 2023.**

### RECOMMENDATION 1

#### Reduce plastic production and use.

The primary way to mitigate plastic pollution is to mitigate the amount of plastic used by the population. As a high consumption country, reducing plastic consumption is critical for the Transactors. A secondary benefit of lower consumption levels would be that their existing waste management capacity could assist others who currently lack the infrastructure to properly manage their waste.

### RECOMMENDATION 2

#### Become circular.

Plastic waste typically exists in a linear system of « take, make, dispose ». Plastic manufacturing and management must transition to more circular systems to address the plastic pollution crisis. Effective solutions must include a move away from the linear status quo to circular business models based on reuse and repair.

Example

# France

Overshoot Day, or the date when the amount of plastic waste outweighs this country's ability to manage it, with environmental pollution occurring as a result, is:

**13 December 2023**

Plastic Overshoot Day is determined by a country's Mismanaged Waste Index\*, which in this case is...

**5.08%**

In 2023, the world will experience **157 days** of plastic overshoot. This country will contribute to this overshoot by

**7.5 hours**

The Mismanaged Waste Index, or MWI, is

**very low**

The expected mismanaged waste in 2023 will be

**136 239 tons of plastic**

The country's annual per capita plastic consumption is

**39.7 kg / capita / year**

which makes it

**above average per capita plastic consumption**

The total plastic consumption in this country is

**2 680 095 tons of plastic waste**

The amount of plastic waste EXPORTED by the country is

**314 320 tons of plastic**

which represents

**11.73 % of its total waste**

This relative export is considered

**relatively high**

The amount of plastic waste IMPORTED by the country is

**101 040 tons of plastic**

which represents

**3.77 % of its total**

This relative import is considered

**relatively high**

As per the Plastic Overshoot Day profiles, this country is categorized with:

## The Transactors

*The Transactors are countries with very high rates of plastic consumption and use. Their waste tends to be well-managed, although most do not yet have extensive circular systems around plastics. The Transactors are wealthy countries, mostly Western, along with Singapore. They export a lot of their waste but also import a lot of waste from neighboring countries. This waste trade has enabled them to optimize their waste management practices.*

Recommendations for driving necessary changes to mitigate plastic pollution and postpone the Overshoot Day in this country:

**Reduce plastic consumption.**

**Become circular.**



Plastic pollution is caused not only by the improper disposal of plastic products but also by the release of primary microplastics from sources such as tire abrasion, shedding of textile fibers, and paint. It is expected that in 2023 this country will be responsible for releasing into the environment an average of

**60 757 tons of microplastic released into waterways.**



In addition, plastic production and processing involve the use of additives, which can have harmful impacts on ecosystems and human health if they leak into the environment due to waste mismanagement. It is anticipated that in 2023, plastic waste mismanagement in this country will result in the release into waterways of

**831 tons of pollution from chemical additives.**

Country archetype

# The Self-Sustainers

Consumption Levels: **Medium to high**

Waste Management Effectiveness: **Average to good**

Import Volumes: -

Export Volumes: **Low**

## Description

The Self-Sustainers are medium to high consumers of plastic that are able to manage their waste internally and do not rely heavily on exporting it to other countries. They use sustainable waste management practices and invest in infrastructure to handle their waste domestically.

## Countries

Algeria, Antigua and Barbuda, Bahamas, Bermuda, British Virgin Islands, Channel Islands, China, Gibraltar, Greenland, Grenada, Guam, Guyana, Hong Kong, Isle of Man, Monaco, Puerto Rico, Seychelles, St. Kitts and Nevis, St. Lucia, St. Martin (French part), Taiwan, Virgin Islands (U.S.)

**Collectively, these countries account for 17.72 days out of the total 157 days of plastic overshoot projected to occur in 2023.**

### RECOMMENDATION 1

#### Reduce plastic production and use.

The primary way to mitigate plastic pollution is to mitigate the amount of plastic used by the population. As a high consumption country, reducing plastic consumption is critical for the Self-Sustainers. A secondary benefit of lower consumption levels would be that their existing waste management capacity could assist others who currently lack the infrastructure to properly manage their waste.

### RECOMMENDATION 2

#### Become circular.

Plastic waste typically exists in a linear system of « take, make, dispose ». Plastic manufacturing and management must transition to more circular systems to address the plastic pollution crisis. Effective solutions must include a move away from the linear status quo to circular business models based on reuse and repair.

Example

# Hong Kong SAR, China

Overshoot Day, or the date when the amount of plastic waste outweighs this country's ability to manage it, with environmental pollution occurring as a result, is:

**31 December 2023**

Plastic Overshoot Day is determined by a country's Mismanaged Waste Index\*, which in this case is...

**0.91%**

In 2023, the world will experience **157 days** of plastic overshoot. This country will contribute to this overshoot by

**0.6 hours**

The Mismanaged Waste Index, or MWI, is

**very low**

The expected mismanaged waste in 2023 will be

**11 410 tons of plastic**

The country's annual per capita plastic consumption is

**167 kg / capita / year**

which makes it

**amongst the highest per capita plastic consumption in the world**

The total plastic consumption in this country is

**1 249 560 tons of plastic waste**

The amount of plastic waste EXPORTED by the country is

**0 tons of plastic**

which represents

**0 % of its total waste**

This relative export is considered

**relatively low**

The amount of plastic waste IMPORTED by the country is

**0 tons of plastic**

which represents

**0 % of its total**

This relative import is considered

**relatively low**

As per the Plastic Overshoot Day profiles, this country is categorized with:

## The Self-Sustainers

*The Self-Sustainers are medium to high consumers of plastic that are able to manage their waste internally and do not rely heavily on exporting it to other countries. They use sustainable waste management practices and invest in infrastructure to handle their waste domestically.*

Recommendations for driving necessary changes to mitigate plastic pollution - and postpone the Overshoot Day in this country:

**Reduce plastic consumption.**

**Become circular.**



Plastic pollution is caused not only by the improper disposal of plastic products but also by the release of primary microplastics from sources such as tire abrasion, shedding of textile fibers, and paint. It is expected that in 2023 this country will be responsible for releasing into the environment an average of

**11 017 tons of microplastic released into waterways.**



In addition, plastic production and processing involve the use of additives, which can have harmful impacts on ecosystems and human health if they leak into the environment due to waste mismanagement. It is anticipated that in 2023, plastic waste mismanagement in this country will result in the release into waterways of

**70 tons of pollution from chemical additives.**

Country archetype

# The Strugglers

Consumption Levels: **Medium to high**

Waste Management Effectiveness: **Bad**

Import Volumes: **-**

Export Volumes: **Low**

## Description

The Strugglers are medium to high consumers of plastic that export little of their waste to other countries. Domestically they face significant challenges in managing their waste and may be struggling with issues like inadequate infrastructure, insufficient resources, or a lack of proper waste management regulations and policies.

## Countries

Albania, American Samoa, Andorra, Aruba, Bhutan, Cabo Verde, Cayman Islands, Central African Republic, Cuba, Curacao, Dominican Republic, Equatorial Guinea, Eritrea, Faeroe Islands, Haiti, Iraq, Kiribati, Kosovo, Libya, Liechtenstein, Macao SAR, Marshall Islands, Mauritania, Micronesia, Nauru, New Caledonia, Northern Mariana Islands, Oman, Palau, Panama, Qatar, Samoa, San Marino, Solomon Islands, South Sudan, St. Vincent and the Grenadines, Syrian Arab Republic, Tonga, Trinidad and Tobago, Tuvalu, Venezuela, West Bank and Gaza

**Collectively, these countries account for 12.11 days out of the total 157 days of plastic overshoot projected to occur in 2023.**

### RECOMMENDATION 1

#### Reduce plastic consumption.

Reducing plastic usage would directly impact waste mismanagement levels. The amount of mismanaged waste would correspondingly be expected to drop.

### RECOMMENDATION 2

#### Invest in waste management policies including Extended Producer Responsibility,

which would fund the development of the waste management infrastructure that is currently lacking.

Example

# Qatar

Overshoot Day, or the date when the amount of plastic waste outweighs this country's ability to manage it, with environmental pollution occurring as a result, is:

## 24 March 2023

Plastic Overshoot Day is determined by a country's Mismanaged Waste Index\*, which in this case is...

## 77.34%

In 2023, the world will experience **157 days** of plastic overshoot. This country will contribute to this overshoot by

## 7 hours

The Mismanaged Waste Index, or MWI, is

**high**

The expected mismanaged waste in 2023 will be

**128 401 tons of plastic**

The country's annual per capita plastic consumption is

**60.1 kg / capita / year**

which makes it

**amongst the highest per capita plastic consumption in the world**

The total plastic consumption in this country is

**166 011 tons of plastic waste**

The amount of plastic waste EXPORTED by the country is

**0 tons of plastic**

which represents

**0 % of its total waste**

This relative export is considered

**relatively low**

The amount of plastic waste IMPORTED by the country is

**0 tons of plastic**

which represents

**0 % of its total**

This relative import is considered

**relatively low**

As per the Plastic Overshoot Day profiles, this country is categorized with:

### The Strugglers

*The Strugglers are medium to high consumers of plastic that export little of their waste to other countries. Domestically they face significant challenges in managing their waste and may be struggling with issues like inadequate infrastructure, insufficient resources, or a lack of proper waste management regulations and policies.*

Recommendations for driving necessary changes to mitigate plastic pollution and postpone the Overshoot Day in this country:

**Reduce plastic consumption.**

**Invest in waste management policies like EPR.**



Plastic pollution is caused not only by the improper disposal of plastic products but also by the release of primary microplastics from sources such as tire abrasion, shedding of textile fibers, and paint. It is expected that in 2023 this country will be responsible for releasing into the environment an average of

**3 399 tons of microplastic released into waterways.**



In addition, plastic production and processing involve the use of additives, which can have harmful impacts on ecosystems and human health if they leak into the environment due to waste mismanagement. It is anticipated that in 2023, plastic waste mismanagement in this country will result in the release into waterways of

**783 tons of pollution from chemical additives.**

Country archetype

# The Overloaders

Consumption Levels: **High**

Waste Management Effectiveness: **Average to Good**

Import Volumes: **-**

Export Volumes: **High**

## Description

The Overloaders are high consumers of plastic, who export a significant amount of their waste. Their waste is well managed. Unlike the similarly high-consuming Transactors, the Overloaders do not import waste in exchange for the waste they export. This imbalance therefore overloads the waste management systems of other countries, likely creating mismanagement issues in locales where Overloaders send their plastic waste.

## Countries

Barbados, Iceland, Israel, South Korea, Malta, Spain, United States

**Collectively, these countries account for 4.68 days out of the total 157 days of plastic overshoot projected to occur in 2023.**

### RECOMMENDATION 1

#### Reduce plastic production and use.

The primary way to mitigate plastic pollution is to mitigate the amount of plastic used by the population. As a high consumption country, reducing plastic consumption is critical for the Overloaders.

### RECOMMENDATION 2

#### Develop local waste management infrastructure.

Further developing their domestic waste management infrastructure would allow the Overloaders to treat more of their waste locally, thus reducing the burden placed on other countries.

### RECOMMENDATION 3

#### Become circular.

Plastic waste typically exists in a linear system of « take, make, dispose ». Plastic manufacturing and management must transition to more circular systems to address the plastic pollution crisis. Effective solutions must include a move away from the linear status quo to circular business models based on reuse and repair.

Example

# United States of America

Overshoot Day, or the date when the amount of plastic waste outweighs this country's ability to manage it, with environmental pollution occurring as a result, is:

**30 November 2023**

Plastic Overshoot Day is determined by a country's Mismanaged Waste Index\*, which in this case is...

**8.71%**

In 2023, the world will experience **157 days** of plastic overshoot. This country will contribute to this overshoot by

**4.6 day**

The Mismanaged Waste Index, or MWI, is

**very low**

The expected mismanaged waste in 2023 will be

**1992 144 tons of plastic**

The country's annual per capita plastic consumption is

**69 kg / capita / year**

which makes it

**amongst the highest per capita plastic consumption in the world**

The total plastic consumption in this country is

**22 867 246 tons of plastic waste**

The amount of plastic waste EXPORTED by the country is

**380 350 tons of plastic**

which represents

**1.66 % of its total waste**

This relative export is considered

**relatively medium**

The amount of plastic waste IMPORTED by the country is

**264 760 tons of plastic**

which represents

**1.16 % of its total**

This relative import is considered

**relatively high**

As per the Plastic Overshoot Day profiles, this country is categorized with:

## The Overloaders

*The Overloaders are high consumers of plastic, who export a significant amount of their waste. Their waste is well managed. Unlike the similarly high-consuming Transactors, the Overloaders do not import waste in exchange for the waste they export. This imbalance therefore overloads the waste management systems of other countries, likely creating mismanagement issues in locales where Overloaders send their plastic waste.*

Recommendations for driving necessary changes to mitigate plastic pollution and postpone the Overshoot Day in this country:

**Reduce plastic consumption.**

**Develop local waste management infrastructure**

**Become circular.**



Plastic pollution is caused not only by the improper disposal of plastic products but also by the release of primary microplastics from sources such as tire abrasion, shedding of textile fibers, and paint. It is expected that in 2023 this country will be responsible for releasing into the environment an average of

**254 667 tons of microplastic released into waterways.**



In addition, plastic production and processing involve the use of additives, which can have harmful impacts on ecosystems and human health if they leak into the environment due to waste mismanagement. It is anticipated that in 2023, plastic waste mismanagement in this country will result in the release into waterways of

**12 152 tons of pollution from chemical additives.**

Country archetype

# The Toxic Exporters

Consumption Levels: **High**

Waste Management Effectiveness: **Bad**

Import Volumes: **High**

Export Volumes: **-**

## Description

The Toxic Exporters are high consumers of plastic, with waste that is mismanaged at high levels, typically after it has been exported. These countries are significant participants in the global waste trade and often the Toxic Exporters export their waste to places that do not have proper waste management infrastructure. Plastic pollution in many countries is impacted by waste that was mismanaged after being received from Toxic Exporters.

## Countries

Belarus, Brunei, Kazakhstan, Kuwait, Malaysia, Moldova, Mongolia, Montenegro, Saudi Arabia, Thailand, United Arab Emirates, Uruguay

**Collectively, these countries account for 19.06 days out of the total 157 days of plastic overshoot projected to occur in 2023.**

### RECOMMENDATION 1

#### Reduce plastic production and use.

The primary way to mitigate plastic pollution is to mitigate the amount of plastic used by the population. As a high consumption country, reducing plastic consumption is critical for the Toxic Exporters.

### RECOMMENDATION 2

#### Develop local waste management infrastructure.

Further developing their domestic waste management infrastructure would allow the Toxic Exporters to treat more of their waste locally, thus reducing the burden placed on other countries.

### RECOMMENDATION 3

#### Become circular.

Plastic waste typically exists in a linear system of « take, make, dispose ». Plastic manufacturing and management must transition to more circular systems to address the plastic pollution crisis. Effective solutions must include a move away from the linear status quo to circular business models based on reuse and repair.

Example

# United Arab Emirates

Overshoot Day, or the date when the amount of plastic waste outweighs this country's ability to manage it, with environmental pollution occurring as a result, is:

**03 February 2023**

Plastic Overshoot Day is determined by a country's Mismanaged Waste Index\*, which in this case is...

**90.94%**

In 2023, the world will experience **157 days** of plastic overshoot. This country will contribute to this overshoot by

**2.2 day**

The Mismanaged Waste Index, or MWI, is

**very high**

The expected mismanaged waste in 2023 will be

**981 877 tons of plastic**

The country's annual per capita plastic consumption is

**116.3 kg / capita / year**

which makes it

**amongst the highest per capita plastic consumption in the world**

The total plastic consumption in this country is

**1 079 752 tons of plastic waste**

The amount of plastic waste EXPORTED by the country is

**13 250 tons of plastic**

which represents

**1.23 % of its total waste**

This relative export is considered

**relatively medium**

The amount of plastic waste IMPORTED by the country is

**9 300 tons of plastic**

which represents

**0.86 % of its total**

This relative import is considered

**relatively high**

As per the Plastic Overshoot Day profiles, this country is categorized with:

## The Toxic Exporters

*The Toxic Exporters are high consumers of plastic, with waste that is mismanaged at high levels, typically after it has been exported. These countries are significant participants in the global waste trade and often the Toxic Exporters export their waste to places that do not have proper waste management infrastructure. Plastic pollution in many countries is impacted by waste that was mismanaged after being received from Toxic Exporters.*

Recommendations for driving necessary changes to mitigate plastic pollution and postpone the Overshoot Day in this country:

**Reduce plastic consumption.**

**Develop local waste management infrastructure.**

**Become circular.**



Plastic pollution is caused not only by the improper disposal of plastic products but also by the release of primary microplastics from sources such as tire abrasion, shedding of textile fibers, and paint. It is expected that in 2023 this country will be responsible for releasing into the environment an average of

**8 572 tons of microplastic released into waterways.**



In addition, plastic production and processing involve the use of additives, which can have harmful impacts on ecosystems and human health if they leak into the environment due to waste mismanagement. It is anticipated that in 2023, plastic waste mismanagement in this country will result in the release into waterways of

**5 989 tons of pollution from chemical additives.**

Country archetype

# The Waste Savors

Consumption Levels: **Medium**

Waste Management Effectiveness: **Average to Good**

Import Volumes: **High**

Export Volumes: **-**

## Description

The Waste Savors have moderate plastic consumption levels and manage their waste relatively well. These countries have an overall positive influence on the global waste crisis, assuming responsibility for managing waste from other countries in addition to their own.

## Countries

Costa Rica, Croatia, Estonia, Hungary, Latvia, Lithuania, New Zealand, Slovak Republic, Sweden

**Collectively, these countries account for 0.31 day out of the total 157 days of plastic overshoot projected to occur in 2023.**

### RECOMMENDATION 1

#### Reduce plastic production and use.

The primary way to mitigate plastic pollution is to mitigate the amount of plastic used by the population. As a high consumption country, reducing plastic consumption is critical for the Waste Savors. A secondary benefit of lower consumption levels would be that their existing waste management capacity could assist others who currently lack the infrastructure to properly manage their waste.

### RECOMMENDATION 2

#### Become circular.

Plastic waste typically exists in a linear system of «take, make, dispose.» Plastic manufacturing and management must transition to more circular systems to address the plastic pollution crisis. Effective solutions must include a move away from the linear status quo to circular business models based on reuse and repair.

Example

# Costa Rica

Overshoot Day, or the date when the amount of plastic waste outweighs this country's ability to manage it, with environmental pollution occurring as a result, is:

**14 October 2023**

Plastic Overshoot Day is determined by a country's Mismanaged Waste Index\*, which in this case is...

**21.53%**

In 2023, the world will experience **157 days** of plastic overshoot. This country will contribute to this overshoot by

**1.9 hours**

The Mismanaged Waste Index, or MWI, is

**low**

The expected mismanaged waste in 2023 will be

**34 582 tons of plastic**

The country's annual per capita plastic consumption is

**31.3 kg / capita / year**

which makes it

**above average per capita plastic consumption**

The total plastic consumption in this country is

**160 600 tons of plastic waste**

The amount of plastic waste EXPORTED by the country is

**22 730 tons of plastic**

which represents

**14.15 % of its total waste**

This relative export is considered

**relatively high**

The amount of plastic waste IMPORTED by the country is

**970 tons of plastic**

which represents

**0.6 % of its total**

This relative import is considered

**relatively high**

As per the Plastic Overshoot Day profiles, this country is categorized with:

## The Waste Saviors

*The Waste Saviors have moderate plastic consumption levels, and manage their waste relatively well. These countries have an overall positive influence on the global waste crisis, assuming responsibility for managing waste from other countries in addition to their own.*

Recommendations for driving necessary changes to mitigate plastic pollution and postpone the Overshoot Day in this country:

**Reduce plastic consumption.**

**Become circular.**



Plastic pollution is caused not only by the improper disposal of plastic products but also by the release of primary microplastics from sources such as tire abrasion, shedding of textile fibers, and paint. It is expected that in 2023 this country will be responsible for releasing into the environment an average of

**1 696 tons of microplastic released into waterways.**



In addition, plastic production and processing involve the use of additives, which can have harmful impacts on ecosystems and human health if they leak into the environment due to waste mismanagement. It is anticipated that in 2023, plastic waste mismanagement in this country will result in the release into waterways of

**211 tons of pollution from chemical additives.**

Country archetype

# The Waste Sponges

Consumption Levels: **Low to medium**

Waste Management Effectiveness: **Bad**

Import Volumes: **High**

Export Volumes: **-**

## Description

The Waste Sponges have a low consumption of plastic yet a high level of plastic pollution arising from it. Waste Sponges are making efforts to address the global waste crisis absorbing waste from other countries but are struggling to manage their own waste in addition to waste from other countries.

## Countries

Afghanistan, Armenia, Azerbaijan, Bangladesh, Benin, Botswana, Bulgaria, Chile, Côte d'Ivoire, Ecuador, Egypt, El Salvador, Eswatini, Ghana, Greece, Guatemala, Guinea, Honduras, India, Indonesia, Lao PDR, Lebanon, Macedonia, Malawi, Mali, Mexico, Morocco, Mozambique, Myanmar, Namibia, Nicaragua, Nigeria, Pakistan, Paraguay, Peru, Philippines, Romania, Russian Federation, Serbia, South Africa, Tajikistan, Tanzania, Turkey, Ukraine, Uzbekistan, Vietnam

**Collectively, these countries account for 66.86 days out of the total 157 days of plastic overshoot projected to occur in 2023.**

### RECOMMENDATION 1

#### Stop importing waste.

To limit pollution levels in their country, the Waste Sponges should reduce or stop importing waste from other countries. The current import levels exceed the levels that can be handled by the local waste management infrastructures.

### RECOMMENDATION 2

#### Invest in waste management policies including Extended Producer Responsibility,

which would fund the development of the waste management infrastructure that is currently lacking.

Example

# Ecuador

Overshoot Day, or the date when the amount of plastic waste outweighs this country's ability to manage it, with environmental pollution occurring as a result, is:

**06 January 2023**

Plastic Overshoot Day is determined by a country's Mismanaged Waste Index\*, which in this case is...

**98.50%**

In 2023, the world will experience **157 days** of plastic overshoot. This country will contribute to this overshoot by

**13.6 hours**

The Mismanaged Waste Index, or MWI, is

**very high**

The expected mismanaged waste in 2023 will be

**247 512 tons of plastic**

The country's annual per capita plastic consumption is

**14.3 kg / capita / year**

which makes it

**below average per capita plastic consumption**

The total plastic consumption in this country is

**251 270 tons of plastic waste**

The amount of plastic waste EXPORTED by the country is

**6 400 tons of plastic**

which represents

**0.8 % of its total waste**

This relative export is considered

**relatively medium**

The amount of plastic waste IMPORTED by the country is

**7 600 tons of plastic**

which represents

**0.42 % of its total**

This relative import is considered

**relatively high**

As per the Plastic Overshoot Day profiles, this country is categorized with:

## The Waste Sponges

*The Waste Sponges have a low consumption of plastic yet a high level of plastic pollution arising from it. Waste Sponges are making efforts to address the global waste crisis absorbing waste from other countries, but are struggling to manage their own waste in addition to waste from other countries.*

Recommendations for driving necessary changes to mitigate plastic pollution and postpone the Overshoot Day in this country:

**Stop importing waste.**

**Invest in waste management policies like EPR.**



Plastic pollution is caused not only by the improper disposal of plastic products but also by the release of primary microplastics from sources such as tire abrasion, shedding of textile fibers, and paint. It is expected that in 2023 this country will be responsible for releasing into the environment an average of

**4 630 tons of microplastic released into waterways.**



In addition, plastic production and processing involve the use of additives, which can have harmful impacts on ecosystems and human health if they leak into the environment due to waste mismanagement. It is anticipated that in 2023, plastic waste mismanagement in this country will result in the release into waterways of

**1 510 tons of pollution from chemical additives.**

Country archetype

# The Selective Exporters

Consumption Levels: **Low to medium**

Waste Management Effectiveness: **Average to good**

Import Volumes: -

Export Volumes: **Medium**

## Description

The Selective Exporters have a low or medium consumption of plastic, export some of it abroad and treat the rest locally, with average to good waste management practices.

## Countries

Bahrain, Dominica, Japan, Mauritius

**Collectively, these countries account for 0.98 day out of the total 157 days of plastic overshoot projected to occur in 2023.**

### RECOMMENDATION 1

**Further develop local waste management infrastructure.**

This would allow the country to treat more of its waste locally, thus reducing the burden it puts on other countries.

### RECOMMENDATION 2

**Become circular.**

Plastic waste is currently still part of a linear system of « take, make, dispose ». Systems must become circular for the plastic pollution crisis to improve, a shift to business models based on reuse and repair is a key aspect of the solution.

### RECOMMENDATION 3

**Invest in waste management policies** including Extended Producer Responsibilities which would enable to fund the development of additional waste management infrastructures.

Example

# Japan

Overshoot Day, or the date when the amount of plastic waste outweighs this country's ability to manage it, with environmental pollution occurring as a result, is:

**22 November 2023**

Plastic Overshoot Day is determined by a country's Mismanaged Waste Index\*, which in this case is...

**10.87%**

In 2023, the world will experience **157 days** of plastic overshoot. This country will contribute to this overshoot by

**22.7 hours**

The Mismanaged Waste Index, or MWI, is

**very low**

The expected mismanaged waste in 2023 will be

**413 770 tons of plastic**

The country's annual per capita plastic consumption is

**30.2 kg / capita / year**

which makes it

**above average per capita plastic consumption**

The total plastic consumption in this country is

**3 806 805 tons of plastic waste**

The amount of plastic waste EXPORTED by the country is

**675 660 tons of plastic**

which represents

**17.75 % of its total waste**

This relative export is considered

**relatively high**

The amount of plastic waste IMPORTED by the country is

**2 540 tons of plastic**

which represents

**0.07 % of its total**

This relative import is considered

**relatively low**

As per the Plastic Overshoot Day profiles, this country is categorized with:

### The Selective Exporters

*The Selective Exporters have a low or medium consumption of plastic, export some of it abroad and treat the rest locally, with an overall low waste mismanagement issue.*

Recommendations for driving necessary changes to mitigate plastic pollution and postpone the Overshoot Day in this country:

**Develop local waste management infrastructure.  
Become circular.**



Plastic pollution is caused not only by the improper disposal of plastic products but also by the release of primary microplastics from sources such as tire abrasion, shedding of textile fibers, and paint. It is expected that in 2023 this country will be responsible for releasing into the environment an average of

**172 872 tons of microplastic released into waterways.**



In addition, plastic production and processing involve the use of additives, which can have harmful impacts on ecosystems and human health if they leak into the environment due to waste mismanagement. It is anticipated that in 2023, plastic waste mismanagement in this country will result in the release into waterways of

**2 524 tons of pollution from chemical additives.**

Country archetype

# The Exporting Polluters

Consumption Levels: **Low to medium**

Waste Management Effectiveness: **Bad**

Import Volumes: –

Export Volumes: **Medium**

## Description

The Exporting Polluters have a low to medium plastic consumption levels. A notable amount of their waste is exported with the rest being managed locally. These countries do not effectively manage their waste and negative environmental impacts result both domestically and in the countries receiving The Exporting Polluters' waste.

## Countries

Angola, Argentina, Belize, Bolivia, Bosnia and Herzegovina, Brazil, Burkina Faso, Burundi, Cambodia, Colombia, Ethiopia, Fiji, French Polynesia, Georgia, Jamaica, Jordan, Kenya, Kyrgyz Republic, Madagascar, Maldives, Nepal, Rwanda, Senegal, Sri Lanka, Togo, Tunisia, Uganda, Zambia, Zimbabwe  
**Collectively, these countries account for 22.95 days out of the total 157 days of plastic overshoot projected to occur in 2023.**

### RECOMMENDATION 1

#### Reduce plastic consumption.

Reducing its consumption of plastic would have direct impacts over their waste mismanagement levels that would drop proportionally.

### RECOMMENDATION 2

#### Develop local waste management infrastructure.

Further developing their domestic waste management infrastructure would allow the Exporting Polluters to treat more of their waste locally, thus reducing the burden placed on other countries.

### RECOMMENDATION 3

Invest in waste management policies including Extended Producer Responsibility, which would fund the development of the waste management infrastructure that is currently lacking.

Example

# Cambodia

Overshoot Day, or the date when the amount of plastic waste outweighs this country's ability to manage it, with environmental pollution occurring as a result, is:

**30 January 2023**

Plastic Overshoot Day is determined by a country's Mismanaged Waste Index\*, which in this case is...

**91.89%**

In 2023, the world will experience **157 days** of plastic overshoot. This country will contribute to this overshoot by

**4.7 hours**

The Mismanaged Waste Index, or MWI, is

**very high**

The expected mismanaged waste in 2023 will be

**86 055 tons of plastic**

The country's annual per capita plastic consumption is

**5.7 kg / capita / year**

which makes it

**amongst the lowest per capita plastic consumption in the world**

The total plastic consumption in this country is

**93 654 tons of plastic waste**

The amount of plastic waste EXPORTED by the country is

**8 070 tons of plastic**

which represents

**8.61 % of its total waste**

This relative export is considered

**relatively high**

The amount of plastic waste IMPORTED by the country is

**0 tons of plastic**

which represents

**0 % of its total**

This relative import is considered

**relatively low**

As per the Plastic Overshoot Day profiles, this country is categorized with:

## The Exporting Polluters

*The Exporting Polluters have a low to medium plastic consumption levels. A notable amount of their waste is exported with the rest being managed locally. These countries do not effectively manage their waste and negative environmental impacts result both domestically and in the countries receiving The Exporting Polluters' waste.*

Recommendations for driving necessary changes to mitigate plastic pollution and postpone the Overshoot Day in this country:

**Reduce plastic consumption.**

**Develop local waste management infrastructure.**

**Invest in waste management policies like EPR.**



Plastic pollution is caused not only by the improper disposal of plastic products but also by the release of primary microplastics from sources such as tire abrasion, shedding of textile fibers, and paint. It is expected that in 2023 this country will be responsible for releasing into the environment an average of

**4 829 tons of microplastic released into waterways.**



In addition, plastic production and processing involve the use of additives, which can have harmful impacts on ecosystems and human health if they leak into the environment due to waste mismanagement. It is anticipated that in 2023, plastic waste mismanagement in this country will result in the release into waterways of

**525 tons of pollution from chemical additives.**

Country archetype

# The Small-Scale Inward Polluters

Consumption Levels: **Low**

Waste Management Effectiveness: **Bad**

Import Volumes: -

Export Volumes: **Low**

## Description

Despite their low plastic consumption levels, the Small-Scale Inward Polluters contribute to plastic pollution levels due to their poor waste management practices. These countries do not export any waste, so the burden of the mismanagement and resulting pollution occurs in their local environment.

## Countries

Cameroon, Chad, Comoros, Congo, Congo Dem. Rep, Djibouti, Gabon, Gambia, Guinea-Bissau, Iran, Lesotho, Liberia, Niger, Papua New Guinea, São Tomé and Príncipe, Sierra Leone, Sint Maarten (Dutch part), Somalia, Sudan, Suriname, Timor-Leste, Turkmenistan, Turks and Caicos Islands, Vanuatu, Yemen

**Collectively, these countries account for 8.28 days out of the total 157 days of plastic overshoot projected to occur in 2023.**

### RECOMMENDATION 1

Invest in waste management policies including Extended Producer Responsibility, which would fund the development of the waste management infrastructure that is currently lacking.

Example

# Iran

Overshoot Day, or the date when the amount of plastic waste outweighs this country's ability to manage it, with environmental pollution occurring as a result, is:

**26 February 2023**

Plastic Overshoot Day is determined by a country's Mismanaged Waste Index\*, which in this case is...

**84.41%**

In 2023, the world will experience **157 days** of plastic overshoot. This country will contribute to this overshoot by

**2.5 day**

The Mismanaged Waste Index, or MWI, is

**very high**

The expected mismanaged waste in 2023 will be

**1102 093 tons of plastic**

The country's annual per capita plastic consumption is

**15 kg / capita / year**

which makes it

**below average per capita plastic consumption**

The total plastic consumption in this country is

**1 305 605 tons of plastic waste**

The amount of plastic waste EXPORTED by the country is

**0 tons of plastic**

which represents

**0 % of its total waste**

This relative export is considered

**relatively low**

The amount of plastic waste IMPORTED by the country is

**0 tons of plastic**

which represents

**0 % of its total**

This relative import is considered

**relatively low**

As per the Plastic Overshoot Day profiles, this country is categorized with:

### The Small-Scale Inward Polluters

*Despite their low plastic consumption levels, the Small-Scale Inward Polluters contribute to plastic pollution levels due to their poor waste management practices. These countries do not export any waste, so the burden of the mismanagement and resulting pollution occurs in their local environment.*

Recommendations for driving necessary changes to mitigate plastic pollution and postpone the Overshoot Day in this country:

**Reduce plastic consumption.**

**Invest in waste management policies like EPR.**



Plastic pollution is caused not only by the improper disposal of plastic products but also by the release of primary microplastics from sources such as tire abrasion, shedding of textile fibers, and paint. It is expected that in 2023 this country will be responsible for releasing into the environment an average of

**19 684 tons of microplastic released into waterways.**



In addition, plastic production and processing involve the use of additives, which can have harmful impacts on ecosystems and human health if they leak into the environment due to waste mismanagement. It is anticipated that in 2023, plastic waste mismanagement in this country will result in the release into waterways of

**6 723 tons of pollution from chemical additives.**

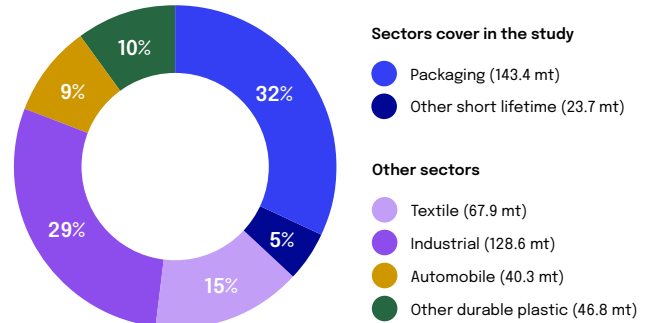
# 05. Appendix

## Scope of the study

The primary objective of this study is to comprehensively quantify plastic pollution on a global scale and determine the global Plastic Overshoot Day, as well as the Overshoot Day for individual countries. The study specifically focuses on plastic waste originating from solid waste management systems, encompassing plastic packaging, single-use plastics, and short-life household plastic products. It is important to note that plastics used exclusively in industrial applications are excluded from this analysis. The research methodology involves conducting the analysis at a global level initially and subsequently drilling down to a country-level assessment, providing a detailed understanding of plastic pollution trends and challenges worldwide.

## Yearly production of plastic in the world

Plastic Overshoot Day sheds light on a critical aspect of the world's plastic consumption: short-life plastics, encompassing plastic packaging and single-use plastics. These categories account for approximately 37% of the total plastic commercialized annually. Moreover, they pose the higher risk of leakage in the environment.



## Country overshoot days

Every country has its own Plastic Overshoot Day. Explore the details for your country:

The full report is available at  
[www.plasticovershoot.earth](http://www.plasticovershoot.earth)



## Methodology

At EA Environmental Action, our mission is to shed light on the critical issue of plastic pollution. We achieve this by leveraging scientific research to quantify the magnitude of the problem, and by empowering individuals and organizations to find solutions. To this end, we place a high value on transparency regarding our methodology for measuring plastic pollution. We believe that clear and comprehensive information on our methodology is crucial to building trust with stakeholders.

The methodological guide is to explain the concept underpinning Plastic Overshoot Day: the Mismanaged Waste Index, and how it is computed.

This methodological guide will also draw on concepts used in the narrative of Plastic Overshoot Day, such as the classifications of countries with regard to management of plastic waste.

The Mismanaged Waste Index (MWI) is a metric used to quantify the amount of plastic waste that is not properly managed in a locality and therefore ends up in the environment.

Because many countries export their plastic waste, it is critical to account for the fate of the exported waste.



The full content of the methodology is available at [www.plasticovershoot.earth](http://www.plasticovershoot.earth)



## 06. Bibliography

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## Plastic... is... everywhere

And the amount of plastic produced is expected to double in the coming years, which will triple the volume of plastic pollution. The underlying issues with plastic pollution are the excessive production and use of plastic across the planet and the lack of sufficient waste management systems to properly process plastic after it has been used. This results in a significant amount of plastic ending up in the environment every year, with a staggering amount ultimately finding its way into the ocean.

Every year, there is a day when the amount of plastic waste surpasses the capability of waste management systems to effectively manage it. This day is known as Plastic Overshoot Day, and in 2023, the global community will reach this critical point on July 28<sup>th</sup>.

It's time for action.

Together, we can work towards reducing plastic consumption, improving waste management systems, promoting sustainable alternatives, and advocating for policy changes to combat plastic pollution and protect our oceans and the environment for future generations.

**[www.plasticovershoot.earth](http://www.plasticovershoot.earth)**

