Branded

FIVE YEARS OF HOLDING CORPORATE PLASTIC POLLUTERS ACCOUNTABLE

BRAND AUDIT REPORT 2018-2022

#BreakFreeFromPlastic

Executive Summary

For the fifth year in a row, Break Free From Plastic has identified the world's top plastic-polluting corporations. Thanks to 14,760 volunteers in 44 countries, 397 brand audits were conducted across six continents in 2022. A brand audit is a participatory initiative where citizen scientists count and document the brands found on plastic waste to help identify the companies responsible for plastic pollution. In total, 429,994 pieces of plastic pollution were collected and analyzed to identify the companies polluting the most places with the most plastic waste. Participants documented brands from 4,645 parent companies this year. Our analysis revealed the top plastic-polluting corporations of 2022 as: The Coca-Cola Company, PepsiCo, Nestlé, Mondelēz International, Unilever, Procter & Gamble, Mars, Inc., Philip Morris International, Danone, and Colgate-Palmolive.

This year, we also analyzed the longitudinal data trends from all five years of our global brand audits (2018-2022). These findings reveal a remarkable consistency of results: year after year, the same multinational fast-moving consumer goods (FMCG) companies – those with the largest market share that generate the most plastic – are the top plastic polluters.[1] Most strikingly, The Coca-Cola Company has been the world's top plastic polluter by a significant lead every year since the global brand audits began in 2018. This year's brand audit found more than 31,000 Coca-Cola branded products, representing a 63% increase from 2021. Brand audits have found increasingly more Coca-Cola products each year, with 2022 results representing more than triple what was found in 2018.[2]
The Coca-Cola Company's consistent ranking as the worst plastic polluter five years in a row flies in the face of recent news that the company has been named an official corporate sponsor of the 2022 United Nations Climate Change Conference (COP27) in Egypt. This announcement has been *denounced as blatant greenwashing*[3] by environmental and climate activists, given the company's long history of *deflecting blame and avoiding regulation*[4].

In 2022, the need to hold corporations accountable for their pollution bears even greater significance as the world's governments come together to begin negotiations for a *Global Plastic Treaty*[5].

Year	Brand Audits	Volunteers	Countries and Territories	Total Count	Top 3 Polluters
2018	240	8,802	43	255,429	1 Coca-Cola 2 PepsiCo 3 Nestlé
2019	721	157,415	52	763,004	1 Coca-Cola 2 Nestlé 3 PepsiCo
2020	575	14,734	55	346,494	1 Coca-Cola 2 PepsiCo 3 Nestlé
2021	440	11,184	45	330,493	1 Coca-Cola 2 PepsiCo 3 Unilever
2022	397	14,760	44	429,994	1 Coca-Cola 2 PepsiCo 3 Nestlé
Total	**2,373**	**206,895**	**87**	**2,125,414**	1 Coca-Cola 2 PepsiCo 3 Nestlé

This is a historic opportunity to address the plastic pollution crisis by reducing the amount of plastic both produced and used by companies via legally-binding mechanisms and enforcement policies. Most of the top polluting companies identified by our brand audits are signatories to the Ellen MacArthur Foundation New Plastic Economy *Global Commitment*[6] to tackle their plastic footprint by 2025 through various voluntary commitments. Five years since their conception, the negligible impacts to date of such voluntary initiatives call into question their effectiveness and validity. The *Global Commitment 2022 Progress Report*[7] revealed that their 2025 targets will 'almost certainly' not be met, and reported an overall increase of virgin plastic use back to 2018 levels. The time for strong mandatory regulations is now.

More than ever, governments must hold polluting corporations accountable for their actions as a matter of facing the climate and plastic pollution crises. The same fast-moving consumer goods companies that always appear on the short list of the world's worst polluters need to **REVEAL** the full extent of their plastic footprint, **REDUCE** plastic production significantly, and most importantly, **REINVENT** their packaging to be reusable or plastic-free or REDESIGN their product delivery systems to shift away from single-use plastic packaging and towards refill and reuse.

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Dedication

We dedicate this report to the thousands of Break Free From Plastic movement members, allies, and friends around the world who have organized brand audits in their communities over the past five years. Thanks to your leadership, this initiative has reached every continent except Antarctica, from underwater with scuba divers along the Australian coastlines, to the busiest shopping mall in Nigeria, to mangroves in Indonesia, and so many more places in between.

Acknowledgements

Thank you to our brand audit leaders for mobilizing their communities to gather this essential data to hold corporate polluters accountable. We are also grateful for the pioneering efforts of the original groups who collaborated in 2017 to design the foundational brand audit methodology we still use today: the Global Alliance for Incinerator Alternatives (GAIA), Mother Earth Foundation, Citizen consumer and civic Action Group (CAG), and Greenpeace Philippines.

Thank you also to the report advisory committee for their time and expertise in developing this collaborative report to represent the global Break Free From Plastic movement: Ana Lê Rocha of Nipe Fagio, Dharmesh Shah of Global Allince for Incinerator Alternatives (GAIA), Marian Ledesma of Greenpeace Southeast Asia, Rosa Pritchard of ClientEarth, Win Cowger of the Moore Institute for Plastic Pollution Research, and the Break Free From Plastic communications hub and global and regional coordination teams. A special thank you to all of the translators who have helped make this report's key takeaways accessible to audiences around the world. Finally, we would like to extend our sincere thanks to the Dutch Postcode Lottery and Plastic Solutions Fund for their generous financial support in making the brand audit coordination and report possible.

Photo Credit: Be the Solution to Pollution, Justin Boone, 2022

Foreword

This year marks the fifth time that our movement has mobilized thousands of volunteers across the world to organize brand audits and focus attention on the real drivers of the plastic pollution crisis. For decades, the public has been conditioned to believe that the problem of plastic pollution, now manifesting in the unprecedented, pernicious, and wide-ranging contamination of all life on the planet, was caused by their own undisciplined ways and the failure of governments to institute and implement proper waste management systems.

Our brand audits have now exposed the real causes of this crisis – and it is mainly due to the irresponsible and predatory practice by corporations of saturating our societies with single-use plastics of all kinds with no consideration of how they can be managed in an environmentally safe and benign manner. To justify our addiction to fossil-fuel based plastics, industry continues to hoodwink the public by insisting on the panacea of plastics recycling despite the incontrovertible evidence of its failure and myriad limitations.

Now, more than ever, governments need to compel polluters to invest in reuse and alternative product delivery systems that avoid the problem in the first place. This is one of the key systemic changes required to prevent the full consequences of climate change and plastic pollution. Break Free From Plastic will continue to advance this message, and this report should serve as notice to the world's top plastic polluters that our movement will continue to confront them with the evidence of their transgressions against the planet and our future.

Von Hernandez
Global Coordinator, Break Free From Plastic

Introduction

Break Free From Plastic's mission with the annual global brand audit is to identify the top polluting corporations to hold them accountable and demand real solutions for the plastic pollution crisis. By gathering data on plastic waste collected at community cleanups around the world, brand audits allow members and supporters of the Break Free From Plastic movement to challenge the plastic industry, hold plastic polluting companies accountable, and build a global community for change. Our movement unites over 2,700 organizations representing millions of supporters around the world. We campaign for systemic change through a holistic approach that tackles plastic pollution across the whole plastics value chain—from fossil fuel extraction to waste disposal—focusing on prevention rather than cure, and providing effective solutions.

Five years ago, plastic was primarily thought of as an ocean pollution issue. Today, understanding of the plastic pollution crisis has deepened to encompass many intersecting issues along the entire plastic life cycle: climate, human health, environmental justice, biodiversity, racial inequality, clean water and air, and more. The annual global brand audits have helped to change public perceptions about the real causes and drivers of plastic pollution, including the companies primarily responsible for creating this crisis in the first place.

The first ever Brand Audit was held in the Philippines in 2017, led by Break Free From Plastic, EcoWaste Coalition, Global Alliance for Incinerator Alternatives (GAIA), Greenpeace, and Mother Earth Foundation. In the five years that people around the world have been doing brand audits, there has been major progress on how people understand plastic pollution as a crisis created and perpetuated by corporations. Thanks to this shift in perspective, many legislative policies are increasingly focusing on corporate responsibility and regulations.

In this report, we present an analysis of all five years of global brand audit data findings. We also examine what the top plastic polluters have done – and failed to do – to address plastic pollution over the past five years. And finally, we outline what we anticipate the next five years will bring as world leaders begin negotiations for the first ever global treaty to end plastic pollution. An ambitious treaty could create the ultimate enabling environment to push stakeholders away from single-use plastic and toward reuse systems. As Break Free From Plastic members have already demonstrated, reuse can truly thrive with the right conditions, including a supporting policy framework that encourages reducing the environmental impacts of packaging and saving money for both companies and consumers.[8]

Photo Credit: Greenpeace Indonesia, Alvi Apriayandi, 2022

2016

Creation of Break Free From Plastic movement

A group of allied organizations meets in Tagaytay City in the Philippines to unite civil society groups in working together to demand massive reductions in single-use plastics and push for systemic change and lasting solutions to the plastic pollution crisis.

2017

First large-scale brand audit in the Philippines

The brand audit methodology is designed by the Global Alliance for Incinerator Alternatives (GAIA), Mother Earth Foundation, Citizen consumer and civic Action Group (CAG), and Greenpeace Philippines who together collaborate to organize the first large-scale brand audit on Freedom Island in the Philippines.

2018

First global brand audit, and the launch of corporate commitments to tackle their plastic footprints by 2025

Our first ever global brand audit takes place across 42 countries, engaging nearly 10,000 volunteers in 239 cleanup and brand audit events.

The Ellen MacArthur Foundation and the UN Environment Programme together launch the New Plastics Economy Global Commitment uniting businesses, governments, and other organizations to tackle their plastic footprint by 2025 through various voluntary commitments.

2019

Record-breaking numbers

Our second global brand audit engages 157,415 volunteers in 52 countries to conduct 721 brand audits. These volunteers collect 763,004 pieces of plastic waste.

2020

Brand audits during Covid-19

Despite the global pandemic, over 14,000 volunteers organize brand audits in 55 countries for the first time - a new record!

2021

Lawsuits, plastics and climate change

Citing brand audit data, BFFP member organizations in the USA file three different lawsuits against top polluter The Coca-Cola Company.

Greenpeace's The Climate Emergency Unpacked[9] reveals that Coca-Cola, Nestlé, and PepsiCo are driving the expansion of plastic production, and that this expansion threatens the global climate. The same year, Break Free From Plastic publishes the Missing the Mark Report[10], unveiling how many corporate plastic pollution projects are actually false solutions.

2022

Five-year global brand audit report, and initial global plastic treaty negotiations

Five years of cumulative data is analyzed in this year's report.

The first session of the Intergovernmental Negotiating Committee to develop an international legally binding treaty on plastic pollution is held in Uruguay in November 2022.

01

Five Years of Brand Audits: 2018-2022

Photo Credit: Nipe Fagio, Ana Lê Rocha, 2022

In just five years, brand audits have elevated people's understanding of the structural causes of plastic pollution, namely that corporations are responsible for producing excessive amounts of unmanageable single-use plastic packaging. Most importantly, this data collection tool has provided concrete evidence of which corporations are trashing communities worldwide with their plastic waste. These corporations are causing *disproportionate harm to vulnerable communities, especially in the Global South, at all stages of the plastic lifecycle.*[11]

Brand audits also enable us to hold corporate polluters accountable, because we have the hard data to prove that their single-use plastic packaging model is creating widespread havoc in nature and in places where their problematic packaging materials are ending up. To illustrate the impacts of corporate actions over time, in this chapter, we reveal not only the 2022 brand audit data analysis results, but also the trends across all five years of global brand audits from 2018 to 2022.

The brand audit methodology has remained largely unchanged from 2018-2022 (a detailed overview can be found in the Methodology section). The foundational methodology was designed by the Global Alliance for Incinerator Alternatives (GAIA), Mother Earth Foundation, Citizen consumer and civic Action Group (CAG) India, and Greenpeace Philippines. It is highly telling to note that other audit initiatives using different methodologies have yielded the same results. UK-based Surfers Against Sewage's *2022 Citizen Science Brand Audit*[12] found The Coca-Cola Company and PepsiCo remained the top two polluters for three years running. Wastebase, a digital plastic auditing platform based primarily in sub-saharan Africa, also revealed The Coca-Cola Company to be the top polluter in Kenya, and among the top five polluters in Malawi, Mozambique, Rwanda, Tanzania, Zambia, and Zanzibar.[13]


Photo Credit: ESDO, Hridita Ferdous, 2022

The data that forms the basis of this year's report comes from a collaboration among Break Free From Plastic members and allies who mobilized 206,895 volunteers to conduct 2,373 brand audits in 87 countries and territories between 2018 and 2022. These brand audits recorded a total of 2,125,414 pieces of plastic waste. **Our analysis of five years of brand audit data reveals the following corporations as the Top 10 Global Corporate Plastic Polluters: The Coca-Cola Company, PepsiCo, Nestlé, Unilever, Mondelēz International, Mars, Inc., Procter & Gamble, Philip Morris International, Danone, and Ferrero Group.**

Topline Summary of 2018-2022 Findings

Across this five year period, The Coca-Cola Company has remained consistently the world's #1 worst plastic polluter by a significant margin. PepsiCo has come in as the #2 top polluter every year except 2019 when it was #3. Nestlé, Unilever, Procter & Gamble, and Mondelēz International have consistently appeared in the top 5 list, with the order shifting slightly year to year. In line with the product types produced by these companies, food and beverage wrappers, followed by bottles and sachets, have been the top category recorded every year across all regions.

Regional Breakdown

In addition to the annual global reports, the past five years have also seen Break Free From Plastic members in almost 20 countries publishing local and national brand audit reports of their own. These reports reveal a more detailed picture of the plastic pollution situation in different places, enabling campaigners, researchers, and policymakers to take action accordingly at the local, state, and national levels. A few notable findings emerged in these national reports:

In Denmark, *Plastic Change's 2021 national brand audit report*[14] revealed a stark difference from the global report in the complete absence of plastic bottles found. "The absence of plastic bottles in Danish nature is of course due to our **well-functioning deposit return system.**[15] This is exactly why it is worth considering what we can learn from the deposit return system in relation to the products that end up in nature. For example, how systems, legislation and standardization can remove waste from nature." - Anne Aittomaki, Strategic Director at Plastic Change

In Tanzania, Nipe Fagio has conducted large-scale national brand audits yearly since 2018. Their *national 2021 report* revealed a significant decrease in plastic bags following the June 2019 implementation of Tanzania's national ban on plastic bags, from 30,268 collected in 2018 down to only 203 in 2020.[16]

In Brazil, *Instituto Polis' brand audit report*[17] examined waste sent to cooperatives for recycling and found that 33% were in fact unrecyclable single-use plastics primarily from Nestlé, Mondelēz International, and PepsiCo. Between 1995 and 2019, 135 bills that deal with limitations on the use and commercialization of various single-use plastic items were presented to the National Congress, but **were always stopped by pressure from the industrial sector.**[18]

Local and National Brand Audit Reports

Asia	*Friends of the Earth Sri Lanka Brand Audit 2019 Report* I *Rendu Ocean 2018 Beach Litter Brand Audit Report* (China) I *Sungai Watch River Plastic Report 2020* (Indonesia) I *Vietnam Zero Waste Alliance Brand Audit Report 2018-2020* I *SWaCH/Kashtakari Panchayat Unwrapped: Exposing India's Top Plastic Polluters* I *Greenpeace Philippines 2021 Brand Audit Report* I *ESDO Brand Audit Report 2021* (Bangladesh)
Africa	*Nipe Fagio National Report 2021* (Tanzania) I *End Plastic Pollution Flowing with Plastics 2022 Brand Audit Report* (Uganda) I *Green Africa Youth Organization's Brand Audit 2022 Report* (Ghana) I *Clean Up Kenya 2021 Brand Audit Report* I *Sustainable Research and Action for Environmental Development (SRADeV) 2020 Nigeria World Cleanup Day and Brand Audit Report*
Europe	*Plastic Change 2020 Brand Audit Report* (Denmark) I *Zero Waste Academy Waste Audits and Brands 2022* (Ukraine) I *Surfers Against Sewage 2022 Citizen Science Brand Audit* (United Kingdom) I *Canal It Up* (Belgium)
Latin America	*Instituto Polis Rejeitos de Plásticos* (Brazil) I *Fronteras Comunes 2021 Brand Audit Report* (Mexico)
North America	*5 Gyres Plastic-Free Parks TrashBlitz Report 2022* (USA) I *PLAN Campus Brand Audit Report 2021-2022* (USA) I *Gwinnett Recycles Plastic Litter Report 2021* (USA)

More national brand audit reports are being planned in Australia, Ecuador, and France.

Chapter 1: Five Years of Brand Audits: 2018-2022 Brand Audit 2018 - 2022

Regional breakdown: *5-year findings*

North America

466
AUDIT EVENTS

88,145
PLASTICS COLLECTED

MOST COMMON ITEMS

1. 16,625 Bottles
2. 15,118 Caps/Lids
3. 12,960 Food/Drink Wrappers

Latin America

218
AUDIT EVENTS

120,381
PLASTICS COLLECTED

MOST COMMON ITEMS

1. 13,257 Smoking Materials
2. 12,175 Food/Drink Wrappers
3. 10,935 Bottles

Europe

340
AUDIT EVENTS

254,138
PLASTICS COLLECTED

MOST COMMON ITEMS

1. 105,891 Smoking Materials
2. 21,729 Food/Drink Wrappers
3. 17,697 Bottles

Africa

326
AUDIT EVENTS

608,363
PLASTICS COLLECTED

MOST COMMON ITEMS

1. 174,552 Bottles
2. 78,423 Food/Drink Wrappers
3. 67,541 Sachets

Asia and the Pacific

841
AUDIT EVENTS

998,757
PLASTICS COLLECTED

MOST COMMON ITEMS

1. 179,680 Food/Drink Wrappers
2. 85,566 Bottles
3. 66,637 Sachets

Case studies: Spotlight on sachets

One highly concerning trend has been the rise of single-serve sachets and flexible packaging, particularly across Africa and Asia. This is an intentional corporate strategy to market products in small quantities at low cost to appeal to emerging economies in the Global South. In Asia, companies sell food, personal care and household products in sachets, while in Africa it is more common to see drinking water sold in such packaging formats. Instead of making drinking water available through water stations and refill systems, companies choosing to sell drinking water in sachets are undermining the *basic human right to safe and clean drinking water*[22] and exploiting this need for their own financial gain. In reality, sachets' true costs are externalized, as communities suffer the consequences from this unrecyclable low-value waste choking waterways, burdening waste management systems and their workers, disrupting coastal communities' livelihoods, creating health risks, and contaminating food systems. Likewise, plastic sachet waste contributes to the *spread of disease*[23] by clogging drains, providing a breeding ground for mosquitoes, and aggravating floods.

For years, these "household name" brands have relied on efforts to promote and market their products as "recyclable" in order to convince the public that they can continue business as usual. PET bottles, known for being the most widely recyclable plastic item globally, have simultaneously been the second most common item recorded in our global brand audits every year - just after food and beverage wrappers. This emphasizes an important truth: **Recycling systems cannot keep up with the volume of plastic produced.** More than 90% of all the plastic ever produced has wound up either being burned in incinerators, landfilled, exported, or discarded into streets, waterways, oceans, etc.[24] In the United States, only 5-6% of plastic gets recycled each year.[25] We cannot recycle our way out of the plastic pollution crisis.

Single-use plastic production is the driving force behind the global plastic pollution crisis. To end plastic pollution, companies must stop making plastic and invest in alternative product delivery systems.

02

Five years of corporate failures, inactions, and distractions

The first global brand audit was conducted in 2018, in part as a reaction to the Ocean Conservancy's highly controversial 2015 *Stemming the Tide report*, in an effort to shift accountability for plastic pollution back to the companies that created the crisis in the first place. Written by the McKinsey & Company consultancy, with a steering group including big industry polluters The Coca-Cola Company, Dow Chemical, and the American Chemistry Council, this report blamed five Asian countries – the Philippines, China, Indonesia, Vietnam and Thailand – for the majority of plastic pollution in the ocean. The report did significant damage in several ways. It exacerbated or compounded the injustices already caused by the waste trade by blaming the nations bearing the externalized costs. It failed to address the corporations driving the use of single-use plastic, or the systemic failures of the waste trade that led to those five countries becoming dumping grounds for richer countries' waste. And the report advocated that the solution was to build more incinerators, despite enormous opposition to this polluting form of waste treatment. In 2022, after years of pushback from BFFP members, the Ocean Conservancy *retracted the report and issued a formal apology*, acknowledging plastic production as the root cause of the crisis and rescinding their endorsement of waste incineration.[26]

Five years ago, partly as a result of this damaging report, many people thought that the main source of ocean plastic pollution was just five countries – the very same countries that were, in fact, receiving the most plastic waste exports from the Global North. Today, thanks to the data gathered from the annual global brand audits, we have successfully challenged this false narrative to tell the true story of plastic pollution. The top plastic polluters are not countries, but rather fast-moving consumer goods (FMCG) companies headquartered in Europe and the United States, which produce millions of tons of single-use plastic packaging annually.

Five years ago in 2018, the Ellen MacArthur Foundation and the United Nations Environment Programme together launched the New Plastics Economy *Global Commitment* uniting businesses, governments, and other organizations behind a *common vision* of a circular economy for plastic in which it never becomes waste or pollution.[27] The centerpiece of this Commitment is a set of voluntary commitments made by major FMCG companies, including most of the top plastic polluters. These commitments formed the backbone of the corporate response to public pressure to address plastic pollution. Most companies committed to:

1. *Make 100% of their packaging recyclable, reusable or compostable by 2025*
2. *Reduce virgin plastic use*
3. *Include more recycled content in their packaging*

With only two years to go to the commitment deadline, major progress towards these goals would be expected. However, each year the Global Commitment annual report is a dismal record of corporate inaction and backsliding, while in many cases the amount of plastic packaging these companies use continues to grow. To date, voluntary commitments are not leading to any kind of significant impact on plastic reduction – something that could be mitigated by an ambitious, legally-binding Global Plastics Treaty.

It is important to note that the commitments made by many of the top polluting companies center around making packaging 'recyclable' - despite the Ellen MacArthur Foundation's own recognition of the limitations of recycling and emphasis on the importance of plastic reduction and shifting to reuse. Their 2021 progress report clearly states that recycling "is not enough to solve plastic pollution - much more focus is urgently needed on eliminating single-use packaging"; "we see alarmingly little investment in efforts to reduce the need for single-use packaging"; and "levels of ambition to explore and scale reuse appear very low".[28] The desperately needed solution of fundamentally reducing plastic use and replacing single-use with reusable packaging systems receive little corporate attention.

The world's recycling capacity cannot keep pace with the enormous amount of packaging produced, even in countries with advanced systems and legislation to support it. Many forms of packaging and plastic types cannot be easily, safely or economically recycled, especially given the myriad of toxic additives and chemicals used in their production, and the environmental impact of recycling.

With that said, **recycling is an important livelihood for many workers around the world. Therefore, when recycling is needed, it should be made safer, workers rights must be improved and respected, and it should be done locally where the waste was generated. However, it is important to remember that we will never be able to recycle our way out of this crisis.** Companies should not rely on such a flawed system as the sole means of tackling their extreme plastic footprints.

In addition to their fixation on recycling, and a failure to embrace methods of reducing single-use plastic

packaging, corporate polluters are pursuing a range of 'false solutions' to the plastic crisis that are either misguided distractions or dangerously damaging to the environment or human wellbeing. Concepts such as "plastic offsetting", "plastic neutrality", landfill mining, plastic roads, waste-to-energy, unproven technologies such as chemical recycling and burning plastic in cement kilns are all being pursued by FMCG companies, though they do not reduce the amount of plastic produced. Commitments and policies - especially the Global Plastics Treaty - must explicitly prohibit problematic approaches or technologies that will do more harm than good, as many of these have been shown to exacerbate the effects of the plastic crisis on people and the climate.

FMCG companies are big players in the plastics supply chain, but they do not act alone. The plastic story begins much further upstream with the extraction of its raw materials: fossil fuels. **The familiar brand names of Coca-Cola, PepsiCo, Nestlé, and others are customers of the world's largest plastic resin producers – vertically integrated fossil fuel/petrochemical companies that make petrochemicals from their oil and gas operations.** A 2021 Greenpeace investigation revealed that top plastic polluters The Coca-Cola Company, PepsiCo, Nestlé, Mondelēz, Danone, Unilever, Colgate Palmolive, Procter & Gamble, and Mars buy packaging from manufacturers supplied with plastic resin or petrochemicals by well known companies like ExxonMobil, Shell, Chevron Phillips, Ineos, and Dow.[29] **Plastic is inextricably linked to the fossil fuel industry and climate change.**

There are glimmers of hope that these companies are finally feeling the pressure to change. In February 2022, The Coca-Cola Company committed to having at least 25% of all beverages globally sold in refillable and returnable glass or plastic bottles by 2030, or in refillable containers through drinks fountains.[30] Part of their justification for this new commitment was a recognition that single-use plastic packaging was bad for the climate and reusable packaging solutions could help. This marks a significant shift in the company's approach to plastic, as just two years earlier the company stated they would not ditch single-use plastic bottles *"because consumers still want them."*[31] **However, any commitments made by The Coca-Cola Company have been 100% voluntary and lack real accountability mechanisms.** Other top polluters have begun to respond similarly. Unilever CEO Alan Jope has publicly acknowledged that single-use plastic sachets are an environmental disaster and must be phased out: "We have to get rid of them. It's pretty much impossible to mechanically recycle and so it's got no real value".[32] PepsiCo is also investing more in its SodaStream business for refillable carbonated drinks. Unfortunately, without significant and scalable investments in alternative systems, many of these corporate pronouncements amount to nothing more than empty rhetoric intended to boost their images as responsible companies.

In September 2022, a group of businesses, convened by the Ellen MacArthur Foundation and World Wildlife Fund, launched the *Business Coalition for a Global Plastics Treaty* calling for "the development of an ambitious, effective and legally binding UN treaty to end plastic pollution," and including a *vision statement* focused on reduction, circulation, prevention, and remediation.[33] This is a promising start, but it remains to be seen if it will lead companies to abandon their portfolio of damaging false solution projects and commit to changing their business models to move away from single-use packaging.

Coca-Cola

What Brand Audits *Show:*

1st

Top Polluter with **85,035 items** recorded across **78 countries**

What they *say:*

Make **100%** of our packaging recyclable globally **by 2025**

Use at least **50%** recycled material in our packaging **by 2030**

Reduce our use of virgin plastic derived from non-renewable sources by a cumulative 3 million metric tons **by 2025**

Have **at least 25%** of all beverages worldwide by volume sold in refillable / returnable glass or plastic bottles or in fountain dispensers with reusable packaging **by 2030**

What They *Do: Produce More Plastic*

3,224,000 metric tons
PRODUCED ANNUALLY[1]

What They *Do: Greenwash*

Example:
The Coca-Cola Company has proactively lobbied against packaging regulation around the world for more than a decade.

What They Should be Doing Instead: *Shift to Reuse*

1.3% reusable packaging in 2021 (down from 4% in 2018)

PEPSICO

What Brand Audits *Show:*

2nd

Top Polluter with **50,558 items** recorded across **66 countries**

What they *say:*

Design **100%** of packaging to be recyclable, compostable, biodegradable or reusable **by 2025.**

Invest to increase recycling rates in key markets **by 2025.**

Cut virgin plastic from non-renewable sources per serving across global beverages and convenient foods portfolio **by 50% by 2030.**

What They *Do: Produce More Plastic*

2,500,000 metric tons
PRODUCED ANNUALLY[1]

What They Do: *Greenwash*

Example:
PepsiCo is a core partner in six industry alliance groups, and three of these (Alliance to End Plastic Waste, Closed Loop Partners and Circulate Capital) are driving a full 42 of the 50 total false solutions projects we found by alliances and group initiatives that the top seven polluting FMCGs are part of.

What They Should be Doing Instead: *Shift to Reuse*

% of reusable packaging in 2021 was **not reported**

Source: *Ellen MacArthur Foundation Global Commitment 2022 Progress Report*

Nestlé

What Brand Audits *Show:*

3rd

Top Polluter with **27,008 items** recorded across **64 countries**

What they *say:*

Make **100%** of our packaging recyclable or reusable by **2025.**

Reduce use of virgin plastics in packaging **by one third by 2025.**

Supporting the development of well-functioning collection, sorting and recycling schemes wherever we operate, and scaling up reusable and refillable alternatives where possible.

What They *Do:* *Greenwash*

Example:
Nestlé is part of a worldwide effort by big multinationals to burn plastic waste in cement kilns in an effort to achieve "plastic neutrality."

What They Should be Doing Instead: *Shift to Reuse*

1% reusable packaging in 2021

What They *Do:* *Produce More Plastic*

920,000 metric tons
PRODUCED ANNUALLY[1]

Unilever

What Brand Audits *Show:*

4th

Top Polluter with **22,938 items** recorded across **60 countries**

What they *say:*

By 2025, halve the amount of virgin plastic we use in our packaging and achieve an absolute reduction of more than 100,000 tonnes. Collect and process more plastic packaging than we sell. Ensure that **100%** of our plastic packaging is designed to be fully reusable, recyclable or compostable. Use **25%** recycled plastic in our packaging.

What They *Do:* *Greenwash*

Example:
Unilever is funding efforts in Indonesia to burn plastic trash in cement plants as cheap energy.

What They *Do:* *Produce More Plastic*

713,000 metric tons
PRODUCED ANNUALLY[1]

What They Should be Doing Instead: *Shift to Reuse*

0.1% reusable packaging in 2021

Mondelēz International

What Brand Audits *Show:*

5th

Top Polluter with **9,609 items** recorded across **59 countries**

What they *say:*

By 2025, 5% recycled plastic content, **5%** reduction in virgin plastic, **25%** reduction in rigid virgin plastic, and **100%** packaging designed to be recyclable.

What They *Do:* *Greenwash*

Example: Mondelēz International joined PepsiCo, Mars, Nestlé and Unilever in creating the UK Flexible Plastic Fund to recycle flexible plastics. Over a year later, it has not yet paid anything to the recyclers for plastic processing.

What They *Do:* *Produce More Plastic*

198,000 metric tons
PRODUCED ANNUALLY[1]

What They Should be Doing Instead: *Shift to Reuse*

0% reusable packaging in 2021

"Masters in lobbying, petrochemical firms and plastic producers focus attention on waste management and recycling *so they can evade their responsibility for the true problem: the growth in the volume of plastics being made."* [34]

Photo Credit: Break Free From Plastic, Trixie Guerrero, 2022

This analysis of the corporate commitments and their real implications is far from exhaustive; it is merely a short overview of the greenwashing highlights from these top polluting companies over the past five years. For a more detailed analysis, please see *Missing the Mark: Unveiling corporate false solutions to the plastic pollution crisis* and *Talking Trash: the corporate playbook of false solutions to the plastic crisis.*[35]

Let us be clear – given the breaching of climate and pollution limits, there is no time to waste or room for false solutions. The past five years have demonstrated that voluntary commitments merely enable greenwashing, and companies are *pushing back*[36] against taking real accountability for the pollution stemming from their systemic addiction to single-use plastic packaging. Public voluntary sustainability commitments and membership in "green" industry coalitions – which in reality advocate false solutions – tend to be used by corporations to influence and shape public opinion in their favor. They use pledges for public relations, marketing and branding themselves as sustainable when the reality is that they are still driving plastic production and a dependence on a throw-away model.

A Deutsche Welle *investigation* found that two-thirds of pledges to go greener on plastic have failed due to companies breaking their own commitments: "The data show that companies only change their tactics when pressured through legislation, public accountability and consumer demand. The next litmus test will come in 2025, when companies will have to deliver on their current set of plastics promises."[37] In the meantime, we must exercise caution against praising targets too much, and focus on articulating what authentic commitments should be. Until the corporate commitments translate to concrete actions or clear roadmaps for reduction with actual mechanisms for remediation, these are all merely distractions and hollow promises that will continue to allow the same corporations to keep destroying our planet.

03

The Next Five Years

The next five years will be defined by important new fronts in the fight to end plastic pollution. First, there is the growing alarm and evidence over toxic chemical additives in some plastic packaging and their impacts on human health. Second, we expect mounting public demands for legally-binding policies and measures to stop plastic pollution. Third, we anticipate increasing cases of legal actions targeting corporations, retailers, and others responsible for damage associated with plastic pollution. And fourth, we will see more real solutions that have demonstrated the power to reduce plastic use, through alternative delivery systems, zero waste communities, and reuse/refill initiatives.

Photo Credit: Trash Hero Thailand, 2022

I. Toxic chemical additives in plastic packaging impact human health

A flurry of scientific research in recent years has sounded the alarm over the *effects of plastic's entire lifecycle on human health*.[38] During the manufacturing process, toxic chemicals such as phthalates and bisphenols [and PFAS] as well as other endocrine disrupting chemicals are added to some types of plastic, which may subsequently migrate into our food, water, and ultimately our bodies. One of the most alarming scientific findings to date has been the research of leading environmental and reproductive epidemiologist Dr. Shanna Swan, who has found that a wide range of chemicals in plastic are dramatically lowering fertility in men and women.[39] Another area of growing concern is plastic drink bottles leaching chemicals and contaminating the liquid inside. A recent report from Defend Our Health found unsafe levels of antimony, an element used to manufacture PET and reported by the National Institutes of Health to be *toxic in high doses*.[40] In this study, 90 percent of the plastic bottled beverages tested exceeded recommended levels.[41] Additional studies have shown similar phenomena with both recycled and reusable soft plastic bottles: recycled plastic bottles leached *18 different chemicals in levels exceeding regulation*.[42] PFAS, known as "forever chemicals" due to their resistance to breakdown, have also been identified in *plastic containers and bottles*.[43]

Plastic also has devastating effects on human health at the downstream stage of waste dumping, burning, and even recycling. For communities living near landfills, waste facilities, or incineration sites, the impacts have been *well documented in many places around the world*[44] where burning plastic waste has been found to poison food with high levels of toxic chemicals, including some of the most toxic ones known to science.The issue is also dire for those living near a plastic waste site, including the most vulnerable – babies and children. A groundbreaking IPEN study analyzing the health effects of toxic chemicals in plastic children's toys and consumer products demonstrated that "the levels of toxic chemicals revealed in all the samples studied were comparable to levels found in hazardous wastes, such as the ash from waste incinerators".[45]

II. Increasingly robust policy addressing plastic and its impacts

The body of legislation targeting different aspects of the plastic crisis has been steadily growing over recent years, and is set to grow further, fuelled by the eventual *Global Plastics Treaty*. While no single country or region has established a truly comprehensive policy framework for addressing plastic pollution, it is becoming easier to see what that might look like. Policies that ban the most unnecessary forms of single use plastic (such as plastic bags or straws) or the most harmful types of plastic (such as expanded polystyrene) are essential, but not enough on their own.
They must be accompanied by legal targets for reducing plastic production, improving recycling and recycled content of products, binding targets for the development of reuse systems, and laws on toxic chemical additives and microplastics. Laws that place the responsibility for waste collection, recycling and waste reduction on the companies that generate that waste are helpful, but must be designed carefully to avoid pitfalls and loopholes. Due to the complexity and trans-boundary nature of the plastic lifecycle and its pollution, governments will need to work together to be effective.

All these policies and more will be needed to tackle plastic pollution, but ultimately, the world urgently needs legislation that will keep fossil fuels in the ground. This is essential if global heating is to be limited to 1.5 degrees celsius, and it will also restrict new plastic production as nearly all plastic is made from fossil fuels. The expanding set of laws around the world demonstrates that there is significant political momentum to address this crisis. It is essential that it is done in a way that centers and recognizes the rights and roles of the disproportionately impacted, including the informal waste workers sector, indigenous communities, women, and youth.


Photo Credit: Vietnam Zero Waste Alliance, Thao Pham

Photo Credit: ESDO, Hridita Ferdous, 2022

III. Escalating legal action targeting companies on their plastic pollution around the world

As evidence of the harm caused by plastic to humans and the environment continues to grow, corporations are at an ever greater risk of legal actions that challenge their current business model. Companies across the plastics value chain, from fossil fuel industries to consumer goods giants and waste management companies, are increasingly exposed to lawsuits because of their plastic use and the growing risks associated with plastics. Fast-moving consumer goods companies and supermarket groups that dominate the manufacture and sale of packaged food and drink are *likely to be impacted by significant regulatory, reputational, and legal risks* of their reliance on plastic packaging.[46] A *recent study* from the Minderoo Foundation found that companies face colossal liability risk in excess of US$20 billion through 2030 in the United States alone.[47]

In a *new series of briefings*, ClientEarth explores legal trends including "greenwashing" allegations from consumers and shareholders, challenges on hazardous plastic additives and criminal prosecutions against waste management companies.[48] The primary conclusion is that **momentum on lawsuits is building**. In 2021 alone, organizations in the USA filed three different lawsuits citing brand audit data against top polluter The Coca-Cola Company for *public nuisance and defective product liability*[49], *false and deceptive advertising*[50], and *misleading consumers on plastic bottle recycling*[51]. This first lawsuit targets not just The Coca-Cola Company, but also other top plastic polluters Pepsico, Inc., Nestlé USA, Inc., Mars, Incorporated, Danone North America, Mondelēz International, Inc., Colgate-Palmolive Company, and The Procter & Gamble Company for "nuisance created by their plastic packaging, including polluting waterways with plastic trash and touting products as recyclable when they're not." Recently in France, nine leading French food and retail *companies were put on notice to "respect the law" and reduce their plastic use*.[52] Most claims so far are happening in the US, followed by Europe. But claims against companies in other regions – especially Asia – are increasingly likely.

Photo Credit: Let's Do It! Ghana, Kate Adobaya, 2022

IV. Real solutions that have demonstrated the power to spark a reuse revolution

In the next five years, it is imperative to promote proven solutions to counter corporate greenwashing and inertia. Thankfully, there is no shortage of existing solutions that reduce plastic use that can replicate and scale, such as alternative delivery systems, zero waste, and reuse/refill. *Sustainable models in Global South countries are leading the way towards a reuse revolution with both traditional reuse and refill systems, and their modern equivalents.*[53] Traditional reuse systems are still being widely used in Africa, such as communal clay and ceramic water jugs which have been proven to be *effective filters for removing bacteria*[54] (not to mention also being made from locally available renewable resources for a low one-time cost). Rwanda has *reverted to its traditional practices*, where handmade baskets are used as alternatives to plastic bags.[55] 2022 has also seen the launch of a new *Reuse Portal*, a partnership with the UN Environment Programme and the World Wildlife Fund to launch a one-stop-shop global collaboration platform to build the tools and networks for shifting from single-use to reuse.[56] "Refillables have demonstrated the ability to substantially cut plastic waste and in some markets achieve collection rates of 90% or more; Refillable bottles can be reused from 20 to 40 times".[57] "Other benefits of adopting reuse models in key sectors are significant reduction of CO2, water, and material use, compared to a business-as-usual scenario where single-use packaging is predominant".[58]

Furthermore, shifting to systemic solutions like zero waste[59] is essential for addressing both plastic pollution and the climate crisis. Waste generated from mismanaged organics contributes to climate change - for example, 20% of methane emissions, which is 82 times as powerful as CO2, comes from waste. 70% of global greenhouse gas emissions are embedded in the life-cycle of all products. Zero waste and reuse systems are proven global solutions that are already working well across both the Global North and the Global South.

Modeling scenarios for eight cities have shown the positive effects of zero waste strategies, demonstrating that zero waste is a powerful mitigation strategy that is highly adaptable to different needs and circumstances. By shifting towards zero waste systems - which already exist in many cities in both Global North and Global South countries - we can build the systems change needed to address both the plastic and climate crises while also offering a myriad of benefits like quality jobs, clean air, and healthy soil.[60]

Conclusion

The past five years have revealed several important truths.

1) The consistency of the brand audit data results shows that the top plastic polluting FMCGs are the very same corporations with the biggest annual plastic production outputs.[61] **Plastic pollution is a crisis caused by plastic production, and must be addressed by capping production.** Our five-year analysis of data trends from 2018-2022 reveals that year after year, the exact same FMCG companies continue to dominate the list, with The Coca-Cola Company standing out as the clear top polluter by a significant margin over all five years.

2) During this same time frame, top polluting FMCG companies have relied on increasingly sophisticated greenwashing schemes, false solutions, and failure to act on already weak commitments. Companies cannot be relied on to bring about the systemic change needed to address plastic pollution through voluntary commitments. Technical experts, scientists, and environmental campaigners worldwide all agree that a global plastics treaty is needed and it must *significantly reduce plastic production.*[62] The treaty is a historic step forward in the fight against plastic pollution, and as the negotiations proceed through the end of 2024, it is imperative that this treaty meets the scale of the crisis, by ensuring that policies cut plastic production and hold corporations accountable for perpetuating this global crisis.

3) There is a broad and growing coalition demanding corporate accountability for plastic pollution including scientists, advocacy groups, indigenous groups, parents, business owners, workers, religious organizations, climate activists, waste pickers, fisherfolk, and many more. *And it is working*.[63]

Five years ago, an internet search for "top plastic polluters" yielded a list of countries due to the now-retracted Stemming the Tide report. Today, this same search results in a list of the top plastic-polluting corporations as a direct result of our annual global brand audits. Proven solutions centered on reuse and refill already exist and have demonstrated success in a wide range of contexts, in both Global North and Global South countries.

Plastic-polluting corporations must REVEAL their total global plastic footprints, REDUCE the amount of plastic produced by ending their reliance on single-use packaging, and REDESIGN their products and delivery systems for refill & reuse. It is not enough for top polluters to make voluntary commitments: national governments and international decision-makers must hold corporations accountable through regulations and a legally binding Global Plastic Treaty that recognizes plastic production and pollution as part of the climate crisis.

Plastic pollution is a crisis ***caused by plastic production,*** and must be addressed by ***capping production.***

Methodology

Foundations
The foundational brand audit methodology was designed by the Global Alliance for Incinerator Alternatives (GAIA), Mother Earth Foundation, Citizen consumer and civic Action Group (CAG), and Greenpeace Philippines. These pioneering groups collaborated in 2017 to organize the first large-scale brand audit on Freedom Island in the Philippines. Our current methodology remains mostly unchanged apart from a few simplifications.

Methodology changes throughout the years
In 2018 and 2019, the *original data card* contained a few additional categories: number of bags, volume of each bag, area covered, and the question "Recycled locally?" After consulting with scientific experts, we decided to remove these categories in 2020 and developed an *updated data card*. We also clarified that "Other/Unknown" materials must refer specifically to unknown or unidentifiable plastics. We then added a question, "Have you participated in a BFFP online training?" These decisions were made in order to better account for any bias, minimize human error, and ensure higher quality data that can be used for a peer-reviewed academic article.

Recruitment
Throughout 2018-2022, Break Free From Plastic (BFFP) mobilized people around the world to organize brand audits in their communities. During this timeframe, participants were recruited through our BFFP social media channels, email lists, newsletters, and movement members who spread the word across their networks and communities. All participants took part in the brand audit on a voluntary basis.

Training
BFFP provided live online training webinars for leaders to support them with everything from event planning logistics to data collection details. In addition, BFFP developed a *new training platform* including extensive training videos in seven languages co-developed by members, answers to frequently asked questions, and an option to sign up for additional support as needed. We also provided a short *animated training video* with subtitles available in 17 languages.

COVID-19
Due to the coronavirus pandemic, extra steps were taken to prioritize the health and safety of participants. Brand audit event organizers were asked to follow a *Cleanup and Brand Audit Coronavirus Risk Assessment Guide* and adhere to the safety procedures. When outdoor cleanup and brand audit gatherings were not deemed safe due to COVID-19, we encouraged individual outdoor brand audits. We also presented the option for indoor brand audits at home as a last resort.

Site Selection
Participants chose their preferred site(s) for the cleanup and brand audit. Brand audit sites have ranged from urban city streets, parks, forests, beaches, coastal areas, and other places where plastic pollution accumulates. Due to pandemic restrictions against large public gatherings in some places, participants also had the option of conducting indoor brand audits at home. This involved designating a collection container for all the plastic packaging they disposed of during one week and auditing the total at the end of the 7th day.

Data Recording

Participants used the *brand audit toolkit* (available in 18 languages), and the *data card* and *visual guide* (available in 15 languages), to guide their data collection process in a standardized manner. The data card required participants to document the following categories about the plastic pollution collected:

- brand names
- item descriptions
- types of products
- types of materials
- layers

Data Analysis

Participants submitted their data using one of three standardized digital platforms: the *BFFP online form*, the *TrashBlitz* web app, or an *Excel spreadsheet*. Outdoor data and indoor data were combined to calculate the top 10 global corporate polluters – the companies polluting the most places with the most plastics. This is because From Break Free From Plastic's perspective, all plastic is pollution,not just the plastic litter collected outdoors. Nevertheless, the resulting top 10 polluters list remained the same when indoor and outdoor data were analyzed separately, as well as together. Indoor data comprised a small minority of the data – only 13% of the total data submitted in 2020, 16% in 2021, 7% in 2022.

While outdoor brand audit data tells us about plastic that has escaped the waste stream, indoor brand audit data as well as waste picker data reveal that plastic within the waste stream is also problematic. As a fossil fuel product, single-use plastic packaging causes pollution from the moment it is produced. Even if it does end up being properly collected, plastic packaging is often incinerated or exported to other countries unequipped to manage it.

Data Analysis in 2019

During our five year data review and analysis for this report, our analyst made an important discovery. In 2019, data included in the global analysis only came from the Excel spreadsheets. Data submitted in other formats – 123Forms and TrashBlitz – from the 2019 brand audit were not included in the overall 2019 analysis. As a result, the 2019 global report analyzes the 484 events whose data was submitted via the Excel spreadsheets. In our global five year analysis in 2022, around 200+ events were added to the original 2019 value to include 123Forms and TrashBlitz data that had been omitted in the 2019 report by our previous data analyst. Most of the calculations and aggregations that were performed in the 5-year analysis are summations and counting of unique instances, and so are not impacted by this 2019 data adjustment.

Accessibility

From 2018-2022, select participants qualified for funds ranging from $300 to $600 USD to help cover the expenses associated with hosting a brand audit event.

Limitations

This report relies on self-reported data submitted by diverse participants from all over the world. The data submitted is a sample of global plastic waste and cannot claim to be fully representative of all plastic pollution. It is possible that some brands not captured in this report may produce even more plastic pollution than those listed in this report. The data reflect the plastic brands most commonly found in Asia, Europe, and North America where BFFP has a strong presence. Taking into account the 87 total countries and territories represented, the brand audit data results over the last five years give us a good indication of the most common brands found polluting communities around the world.

Endnotes

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61 Our top polluters are also the top producers, according to data from the 2022 Ellen MacArthur Foundation Global Commitment (see note 6). The top FMCG companies by revenue with the largest total weight of annual plastic packaging in metric tons is Coca-Cola Company (2,961,000), PepsiCo (2,350,000), and Nestlé (1,267,000) in 2020.

62 Norwegian University of Science and Technology. (2022, April 28). Scientists call for cap on production to end plastic pollution. ScienceDaily. https://www.sciencedaily.com/releases/2022/04/220428142653.htm

63 Break Free From Plastic. (2022, March 9). Celebrating our Global Brand Audit Community. https://www.breakfreefromplastic.org/2022/03/09/celebrating-our-global-brand-audit-community/