

EXECUTIVE SUMMARY

# THE BURNING QUESTION

WILL COMPANIES REDUCE  
THEIR PLASTIC USE?



tearfund

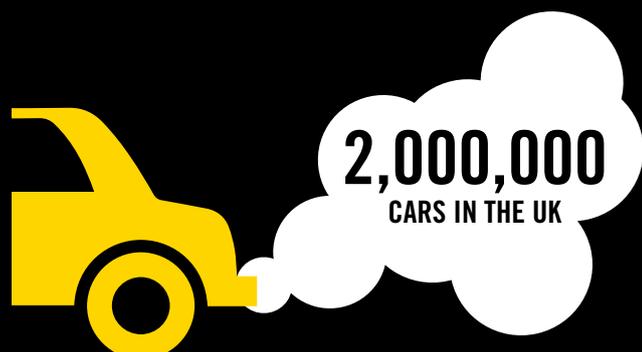


Tearfund is part of the global movement Renew Our World

**ACROSS JUST SIX COUNTRIES\***  
**COCA-COLA, NESTLÉ, PEPSICO AND UNILEVER**  
**CREATE ENOUGH PLASTIC POLLUTION\*\***  
**TO COVER 83 FOOTBALL PITCHES EVERY DAY\*\*\***



Open burning of their plastic pollution creates the same amount of CO<sup>2</sup> equivalent emissions as 2 million cars in the UK.



Emissions from open burning of Coca-Cola's plastic are as much as three-quarters of their global transport and distribution emissions.



\*China, India, the Philippines, Brazil, Mexico, Nigeria. \*\* Plastic dumped or burnt \*\*\*To a depth of 10cm

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# PLASTIC POLLUTION SCARS LANDSCAPES, FILLS OUR OCEANS AND HARMS THE HEALTH OF THE WORLD'S POOREST PEOPLE.

Nevertheless, global plastic production is still increasing,<sup>1</sup> and is set to double over the next ten to 15 years.<sup>2</sup> The steps being taken by companies and governments are a far cry from the action necessary to tackle a crisis of this magnitude.

This report focuses on the actions and responsibilities of four of the world's biggest plastic polluters: Coca-Cola, Nestlé, PepsiCo and Unilever.<sup>3</sup> At the time of writing these companies continue to sell billions of products in single-use bottles, sachets and packets in developing countries.<sup>4</sup> And they do this despite knowing that: 1) waste isn't properly managed in these contexts; 2) their packaging therefore becomes pollution; and 3) such pollution causes serious harm to the environment and people's health. Such actions – with such knowledge – are morally indefensible. Tearfund launched the *Rubbish Campaign* in May 2019 to urge companies to act, and all but Coca-Cola have made new commitments related to our asks. However, so far only Unilever has committed to reduce its total plastic use.\*

## PROGRESS ON COMPANY COMMITMENTS, SINCE MAY 2019



### COCA-COLA

Commitment to collect and recycle the equivalent of one bottle for every bottle sold by 2030 (on a country-by-country basis). However, no public commitments to reduce its overall or virgin use of plastic; also off-track on its collection commitment. Coca-Cola has however committed to disclose their global plastic footprint annually.



### NESTLÉ

Has made no clear public commitments to reduce its overall use of plastic but has committed to reduce virgin plastic by a third by 2025 and to invest 2 billion Swiss Francs in moving from virgin plastics to food-grade recycled plastic. It has committed to collect as much plastic as it sells in 12 countries, but at the time of writing the names of those countries are not publicly available. Nestlé has however committed to disclose their global plastic footprint annually.



### PEPSICO

Commitment to reduce the use of virgin plastic in its bottles by 20 per cent (2018 baseline) by 2025. However, no commitment on collection and no public commitments to reduce its overall use of plastic. PepsiCo has however committed to disclose their global plastic footprint annually.



### UNILEVER

Commitment to reduce virgin plastic by 50 per cent (2018 baseline by 2025), and total plastic by a sixth; commitment to collect at least as much plastic as it sells in each market by 2025; disclosure of global plastic footprint annually.

\*See our campaign league table at [tearfund.org/rubbishcompanies](https://tearfund.org/rubbishcompanies)

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### REUSE VS RECYCLING

Most of the companies focus on recycling, rather than reduction, as the way to address the problem. This is a mistake. Collection and recycling are an important part of the transition, but the right long-term approach is to replace single-use plastic with refillable and reusable alternatives. These are preferable for three key reasons:

**1** Reusable and refillable packaging preserves more of the value and natural resources embedded in each bottle and box. By contrast, recycled single-use plastic is typically downcycled into synthetic fabrics, which then become waste again. Furthermore, downcycling maintains a continued need for virgin plastic, with the associated environmental costs.

**2** From a technical and economic perspective, it is questionable whether it is possible actually to recycle such a large and ever-increasing volume of plastic. Only 14 per cent of plastic packaging is collected for recycling annually<sup>5</sup>, and even in developed countries, recycling capacity often falls far short of total plastic use.

**3** The challenges associated with recycling such a large amount of plastic are instead likely to lead to an increased emphasis on incineration. This generates potentially harmful emissions, including greenhouse gases. It is not a cost-effective or safe solution in developing countries, where capacity to manage and regulate incinerators is low, and the potential for major pollution is therefore greatly increased.

““ Only 14 per cent of plastic packaging is collected for recycling annually, and even in developed countries, recycling capacity often falls far short of total plastic use ””

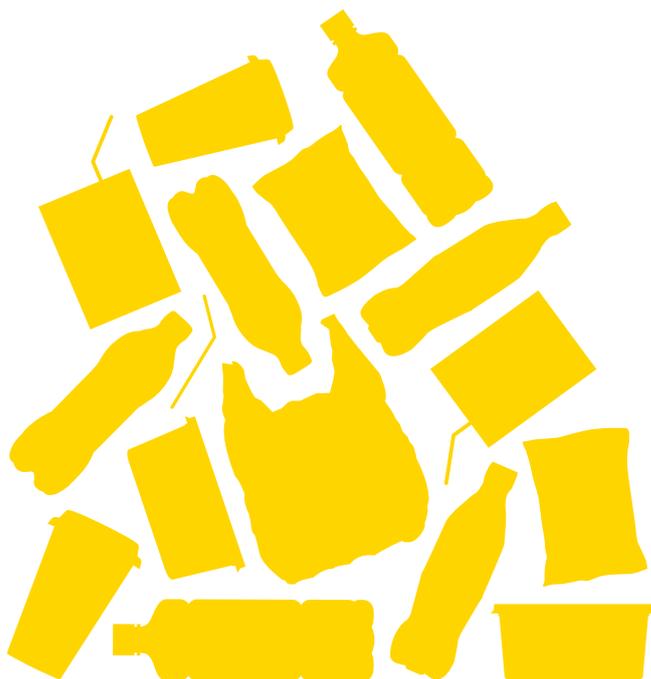
### COCA-COLA, NESTLÉ, PEPSICO AND UNILEVER'S PLASTIC POLLUTION FOOTPRINT (THAT'S PLASTIC THAT IS DUMPED OR BURNT)

In 2019, Coca-Cola, Nestlé, PepsiCo and Unilever published their global plastic footprint. However, the companies have not yet disclosed their plastic packaging on a country-by-country basis (one of the calls of Tearfund's *Rubbish Campaign*). We have therefore attempted to do this for them for some countries. Our methodology has been independently reviewed by Resource Futures and leading academics in the field of solid waste management.

We have calculated a reasoned estimate of the plastic packaging used and sold by each company in six countries spanning three continents – China, India, the Philippines, Brazil, Mexico and Nigeria.<sup>6</sup> We shared this methodology with each company in December 2019 to give them an opportunity to respond.

We then use data collated by the World Bank and other sources to calculate the amount of the companies' plastic that is mismanaged – ie burnt<sup>7</sup> or dumped – in each country.

**We calculate that across all six countries, Coca-Cola, Nestlé, PepsiCo and Unilever are responsible for more than half a million tonnes of plastic pollution every year. This is enough to cover 83 football pitches every day (to a depth of 10cm). That's more than one football pitch every 20 minutes. This is the first time such estimates have ever been made.**



COCA-COLA, NESTLÉ, PEPSICO AND UNILEVER ARE RESPONSIBLE FOR MORE THAN HALF A MILLION TONNES OF PLASTIC POLLUTION (THAT'S PLASTIC DUMPED OR BURNT) EVERY YEAR



## COCA-COLA

200,000 tonnes per year,  
or 33 football  
pitches every day



## NESTLÉ

95,000 tonnes per year,  
or more than 15 football  
pitches every day

83

FOOTBALL PITCHES  
COVERED EVERY DAY



## PEPSICO

137,000 tonnes per year,  
or 22 football  
pitches every day



## UNILEVER

70,000 tonnes per year,  
or more than 11 football  
pitches every day



# THE PLASTIC CRISIS IS A CLIMATE CRISIS

## EXECUTIVE SUMMARY

### PLASTIC CRISIS, CLIMATE CRISIS

This massive plastic pollution footprint, while a crisis in and of itself, is also contributing to the climate crisis. New academic analysis suggests that the greenhouse gas emissions<sup>8</sup> from the open burning of waste could be highly significant. In this report, we present the first estimates of these emissions for each company in our six focus countries. They give an indication of the scale of the problem. If all developing countries were included, the totals could be significantly higher.

The emissions quantities are calculated by estimating the proportion of each company's mismanaged plastic that is openly burnt, and combining these amounts with emissions factors for three different types of plastic. Emissions of both black carbon<sup>9</sup> and carbon dioxide are considered. This is because waste management experts view black carbon as a particular cause for concern. Our methodology is described in Appendix 2 of the full report. It has been independently reviewed by the two lead authors of the academic paper we rely on for our emissions factors.

**Coca-Cola emerges as by far the worst polluter of the four, with emissions greater than the other three combined.** This is despite being the smallest company of the four in terms of sales revenue, and is largely because they use so much plastic per dollar of sales: more than twice as much as PepsiCo, and seven times as much as Unilever. In light of this, it is alarming that Coca-Cola have resisted calls to reduce their dependence on single-use plastic.

**Burning of Coca-Cola's plastic in these six countries creates emissions equivalent to 2.5 million tonnes of carbon dioxide. That's the same as three-quarters of their global transport and distribution emissions.**

**All together, across the six countries, 4.6 million tonnes of carbon dioxide equivalent emissions are produced from the open burning of Coca-Cola, Nestlé, PepsiCo and Unilever's plastic pollution. Preventing these emissions would equate to taking 2 million cars off the UK's roads.**

At present, the four companies make little or no mention of emissions from disposal of their products or packaging in their climate change commitments.



📷 Royda Joseph with her son Victor.  
Photo: Daniel Msirikale/Tearfund

### PLASTIC CRISIS, HEALTH CRISIS: A FOCUS ON TANZANIA

The plastic pollution being caused by Coca-Cola, Nestlé, PepsiCo and Unilever also contributes to a waste crisis that directly harms people's health. In our 2019 report *No time to waste*, we presented evidence to suggest that between 400,000 and 1 million people die each year in developing countries because of diseases related to plastic and other mismanaged waste. At the upper end, that is one person every 30 seconds. In *The Burning Question* we look at the reality of the impact of mismanaged waste, including plastic pollution, on the health and lives of a number of people living in Dar es Salaam, Tanzania's largest city.

**Royda Joseph is 32 years old.** She has three children and lives with her family in a community situated next to the Pugu-Kinyamwezi rubbish dump. The dump is frequently on fire. It is very dusty, and litter – including plastic – is spread throughout the community, attracting huge amounts of flies.

'The dump is on fire every two days,' says Royda. 'Sometimes, when it is on fire, the smoke is so dark and huge that you can't see the person in front of you or the house next to you. Because of that smoke I get breathing problems and coughing, and eye problems too. The kids also get a lot of breathing problems: they cough a lot. When it is really bad, there is no way that you can deal with it without going to the hospital.'

'The smoke and the fire come when the weather is very dry and the gases are coming out of the fire... When the dump is on fire, it can take one to two hours until they call the fire brigade to come here and try to stop it. It is that bad. Sometimes it can take two to three hours because of the traffic.'

The smoke is sometimes so thick that Royda needs to leave her home. 'Many times when the dump is on fire and really bad, when the smoke is so heavy, I shift to my relatives for a time,' she says. 'When it is so bad that you can't see what is in front or behind...'

Royda is concerned for her children's future. 'I am worried about my children's health because always when it is very dry, the smoke always comes. I am sure in the long run they will develop health complications.'

## EXECUTIVE SUMMARY

**Pressure is building.** Out-dated packaging models will leave companies increasingly exposed. **The tide of public opinion has turned, and governments are legislating as a result.**

Refill and reuse delivery mechanisms are being adopted in some contexts. On the whole, however, examples of multinational companies adopting alternative delivery mechanisms in developing countries are still few and far between. There are a few positive cases showing what is possible, such as Unilever using Algramo's mobile dispensing delivery system to offer refills to customers in Chile and the use of returnable Coca-Cola PET (polyethylene terephthalate) bottles in Brazil being scaled up. **These examples show moving to refill and reuse models is possible when the solution is well tailored to the context** and there are decision-makers in companies who are willing to think outside the (single-use plastic) box.

**Citizens also want change.** A new survey of 2,000 adults in India conducted for Tearfund by Savanta ComRes in December 2019 found that:

**86%**

86 per cent of adults rated plastic pollution as a serious or very serious concern;<sup>10</sup>

**91%**

91 per cent say they are more concerned about plastic pollution now than they were three years ago; and

**90%**

nine in ten respondents say they would be likely to buy their products in refillable or reusable containers if it led to significantly less plastic pollution in their community and if the cost was the same.

A 2019 international survey of customer attitudes (unfortunately excluding Africa) showed that **consumers believe manufacturers have the most responsibility to act on plastic waste in the environment and should take the lead.** Those surveyed asserted that 'making changes to account for this is clearly a matter of "when" rather than "if" for all businesses'.<sup>11</sup> It also showed that the majority of people surveyed globally were taking regular action to reduce their own use of single-use plastic.

More and more countries are introducing bans on various types of plastic packaging. As of July 2018, 127 countries globally had brought in some form of legislation to address the problem of single-use plastic bags. Increasing numbers of countries are also banning or taxing other types of single-use plastics. However, there are reports of companies lobbying against mandatory measures which would threaten their profit margins.

Rather than spending their money on lobbying against inevitable legislative change, **it makes more sense for companies to invest in piloting and scaling up quickly refill and reuse delivery models that will reduce plastic pollution and future-proof their business.**

## RECOMMENDATIONS

Coca-Cola, Nestlé, PepsiCo and Unilever all claim to be concerned about global health and climate change. However, in order to honour these climate and health ambitions, companies need to reduce dramatically the production and selling of single-use plastic packaging, and switch to refillable and reusable packaging. We have produced a separate league table showing the latest progress companies have made towards our recommendations.

See [tearfund.org/rubbishcompanies](http://tearfund.org/rubbishcompanies)

### Coca-Cola, Nestlé, PepsiCo and Unilever should:



**REPORT**, by the end of 2020, on the number of units of single-use plastic products they use and sell in each country



**REDUCE** this amount by half, country by country, by 2025, and instead use environmentally sustainable delivery methods such as refillable or reusable containers



**RECYCLE** the single-use plastics they sell in developing countries, ensuring that by 2022 one is collected for every one sold, as part of adequate systems for collection, reuse, recycling and composting in communities that currently lack these systems<sup>12</sup>



**RESTORE** dignity through working in partnership with waste pickers to create safe jobs. Around the world, there are numerous examples of companies partnering with waste pickers to establish collection and recycling systems that are good for society and the environment.<sup>13</sup>



**THE CHALLENGE IS CLEAR:**  
**COMPANIES NEED TO STEP UP THE PACE**  
**AND SCALE OF THEIR ACTION ON PLASTIC**

**THE BURNING QUESTION IS:**  
**ARE THEY UP TO IT?**

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# 4 PLASTIC POLLUTERS 6 COUNTRIES 1 BURNING QUESTION...

**WILL THESE COMPANIES REDUCE  
THEIR PLASTIC USE?**



## ENDNOTES

- 1 Senet S (2019) 'Plastic production on the rise worldwide but slowing in Europe', Journal de l'environnement, 5 Jun 2019, <https://www.euractiv.com/section/energy-environment/news/while-global-plastic-production-is-increasing-worldwide-it-is-slowin-down-in-europe/>
- 2 UNEP (2018) Single-use plastics: a roadmap for sustainability, <https://wedocs.unep.org/handle/20.500.11822/25496>
- 3 In order to stop plastic pollution, we need actions far beyond just the four companies we focus on here. In *No time to waste* (Tearfund, 2019), we highlighted the wider actions we believe governments and citizens need to take. These include investing in waste management and limiting the worst forms of single-use plastic. Yet, as we lay out in this report, there is an irrefutable moral case for the world's largest companies to act and lead now to reduce dramatically their plastic footprint.
- 4 In the executive summary of this report we use the terms 'developing countries' and 'developed countries'. We recognise the limitations with these terms – not least the wide range of economic circumstances included when grouping low-income, lower-middle income and upper-middle income countries as 'developing' – but think that on balance these are the best terms to use in order to keep the language of the executive summary clear and accessible. In the full report we use the terms low-income, middle-income and high-income, because much of the analysis we have used (for example from the World Bank) uses these descriptors for country grouping.
- 5 World Economic Forum, Ellen MacArthur Foundation and McKinsey & Company (2016) *The new plastics economy – Rethinking the future of plastics*, <http://www.ellenmacarthurfoundation.org/publications>
- 6 We only have PepsiCo figures for its beverage sales in Nigeria.
- 7 In this context, burning does not refer to incineration, but burning in backyards, streets and dumpsites.
- 8 We use this as a catch-all term for all climate emissions, including black carbon.
- 9 Black carbon is a short-lived climate pollutant that remains in the atmosphere for just one or two weeks, but has a warming effect so powerful that it heats the globe 2,200 times more than an equivalent amount of carbon dioxide.
- 10 Rating this 8 or above on a 10-point scale (where 1 = not at all a concern and 10 = very serious concern)
- 11 Kantar and Europanel (2019) Who cares, who does? Consumer response to plastic waste, <https://www.kantarworldpanel.com/global/News/Who-Cares,-Who-Does-Consumer-response-to-plastic-waste#downloadThankyou>
- 12 Ideally companies should work with governments to establish mandatory Extended Producer Responsibility (EPR) schemes, but in the short term, voluntary EPR schemes – coordinated with government – can allow rapid progress.
- 13 We don't discuss the context for this recommendation in detail in this report, but more information can be found in Tearfund (2019) *No time to waste: tackling the plastic pollution crisis before it's too late*, [www.tearfund.org/notimetowaste](http://www.tearfund.org/notimetowaste)

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DAYS. SOMETIMES, THE SMOKE IS  
SO DARK AND HUGE THAT YOU  
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YOU OR THE HOUSE NEXT TO YOU.  
I GET BREATHING PROBLEMS AND  
COUGHING, AND EYE PROBLEMS TOO.  
THE KIDS COUGH A LOT.'**

**ROYDA JOSEPH, TANZANIA**

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Tearfund is part of the global movement Renew Our World

Tearfund is a Christian relief and development agency working with partners and local churches to bring whole-life transformation to the poorest communities.

Tearfund is part of **Renew Our World**, a global movement of Christians calling for a more just and sustainable planet for all.

Cover image: A smouldering open dumpsite in Dar es Salaam, Tanzania.  
Photo: Daniel Msirikale/Tearfund

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Many thanks to Prof David Wilson, Dr Natalia Reyna-Bensusan and David Lerpiniere (Resource Futures) for reviewing the report and methodology. Thanks also to Paul Cook, Zoë Lenkiewicz (WasteAid), Sue Willsher, Melissa Barnston, Clare Lyons, Seren Boyd and Simon Martin for their contributions and comments.

All facts, figures and claims in this report are as at the last date they were checked.

This is a summary of the full report, available at [tearfund.org/theburningquestion](https://tearfund.org/theburningquestion)

**[learn.tearfund.org](https://learn.tearfund.org)**

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