

## Charging for all single use items: Link Waste & Resources Policy briefing

*Briefing prepared ahead of Lords stages of the Environment Bill in June 2021. The briefing makes the case for broadening the power proposed in Clause 54 of the bill to charge for single use plastic items so that it covers all single use items.*

### Executive Summary

While new powers to charge for single use plastic items are welcome, these powers should be amended to include all single use items to avoid unnecessary environmental harm:

- The narrow focus on plastics risks incentivising substitutions of plastic for other single use materials. We recommend widening the power to cover all single use items.
- To take one example, switching all current consumption of plastic packaging on a like for like basis to the other materials currently used for packaging could almost triple associated carbon dioxide (CO<sub>2</sub>) emissions, harming the UK's goal to achieve net-zero emissions by 2050.
- All materials have associated environmental costs. For example, aluminium production uses the most water on a per kilogram basis of any packaging material and paper produced for the UK market uses the most water overall.
- The ability to charge for all single use items would support the government's Waste Prevention Programme aim to encourage reuse and refill; a sustainable and effective solution to cutting waste and resource use.
- This amendment would not place a requirement on Government to charge for non-plastic single use items, but rather grant Ministers the ability to introduce charges as necessary as we gain a better understanding of the harmful impacts of our consumption.

Plastic can have a devastating effect on the natural world, both in its production and in its lasting direct effects as waste and pollution. However, tackling plastic pollution in isolation may have perverse effects, shifting and even increasing environmental damage by increasing the use of other materials. It is not simply single-use plastic use that must be reduced—it is the overall excessive consumption of single-use items.

The Government's proposal to reduce single-use plastic consumption by imposing charges to internalise the costs of environmental damage is positive, but it risks causing unintended environmental damage unless the power is extended to cover other single-use items.

The UN has reported that resource extraction and processing causes 90% of global biodiversity loss and water stress, as well as 50% of overall carbon emissions.<sup>1</sup> Over 11 million tonnes of packaging are placed on the UK market each year.<sup>2</sup> To reduce our impact on the natural world, the UK must therefore

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<sup>1</sup> UN International Resource Panel, 2019, Global resources outlook 2019: natural resources for the future we want

<sup>2</sup> [https://consult.defra.gov.uk/waste-and-recycling/waste-prevention-programme-for-england-2021/supporting\\_documents/Waste%20Prevention%20Programme%20for%20England%20%20consultation%20document.pdf](https://consult.defra.gov.uk/waste-and-recycling/waste-prevention-programme-for-england-2021/supporting_documents/Waste%20Prevention%20Programme%20for%20England%20%20consultation%20document.pdf)

reduce its resource use, including for packaging and other single use items. However, the Environment Bill’s narrow focus on plastics risks increasing resource use, shifting environmental and social burdens onto other supply chains as plastic is substituted for other materials.

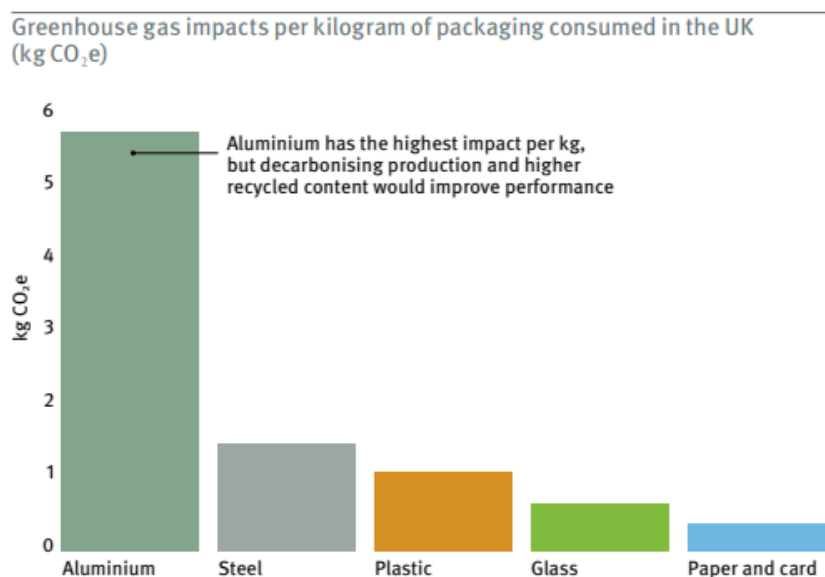
In practice, this means substituting plastic for alternatives like steel, aluminium or glass which, at present, have an overall environmental impact (be that CO<sub>2</sub> emissions, the impact of mining, or associated water stresses) which is often greater than the plastic they replace (though there are opportunities through greater recycling to reduce the impact of these materials).

A focus on the very visible end-of-life blight of plastic pollution should not obscure the impacts that occur throughout the lifecycle of all materials. The solution is to disincentive all single-use items, no matter what material they are made from, rather than focusing on plastics alone. This should be accompanied by Government support for new models of consumption based on refillable and reusable items.<sup>3</sup>

### Why non-plastic single use items cannot be defined as ‘sustainable’:

#### 1. Carbon Dioxide emissions

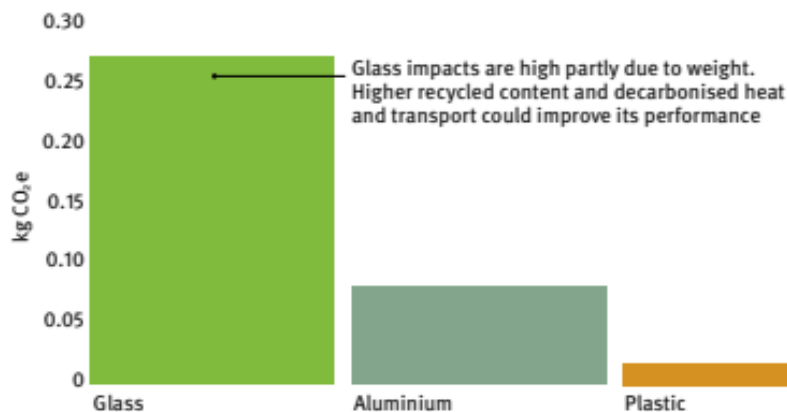
Non-plastic single use items have CO<sub>2</sub> emissions that are often greater than equivalent plastic items. Based on current levels of recycled content, aluminium is by far the most carbon intensive material type per kilogram of packaging, followed by steel and plastic.<sup>4</sup> Glass is the most carbon intensive material for a 500ml drinks container.



<sup>3</sup> See [https://green-alliance.org.uk/resources/Fixing\\_the\\_system.pdf](https://green-alliance.org.uk/resources/Fixing_the_system.pdf)

<sup>4</sup> Ibid

Representative greenhouse gas impact of material used to make a 500ml drinks container



Switching all current consumption of plastic packaging (1.6 million tonnes) on a like for like basis, to the other materials currently used for packaging in the UK could almost triple associated carbon emissions from 1.7 billion tonnes CO<sub>2</sub>e to 4.8 billion tonnes CO<sub>2</sub>e.<sup>5</sup>

## 2. Increased resource extraction

While materials such as aluminium and glass could reduce their environmental impact with greater recycling and decarbonised production over time, given their present impact the planet could not sustain a significant shift of single use consumption to these more resource intensive materials:

- Our overall resource consumption is already too high. The UN has suggested that per person overall resource consumption should be between six and eight tonnes a year. In the UK, average per person consumption is already 14.7 tonnes.<sup>6</sup>
- The total UK plastic packaging demand is calculated to be 2.34 million tonnes for 2018.<sup>7</sup> Given that a 330ml plastic soft drink bottle contains around 18g of material while a glass bottle contains between 190g and 250g of material, it is clear how material substitutions could substantially increase resource use.<sup>8</sup>
- A shift of only 1% of global soft drinks, beer and bottled water from plastic and glass to aluminium cans could increase aluminium demand by around 310,000 tonnes.<sup>9</sup>

## 3. Impacts of resource extraction on the natural environment and human health

<sup>5</sup> Ibid

<sup>6</sup> [https://green-alliance.org.uk/resources/Targeting\\_success.pdf](https://green-alliance.org.uk/resources/Targeting_success.pdf)

<sup>7</sup> "UK's Global Packaging Material Footprint" report for Tesco and WWF, May 2021

<sup>8</sup> <https://www.bbc.com/worklife/article/20180705-whats-the-real-price-of-getting-rid-of-plastic-packaging>

<sup>9</sup> <https://www.reuters.com/article/us-environment-plastic-aluminium-insight-idUSKBN1WW0J5>

Non-plastic items often have high environmental and social costs resulting from their extraction and production:<sup>10</sup>

- Aluminium production uses the most water on a per kilogram basis of any packaging material and paper produced for the UK market uses the most water overall.<sup>11</sup>
- Aluminium production requires bauxite and Guinea, which has the world's largest bauxite deposits, has seen reports of human rights abuses related to bauxite mines.<sup>12</sup>
- Aluminium production creates 'red mud'; a residue left over from the refining process. Globally, it is estimated that 3 billion tons of red mud are stored in large waste ponds or dried mounds.<sup>13</sup> Red mud contains a cocktail of hazardous substances which are difficult to deal with; in 2010 a spill of this sludge killed seven and injured many more in an incident in Hungary.<sup>14</sup>
- Brazil is a major exporter of the iron ore used for steel<sup>15</sup> but two mines there have seen dam failures in recent years; the Mariana dam disaster in 2015 and the Brumadinho dam disaster in 2019. The latter incident killed 270 people and caused huge environmental damage.<sup>16</sup>
- In general, a lack of transparency in supply chains means it is frequently difficult to fully calculate how impactful material sourcing really is.

### **Government principles support the prevention of all waste:**

The Government's Waste Prevention Programme proposes that Government will be "consulting on potential bans on other single-use plastic items" and notes that "impact assessments for future bans on single-use plastics will continue to assess the potential for substitution to single-use items made of other materials" This raises the possibility that the Government will identify substitutions occurring to other materials but will lack the legal powers to impose charges on these items.

In addition, the Waste Prevention Programme prioritises a focus "on the top of the waste hierarchy, which means increasing reuse, repair and remanufacture". It also aims to "provide the incentives, through regulatory or economic instruments if necessary and appropriate, and ensure the infrastructure, information and skills are in place, for people to do the right thing".

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<sup>10</sup> For a comprehensive account of these impacts see Eunomia's "UK's Global Packaging Material Footprint" report for Tesco and WWF, May 2021

<sup>11</sup> [https://green-alliance.org.uk/resources/Fixing\\_the\\_system.pdf](https://green-alliance.org.uk/resources/Fixing_the_system.pdf)

<sup>12</sup> <https://www.hrw.org/report/2018/10/04/what-do-we-get-out-it/human-rights-impact-bauxite-mining-guinea>

<sup>13</sup> <https://www.sciencemag.org/news/2020/08/red-mud-piling-can-scientists-figure-out-what-do-it>

<sup>14</sup> [https://www.bbc.co.uk/news/world-europe-](https://www.bbc.co.uk/news/world-europe-11492387#:~:text=About%2040%25%2D45%25%20of,that%20owns%20the%20Aikai%20plant)

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<sup>15</sup> <https://news.metal.com/newscontent/100712842/UK's-iron-ore-imports-surged-in-September%3B-YTD-exports-down-30>

<sup>16</sup> <https://www.bbc.co.uk/news/business-55924743>

These principles and measures would all be supported by Government having the ability to charge for all single-use items.

**Tackle all single use materials to protect the natural world:**

Taking a narrow focus on plastics will not deliver the changes necessary for meaningful improvements to our natural world, at home or abroad. In fact, substitutions of materials risk exacerbating the environmental problems in materials supplies which future generations will have to address. Ministers are limiting their ability to drive positive change with an unnecessarily narrow approach towards single use items. We recommend the power is broadened to allow charges to be imposed on all kinds of single-use materials.

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*Wildlife and Countryside Link (Link) is the largest environment and wildlife coalition in England, bringing together 58 organisations to use their strong joint voice for the protection of nature. This briefing is supported by the following Link members:*

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