

Amsterdam, 18 January 2023

Dear Rita Pinho Rodrigues,

Thank you for DECO PROTESTE's detailed reply to our critical questions regarding your conclusion that a plastic LDPE bag is, environmentally speaking, the best option. We still disagree and hope to convince you of our point of view as listed below.

You write that 'the likelihood of shopping carriers being disposed of by consumers directly in the environment becomes very low' because all four examined countries (Portugal, Spain, Italy and Belgium) have systems in place that 'ensure the collection and management of products when they reach the end-of-life.'

1. First of all, this is a very Eurocentric point of view. It ignores the fact that the EU is the world's largest exporter of plastic waste. And, apart from legal waste streams (such as those included in the UN COMTRADE database), there is also a sizeable illegal trade in plastic waste. In 2020 Interpol noted a substantial rise in criminality connected to the trade in plastic waste. In recent years, ever more plastic has been dumped under the name of 'recycling'. In 2021 The EU exported 887,452,255 kilos of plastic waste to non-OECD countries.
2. Officially this plastic waste is meant to 'be recycled', but these countries do NOT have the needed plastic waste management systems in place, and our European plastic trash does indeed end up in the environment in other parts of the world. Please read [our report on plastic export](#) published last year and the [upcoming revision of the EU rules on this](#).
3. Also, in Europe itself there is minimal LDPE recycling capacity since the often multilayered LDPE foils are very complex to recycle, the market for the relatively expensive recycled products is small, and the LDPE that gets recycled is mostly downcycled. Closed loop systems for LDPE are simply impossible.
4. Recycling is NOT the answer. Worldwide less than 10% of all plastic waste gets recycled. The incineration of plastic waste releases significant greenhouse gasses into the atmosphere alongside toxic pollutants, leaving us with 20% of the plastic waste turned into ashes that must be disposed of. Other disposal methods, including recycling, also come with their share of emissions. The expansion of plastic production is estimated to emit over 56 billion Mt of carbon-dioxide-equivalent (CO₂e) in GHGs between 2015 and 2050, which is [10–13% of the entire remaining carbon budget](#).

Also, you write: 'There is currently no LCA calculation method that quantifies the environmental impacts of the release of microplastics, which is why it is a limitation to our study and others on the subject.'

We strongly feel that, given the amount of European plastic waste ending up in the environment of non-OECD countries, the problem of degradation of plastic into

microplastics – even though hard to measure – should be considered when concluding the environmental impact of LDPE bags.

Regarding the usefulness of LCAs to measure the environmental impact of products, we conclude that the LCA methodology is inadequate as long as the damage caused by plastic in the environment is not taken into account. As a result, plastic always emerges as the most environmentally and climate-friendly option. No wonder the European plastics industry has welcomed your report.

We would very much appreciate you sharing with the European consumers our expert opinion on the LDPE bag NOT being the best option.

A handwritten signature in blue ink, appearing to be 'Maria Westerbos', written over a light blue grid background.

Maria Westerbos
Director-Founder Plastic Soup Foundation

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SOUP** FOUNDATION