E4Impact & VIS - Volontariato Internazionale per lo Sviluppo

The Pandemic of Plastic: Challenges and Opportunities in policy-making

Plastics, Eco-poverty and the Circular Economy



Global plastics demand 2015-2100

PLASTICS DEMAND WILL INCREASE SIGNIFICANTLY



Chart: Material Economics - CIRCULAR ECONOMY – A POWERFUL FORCE FOR CLIMATE MITIGATION (2018) https://materialeconomics.com/publications/the-circular-economy-a-powerful-force-for-climate-mitigation-1 Annual global plastic production has exploded from some 1.5 million metric tons in 1950 to **359 million metric tons** in 2018 (almost 50 kg per person!)

Source: Statistica https://www.statista.com/topics/5401/glob al-plastic-waste/



Global plastic flows

Over two-thirds of all plastics ever made have been discarded, and only 6 percent of plastics have ever been recycled



Plastic consumption by stage, Gigatonnes (Gt)

Global production, use, and fate of polymer resins, synthetic fibres, and additives (1950 to 2015; in million metric tons). Source: **Geyer R, Jambeck, JR and Law KR (2017) Production, use, and fate of all plastics ever made,** *Science Advances* (19 Jul 2017), Vol. 3, no. 7, DOI: 10.1126/sciadv.1700782



Fast-fashion relies on cheap, fossil fibres





OF ALL MATERIALS USED IN TEXTILES ARE **SYNTHETICS**¹



FASHION PRODUCTION HAS **DOUBLED** SINCE 2000¹

0.19

MILLION TONNES OF **MICROFIBRES** RELEASED EVERY YEAR - 20% OF PRIMARY OCEAN MICROPLASTICS²

1 Changing Markets – Synthetics Anonymous: fashion brands' addiction to fossil fuels (2021 <u>https://changingmarkets.org/portfolio/fossil-fashion/</u> 2 Henry, Laitala, Klepp (2019) Microfibres from apparel and home textiles: prospects for including microplastics in environmental sustainability assessment, Science of the Total Environment, <u>www.elsevier.com/locate/scitotenv</u>



SACK ΓHΕ SACHE



A PLASTIC PLANET

If you put a year's worth of single-use sachets end-to-end, they would reach the moon 189 times. The **855 billion packets used annually** house everything from condiments such as ketchup to personal care products like shampoo.

We are **calling for a ban on sachets** in an open letter signed by Princess Esmeralda of Belgium, UN Secretary-General's Special Envoy for the Ocean Peter Thomson, Iceland Foods' Managing Director Richard Walker, TimeOut Group CEO Julio Bruno, and financier Ben Goldsmith and others to urge politicians and global business leaders to work together to ban the sachet. Source: https://aplasticplanet.com/inspiring-change/campaigns/





#ecopoverty Indonesia - photo by Tom Fisk from Pexels

Regulations – too little, too late?

Australia

- ✓ Optimizing recovery and recycling
- Target for 100% to be recyclable, compostable or reusable

Canada

- ✓ Strategy for Sustainable Packaging
- Strategy on Zero Plastic Waste
 (2030 goal, passed in 2018)

China

- ✓ Banned/limited packaging waste imports in 2017
- Proposal to ban single-use plastic bags by 2022
- ✓ Regulation in place
- Recent moves/next steps on regulations

The drive toward sustainability in packaging—beyond the quick wins January 30, 2020 |McKinsey https://www.mckinsey.com/industries/paper-forest-products-and-packaging/our-insights/the-drive-toward-sustainability-in-packaging-beyond-the-quick-wins#

European Union

- ✓ Packaging Waste Directive
- Single-Use Products directive (with bans on selected products)

India

- Laws favour recyclable materials and formats
- Aiming to increase awareness campaigns and collection points

United States

- Key jurisdictions implement bans on plastic bags
- Bills to reduce single-use packaging waste and increase recycling



Incineration is not the answer



"Waste-to-energy" and other forms of incineration release toxic substances such as dioxins, furans, lead, mercury, acid gases, and particulate matter. Workers and nearby communities, most often low-income communities, face the greatest health risks associated with toxic air emissions, ash, and wastewater.



False solution - chemical recycling and 'plastic to fuel'





'Bio' won't solve the problem



Source: Zero Waste Europe and Rethink Plastics <u>https://zerowasteeurope.eu/wp-</u> content/uploads/2019/11/rethink plastic infographic bioplastics wont solve the plastic pollution en.pdf

Biodegradable plastics



INDUSTRIALLY COMPOSTABLE?

Only if your area has industrial composting infrastructure & you know the right bin. If not, **the plastic will** end up in landfill, incinerators or the environment.



SOIL BIODEGRADABLE? Current uses such as covering of crops still contribute to **plastic pollution.**



HOME COMPOSTABLE? It can take **up to 1 year per item,** and only if you have access to a home or community composter which is well managed.



MARINE BIODEGRADABLE? No adequate scheme to prove it. Still impacts sealife. Why would we design products to end up in the ocean?

Create, circulate and share value

Design products and systems to care for and conserve resources, and avoid pollution and waste

- 1. Keep in use for longer *use less*
- 2. Use it again and again *get more from less*
- 3. Keep it in circulation *close the loop*
- 4. Use safe, sustainable materials, and less of each *resource efficiency*

Breaks the link between resource use, pollution & emissions and good living standards – shrink our footprint







The Circular Checklist.

Choose Recycled. Challenge Longevity. Check Recyclable.

We all have a choice despite what is in front of us. If it isn't matching up to your circular checklist then scroll on to the next page, there is always a next page. You have that power! Algramo





Algramo's technology makes refills easy and Covid-secure. Image with kind permission from Algramo.com



we believe refilling is better than recycling



Order full bottles from our great range of cruelty free home and personal care products.

Hand wash gets

When you're running low, order refills online - and we'll deliver them to your door for free.



Subscribe...and relax! You'll never run out of refills again. Even better, you've stopped binning bottles.















Shower gels

Luxurious shampoo

Moisturising conditioner

CIRCULAR COMPUTINGTM 'THE WORLD'S FIRST REMANUFACTURED CARBON-NEUTRAL LAPTOPS'



"If you could buy the most ethical & sustainable laptops in the world, with 97% of the performance of the latest models and save a significant amount on the price, what would stop you?"







IBM

Cognition Foundry



We are stopping ocean plastic while improving the lives of those who help collect it

Total plastic recycled

24,921,579 kg

Recycled last year

17,448,063 kg

Active Plastic Bank Locations

548

Source: https://plasticbank.com/

Recycling Plastic | Creating Green Jobs | Empowering People

We're creating innovative items from waste - from something that was previously considered worthless.

We give trash a value...



Compared to their traditional counterparts, our products are:



More environmentally-friendly

Certified

Cheaper

\square	Lighter
\square	More durab



Eco-Products & Sustainability

We recycle the plastic brought to us into a variety of new items, which we then sell to generate funds. With this revenue, we can continue to purchase plastic from the community.

Hence, our closed-loop system in action - allowing us to recycle plastic and create job opportunities in a sustainable way

Source: https://www.ecobrixs.org/







Breakaway Corners \$6.00



Corner Block from \$1.75

Single Bottle Wine Shipper



Seed Starter \$2.50



Thermal packaging



Plumo the world's first SUSTAINABLE THERMAL PACKAGING made from FEATHERS

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Created By Nature, Driven By Science

http://www.woolcool.com



Circular economy - benefits



- Value & affordability
- Convenience
- Smaller footprint
- Shared ethics
 & values

Planet • Less resources • Less destruction • Less waste, pollution & emissions

• Brand value

Rethink www.rethinkglobal.info

A fair, circular economy

Create, circulate and share value

- Design systems to care for and conserve resources, and avoid waste
- Use less, get more from less, use it again and again – shrink our footprint
- Breaks the link between resources and good living standards



Questions?

"This is a book for everyone in business, or who wants to shape the future of business. The circular economy is the best toolkit we have for future sustainable business and this book leads you through what it is and why so many businesses and governments are getting on board." *Tom Szaky, Founder & CEO, TerraCycle*

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CATHERINE WEETMAN



CircularEconomyPodcast.com with Catherine Weetman



Further reading

- Talking Trash: the corporate playbook of false solutions to the plastic crisis September 2020 This report investigates industry tactics in the face of an unprecedented plastic pollution crisis and growing public pressure to address it. Based on research and investigations in over 15 countries across five continents, it reveals how behind the veil of nice-sounding initiatives and commitments the industry has obstructed and undermined proven legislative solutions for decades. We have critically analysed voluntary commitments from the biggest plastic polluters (Coca-Cola, Colgate-Palmolive, Danone, Mars Incorporated, Mondelēz International, Nestlé, PepsiCo, Procter & Gamble, Perfetti van Melle and Unilever), dissected the most prominent group initiatives (some of them championed by governments and NGOs) and revealed how companies across the plastic supply chain from the oil industry to consumer brands and retailers really act behind the scenes. Our case studies show that not only have voluntary initiatives failed to contain the plastics crisis, but also that companies have used these initiatives as a tactic to delay and derail progressive legislation all while distracting consumers and governments with empty promises and false solutions. https://changingmarkets.org/portfolio/talking-trash/
- A Greenpeace USA report (2019), <u>Throwing Away the Future: How Companies Still Have It Wrong on Plastic Pollution "Solutions,"</u> warns consumers to be skeptical of the so-called solutions announced by multinational corporations to tackle the plastic pollution crisis. These false solutions, such as switching to paper or 'bioplastics' or embracing chemical recycling, are failing to move us away from single-use packaging and divert attention away from beneficial systems that prioritize refill and reuse.
- The Ex'Tax Project https://ex-tax.com/ including a paper on the Amsterdam City Doughnut Economics and Ex'Tax https://assets.amsterdam.nl/publish/pages/941443/pb-079 making strides towards a sustainable city with the amsterdam circular strategy.pdf
- Doughnut Economics Action Lab <u>https://doughnuteconomics.org/</u>
- Ecocide Law: EndEcocide campaign https://www.endecocide.org/ And recent coverage in the Guardian https://www.theguardian.com/environment/2021/jun/22/legal-experts-worldwide-draw-up-historic-definition-of-ecocide , UNEP https://www.unep.org/news-and-stories/story/how-new-laws-could-help-combat-planetary-crisis , Financial Times Ecocide: a new weapon in the fight to save the planet (2.5 minute audio) https://www.ft.com/content/c035276c-27aa-4b7a-8061-9af5bc18fdf1

