OVER-PACKAGING

RETH!NK PLASTIC

ZERO WASTE EUROPE

Friends of the Earth Europe

Although plastic packaging can play a role in reducing food waste, the preservation of food is only one of its aims. Despite consumers reporting their frustration with over-packaging, it continues to be a commonly-used marketing tool, driving plastic waste in the economy. Single-use plastic packaging is rarely part of the circular economy and its impact may well offset the convenience it offers.

EUR 75-112 billion of plastic packaging material is lost from the economy each year, equivalent to the GDPs of Slovakia and Hungary [1].

FOOD AND PLASTIC PACKAGING WASTE IN THE SUPPLY CHAIN

Unnecessary food waste and plastic packaging waste are closely connected and represent failures in a linear economy. Europe's transition to a circular economy includes objectives to reduce both plastic and food waste, making it clear that one form of waste should not be used to justify another [2].

Food waste: an estimated 88 million tonnes (173 kg per person) of food is wasted each year in the EU [3], which is about 20% of the total food produced in the EU. Key inter-related waste drivers at different stages in the value chain include the oversupply and undervaluing of food [4] [5].

Plastic packaging waste: plastics are the most widely used material for packaging food in Europe. Here, however, the circular economy is poorly implemented, with most plastic packaging being incinerated, sent to landfill or leaking to the environment [1].

Life Cycle Assessment (LCA) and plastics: plastic packaging and its associated wastes are often justified by industry because of their perceived effectiveness in preserving and extending the shelf-life of food [6] [7]. However, the LCA data used to support these arguments tend to be narrowly defined, ignoring all end-of-life impacts and reusable or zero-packaging approaches [8].

PROBLEMATIC CASES

Many wasteful packaging practices common among food retailers and services illustrate a failure by our food system to offer comprehensive solutions for reducing waste:

Multipacks and promotions: grouping products together unnecessarily, such as using plastic mesh nets for citrus fruits or garlic, can lead consumers to over-purchase and thus drive food waste [9].

Small format packaging: wrappers and condiment sachets, for example, represent 10% of the packaging market and are vulnerable to leaking into the environment [1] [10]. One report for a plastics industry association estimated these plastics to have zero recycling potential [11].

Pre-prepared food: pre-cut fruit and vegetables, pre-packaged sandwiches, sushi and wraps are a fast growing food segment, reflecting urban lifestyles which favour eating on-the-go and minimal meal preparation [12]. However, short shelf-lives, high packaging intensity and dependence on refrigeration make ready-to-eat foods vulnerable to waste [13].

In the UK, 37,000 tonnes (178 million bags) of prepared salad are thrown away each year, equivalent to every person in Liverpool throwing away a bag of salad every day for a whole year [14].

TAKING ACTION AGAINST OVER-PACKAGING

Opportunities exist throughout the supply chain to avoid food and packaging waste without compromising our access to healthy and nutritious food.

Reusable packaging: reusable packaging is more efficient and cheaper than single-use plastic [15]. In Brussels, where restaurants produce 10,000 tonnes of packaging waste a year, one take-away service has implemented reusable steel boxes and the use of bike couriers to reduce waste [16].

Short food supply chains: involve fewer intermediaries and shorter distances between farmers and consumers. Examples include farmers markets, vegetable boxes, and community supported agriculture schemes (CSAs) [17]. These initiatives facilitate reusable packaging, where the food miles and emissions are significantly lower [18].

Package-free retail: traditional food markets and growing numbers of 'package-free' stores demonstrate the feasibility of reusable packaging and selling produce loose or in dispensers [19]. The Spanish company, Laserfood, has implemented package- and sticker-free labelling of fruit and vegetables in a number of major European retailers [20] [21].

79% of consumers in the UK agree that products are over-packaged [22] and 76% of Germans say they prefer their fruit and vegetables package-free [23].

Innovation and systemic change: A growing demand for less packaging presents opportunities for businesses to market products which reduce both forms of waste. In 2017, a USD 2 million prize for innovations in small format packaging and plastics recycling was launched [27]. The winners of this 'Circular Design Challenge' were announced in October 2017 and represented three categories: rethinking grocery shopping, redesigning sachets, and reinventing coffee-to-go. The winners included an app developed by MIWA (#MInimumWAste) to reduce single-use packaging by allowing consumers to order the exact quantities of groceries needed, which are then delivered in reusable packaging [28].

FOOD CONTACT MATERIALS

Food contact materials, including plastics, may pose health risks to consumers due to chemical migrations. Migration of harmful chemicals, such as endocrine disruptors, has been proven in plastic packaging but there is as yet insufficient understanding of which chemicals migrate from different materials to food and how policies can be used to address the risks [24]. Packaging made from permanent materials (i.e. glass or stainless steel) provide superior food contact materials, as they are less likely result in chemical migration or to impair the flavour of the product [25]. Such materials are also highly suited to being reused and recycled, and thus can be readily integrated into short supply chains and the circular economy more widely [26].

FOOD & PLASTIC PACKAGING WASTE

PLASTIC IS THE MOST WIDELY USED PACKAGING MATERIAL IN FOOD

LANDFILL

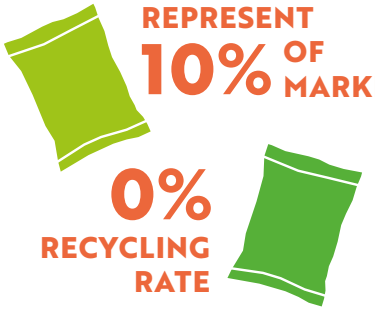
OR

INCINERATION

PROBLEMATIC CASES

LEAD TO OVER PURCHASING AND DRIVE FOOD WASTE

MULTIPACKS



REPRESENT 10% OF MARKET

0% RECYCLING RATE

SACHETS

SUSHI WRAPS

SHORT SHELF-LIFE
HIGH PACKAGING INTENSITY

PRE-PREPARED FOOD

ACTIONS AGAINST OVER-PACKAGING

RE-USABLE PACKAGING

PACKAGE-FREE

VEG BOXES

FARMERS MARKETS

COMMUNITY-SUPPORTED AGRICULTURE

SHORT FOOD SUPPLY CHAIN

RECOMMENDATIONS

Relying on single-use plastic packaging as a means of reducing food waste is unimaginative and ignores the underlying drivers of food waste. Policies are needed to better understand the interactions between packaging and food waste and promote a food system which is truly circular and sustainable:

- Amend the EU Packaging and Packaging Waste Directive (PPWD) to address problematic packaging, including the introduction of specific consumption reduction targets and the promotion of reusable packaging, similar to that used for single-use plastic bags.
- Develop market-based instruments which incentivise eco-design for packaging. Truly circular alternatives, such as zero packaging or reusable packaging should be prioritized over single-use plastic packaging.
- Regulate packaging practices that drive food waste in the supply chain. This includes the use of multipacks, unnecessary grading and misleading packaging.
- Develop more comprehensive methods for assessing packaging options, beyond existing LCA studies. For example, a neutral body such as the Joint Research Centre could compare single-use packaging with alternative circular economy routes from production to end-of-life.

Full report available at:
foeeurope.org/unwrapped-throwaway-plastic-food-waste

Institute for European Environmental Policy

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