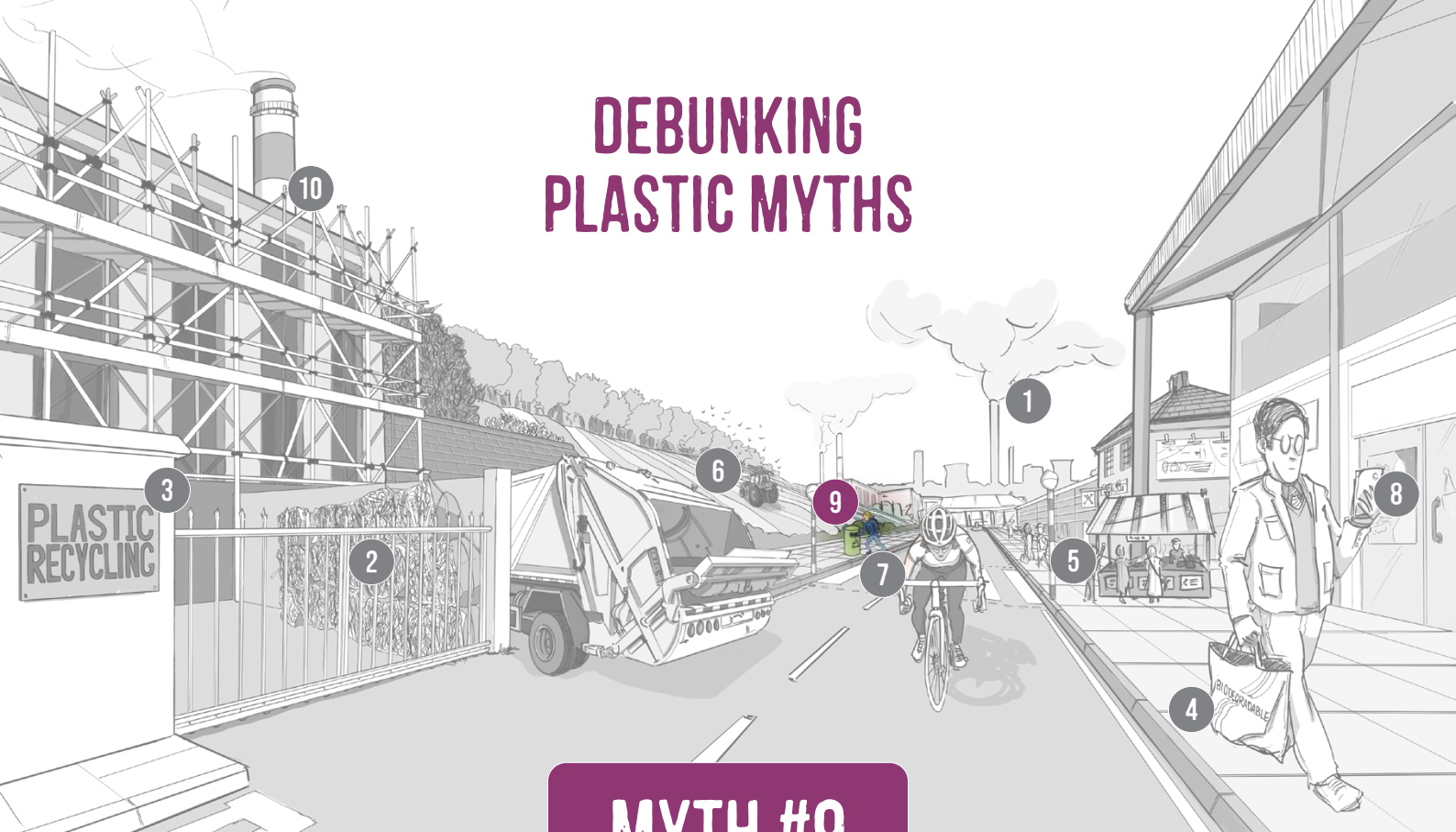


# DEBUNKING PLASTIC MYTHS



## MYTH #9

### IF CONSUMERS DID THEIR PART, PLASTICS RECYCLING WOULD BE AN UNEQUIVOCAL SUCCESS

Consumers are involved in the fate of plastic waste starting with the consumer demand that brings certain products to the marketplace, and extending through product use to the end of product life and beyond. Although the efforts of the consumers could still be improved, it is true that more and more people wish to do their part and recycle. Although consumers play a large role in plastic recycling, despite their efforts and good intentions, success recycling faces several obstacles. It largely depends on the nature of plastic products, the capacity of recycling systems and the involvement of local authorities.

In general, there is limited information on products and difficult to make informed and well-founded choices. It is difficult to sort plastics for recycling as many products are made of mixed materials (for example, coffee-packaging that appears to be plastic, but is only plastic on the outer layer).

The recycling of plastic waste is characterized by three distinct phases: collection; sorting; and processing. Consumers can play important roles in collection and sorting of post-consumption waste, which seem to be the most pivotal of the three phases (Ncube et al., 2021), but waste management organizations provide collection points either curbside or at drop-off

centres, and play a part in sorting as well. Processing occurs in recycling facilities where waste is mostly mechanically processed into flakes or pellets that will be used as raw materials in the manufacture of new products (Hahladakis & Iacovidou, 2018).

#### The role of consumers

##### Purchasing power

Through their purchasing choices, consumers determine the extent to which environmentally friendly packaging succeeds in the market (Ketelsen et al., 2020). This is an inherently powerful role because the success

of recycling depends in part on the recyclers' ability to process the waste. While consumer response to environmentally friendly packaging is not well understood, recent studies find that consumers need more information and clearer labelling, and that many consumers base their choices on price and quality rather than on the packaging (ibid). Lack of information is a significant barrier to consumer choices related to packaging, and buyers are prone to opt for standard, default options (OECD, 2017; Bening et al., 2021) despite their environmental concerns (Ketelsen et al., 2020).

### **Knowledge about recycling and sorting**

Consumers often have a poor understanding of labelling for common products, consequently their sorting behaviour is also poor (Buelow et al., 2010; UNEP, 2020a). The lack of clear information on labelling often hinders effective segregation of plastic waste for recycling. Consumers often end up mixing different materials, which degrading the quality of recyclates. In most cases, consumers receive no feedback about their waste sorting nor do they know the collection costs, as these are billed as part of a generic residence tax (OECD, 2017). In addition, plastic waste does not always go where consumers think it is going, but may be sent to countries where waste treatment does not follow environmentally sound management principles (INTERPOL, 2018). These unwanted outcomes may influence consumer behavior and discourage participation in recycling efforts.

Where formal sorting is in place, consumers are responsible for identifying and responsibly disposing of waste in appropriate sorting bins at waste collection points, or for placing sorted waste for curbside pickup. Sorting requirements of household waste differs from one municipality to another. In developing countries where waste management is often informal, only high-value and marketable plastic materials are picked up, and the rest ends up in dumpsites (McKinsey & Company and Ocean Conservancy, 2015).

### **Cognitive dissonance and availability of alternatives**

Consumers more concerned with convenience and price may choose single-use products that typify the throwaway society, and overlook the environmental consequences of their purchases in preference for personal ease of use. This preference for disposable products has resulted in half of all plastic produced being designed for single use (UNEP, 2018). But even consumers with eco-conscious attitudes may sometimes fall prey to the "attitude-behavior gap". Purchasing out of habit without further thought can

lead consumers to buy familiar products that do not align with their environmental beliefs when thoughtful consideration would lead them to an eco-conscious alternative – thus the gap between attitude and behaviour.

As consumers become more aware of environmental issues, they become more interested in switching to green products, and more willing to do their part to recycle (UNEP, 2020a; Walker et al., 2021; Ncube et al., 2021; iPoint, 2021). However, environmentally sustainable products are a small part of the market which limits consumer choices. In addition, the availability of green products is unevenly distributed geographically (UNEP, 2020b). Nevertheless, consumer knowledge about products and processes is a key factor affecting their behavior (Oh & Abraham, 2016). The greater the knowledge, the impact of subjective norms and external pressures has a smaller impact on influencing consumer choices (Tian et al., 2019).

This becomes increasingly important in many single-use plastic items which are to be banned across the world. Industry is increasingly turning to alternatives made of bamboo, paper, or palm leaves. In Europe, consumer organizations have uncovered toxic chemicals in all sorts of tableware such as straws and plates made of other materials than plastics. Over half of sampled packages contained one or more unwanted chemicals above recommended levels (BEUC, 2021).

## **What can we do?**

Although the overall success of recycling does not depend on consumers alone, several options for improving consumer contributions to the system are available. Governments and waste management companies can provide better information, and manufacturers can adopt better labelling to help consumers make decisions that align with their environmental convictions. Along with increased consumer knowledge, waste sorting can improve through better infrastructure design and increased sorting capacity.

### **1. Take steps to improve consumer participation**

Local authorities and waste management companies can improve consumer participation in recycling programmes by making sorting and collection as convenient as possible, and through careful and persistent communication. When communities provide recycling receptacles in places where consumers buy and consume takeaway food, they create opportunities to divert recyclable material from their landfills. Curbside

recycling and easily accessible central collection and sorting centres make household recycling less burden and more routine. Deposit–refund systems could be introduced where appropriate.

Waste generation starts with product development. To minimize the generation of waste, manufacturers should prefer long-lasting recyclable products over short-lived non-recyclable products, and to their credit, they are increasingly considering more sustainable solutions (iPoint, 2021). Still, new products take a long time and cost a lot of money to develop, and the introduction of new green products to the market is proceeding slowly (UNEP, 2020a). Products should also be designed to be easy to recycle, for example by avoiding mixing of different materials in food packaging.

Clear standardized guidelines and policies can improve the sorting of household waste (d'Ambrières, 2019). The requirements for waste collection and sorting should be easily understood, and consumers should get rewards for following the rules and corrections when they make mistakes. In some areas, a more intuitive design of recycling bins or transparent recycling bags might ease consumer recycling efforts and shift consumer social norms in favor of recycling (OECD, 2017). In order to increase consumer options for disposal, companies can develop their own channels for the collection of recyclable waste (Khan et al., 2019). Over time community recycling becomes a regular activity that consumers understand and support.

National governments and international agreements govern the fate of material that enters recycling systems, and by making the transactions along the value chain transparent, they can instil confidence among consumers that they are making a difference. One television report on container ships of recyclable materials being sent to countries that do not practice sound environmental waste management is enough to

make consumers ask themselves what is happening to the material that they think they are recycling.

## 2. Provide consumers with sustainable alternatives

Consumers are the most important decision makers in the market's adoption of alternative plastic packaging products (Fernqvist et al., 2015). Educating consumers and understanding the consumer perspective, intentions, and behaviour is critical (Budijati et al., 2016; Jiménez-Parra et al., 2014; Najmi et al., 2019). Government publicity campaigns can play an important role in improving the sorting of waste at the source (Tian et al., 2019). Governments and waste management companies can help consumers develop positive attitudes towards environmental protection through regular advertisements and educational and promotional programmes.

Plastics manufacturers communicate with consumers through the recycling label and claims on the package. Along with standardized labels, several companies have started to design their own labelling schemes with a view to guiding consumers towards the responsible sorting of packaging materials after the end of a product's useful life. The use of advanced technological tools such as mobile phone applications can broaden and strengthen the communication between companies and consumers.

## 3. Increase sorting capacity

Ultimately, increasing sorting capacity at both the consumer and post-consumer levels can play a substantial role in achieving higher plastic recycling rates and moving toward a zero-waste circular plastic economy (Cimpan et al., 2015; Shiran & Kremer, 2021). Conditions in developing countries, where informal collectors handle most of the waste management and recycling, requires further attention as only high-value and marketable plastic materials are recycled, and the rest end up in open disposal sites (UNEP, 2020b).

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