

- Case Study -

National green regulations and policies - The use and recycling of plastic products



**Sustainable
development
goals (SDGs)**

Goal 9: Industry, innovation and infrastructure

Goal 11: Sustainable cities and communities

Goal 12: Responsible consumption and production



**Relevant concept/
issues**

Environmental justice and law



Relevant sector

Administrative and support services

Problems regarding the use and recycling of plastic products

The increasing consumption of plastic items places a great deal of pressure on global resources and the environment. According to data released by the OECD, the amount of plastic waste worldwide was about 353 million tonnes in 2019, of which only 9% was recycled. As the world's largest producer and consumer of plastics, China produces more than 100 million tonnes of plastic raw materials and more than 60 million tonnes of plastic consumer products every year. However, China's disposal supply chain after plastic consumption, especially in recycling, is far from ideal.

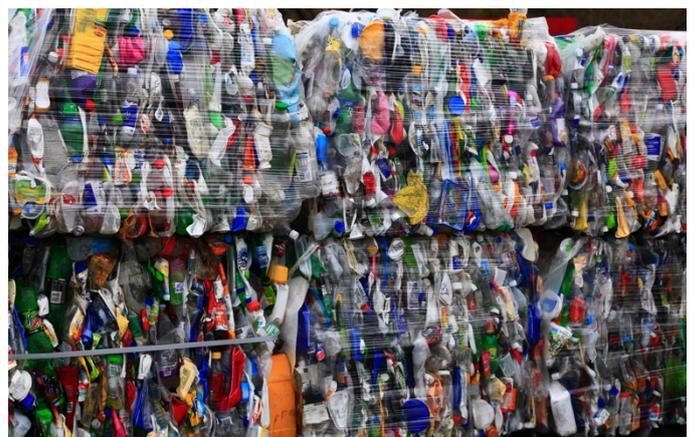


Fig. 1. The worldwide issue of plastic waste.
Source: Unsplash

Solutions from policies and industry responses

1. National regulations and policies

- a. On 29 April 2020, the State approved the amendment to the *Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste*. The amendment has been effective since 1 September 2020. The main points of the amendment are: set up the principles of reduction, resourcefulness and harmlessness in the prevention and control of environmental pollution from solid waste; restrict the production, sale and use of non-degradable plastic bags and other disposable plastic products; encourage and guide the use of recyclable, degradable alternatives to the plastics product; and mandate reporting obligations on the use and recycling of single-use plastic products for specific sectors, such as retail merchandise establishments, e-commerce platform companies and courier companies.
- b. On 16 January 2020, the National Development and Reform Commission and the Ministry of Ecology and Environment issued the *Opinions on Further Strengthening the Control of Plastic Pollution*. The main points of the document are: propose different timetables for banning and restricting the production, sale and use of some plastic products; promote the application of alternative products and models; regulate the recycling and disposal of plastic waste; an identification of banned and restricted plastic products, including non-degradable plastic bags, disposable plastic tableware, disposable plastic products for hotels and guest houses, and courier plastic packaging.
- c. On 30 November 2020, the State Council Office forwarded a notice from the National Development and Reform Commission on *Opinions on Accelerating the Green Transformation of Courier Packaging*. The main points of this document are: reduce courier packaging materials from the source; reinforce the governance of plastic pollution in the courier sector; encourage major cities to phase out non-degradable plastic packaging bags and disposable plastic woven bags; reduce the use of non-degradable plastic tape; reduce the secondary packaging of e-commerce shipments; promote the application of recyclable packaging; and regulate the recycling and disposal of courier packaging waste.

2. Countermeasures from the industry

- a. Promote the use of non-plastic products, such as eco-friendly cloth bags, paper bags and biodegradable shopping bags.
- b. Promote green design to reduce the quantity, and improve the safety and recyclability, of plastic products.
- c. Research and develop new, green and eco-friendly functional materials.
- d. Use recycled plastics, recyclable or easily recyclable, and degradable alternative materials.
- e. Implement the harmlessness of courier packaging materials.
- f. Promote the use of recyclable courier packaging.
- g. Reduce courier packaging materials from the source and reduce secondary packaging for e-commerce courier parcels.
- h. Enhance courier packaging recycling, courier packaging waste sorting and disposal.
- i. Implement waste separation and classification, and expand the collection and disposal of recyclables from plastic waste.
- j. Promote the resourceful use of plastic waste.
- k. Build a series of sound regulations and standards.



Fig. 2. Stop plastic consumption.
Source: Unsplash

3. Cases of industrial responses to relevant regulations and policies

a. Accelerate the green transformation of the courier industry to solve the issue of the “rubbish siege” of packaging materials: using recycled courier boxes and recycling courier boxes for re-use, and setting up intelligent recycling machines in some residential communities in Shanghai. SF Express launched the “π-box” courier recycling box, which can be recycled over 70 times. Zhongtong Express has also launched a “Return Box Plan”, with a total of over 24,000 recycling devices invested by the end of 2021. JD has also launched a recyclable room temperature clear flow box and a recycled fresh food insulated box, which were recycled about 200 million times by the end of 2021.



Fig. 3. “π-box”
Source: SF Express

b. 350 meal box recycling and reproduction pilots were built by Meituan Takeout Green Mountain Project: Meituan Takeout launched the Green Mountain Project in August 2017, which worked with 110 packaging companies to identify takeout packaging solutions. Over the first three years 350 takeout meal box recycling and reproduction pilots were established, which included 240,000 public welfare businesses planting trees in Yunnan and other places, that resulted in an area of 2,800 mu forest as a move to alleviate ecological poverty.

c. Building a "No Waste City": Since 2019, Shenzhen has developed a paradigm for large cities by building a "No Waste City". This includes a refined system for domestic waste management, a supervision system for sludge recycle and reuse, a whole-process system for construction waste management, and a smart system for the life cycle management of hazardous waste. At present, in Shenzhen, the recycling rate of domestic waste is 46%, the amount of industrial solid waste generated per 10,000 yuan of industrial added value is 32 kg, the synergistic utilization of general industrial solid waste is 91%, the synergistic utilization of industrial hazardous waste is 59%, and the recycling rate of plastic film for agricultural applications is 93%. These achievements are among the best in China. At the same time, the proportion of domestic waste incineration treatments, the proportion of green buildings, the comprehensive utilization rate of straw, livestock and poultry manure, the harmless disposal rate of urban sewage sludge, the coverage rate of medical waste collection and disposal system have all reached 100%, and the resource utilization rate of dismantled waste is 99%, which is at the international advanced level.



Fig. 4. Shenzhen Waste-To-Energy Plant.
Source: NS Energy.

d. McDonald's China issued a nationwide order to its outlets to stop using plastic straws. On the 30 June 2020 McDonald's China announced that around 1,000 shops in Beijing, Shanghai, Guangzhou and Shenzhen would be the first to enforce this order for dine-in and takeaway meals. Consumers can drink cold solids-free beverages, such as Coke, directly through new cup lids, while cold beverages containing solids, such as Pearl Milk Tea, McSwirl, and McCoffee cold, will still come with straws. McDonald's China said that the plastic reduction initiative would be in place in all restaurants in mainland China by 2020. This was expected to reduce the amount of plastic used by approximately 400 tonnes per year.



Fig. 5. McDonald's to stop using straws in China. Source: China Plus.

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快递行业绿色转型提速 破解包装材料“垃圾围城”难题

Accelerate the green transformation of the courier industry to solve the problem of "rubbish siege" of packaging materials

美团外卖青山计划：已建成350个餐盒回收循环再生试点

350 meal box recycling and reproduction pilots were built by Meituan Takeout Green Mountain Project

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