



4.9. China: Banking on biodegradables

In 2019, China's annual output of plastic products reached 81.8 million tonnes, with an increase of 3.9% year on year,⁶⁸⁶ accounting for about 25% of the world's total output.⁶⁸⁷ China is also the largest user of plastic in the world on aggregate, and one of the 20 worst countries for plastic-waste management, producing 8.82 million tonnes of mishandled plastic waste every year. Of that, at least 1.32 million tonnes of plastic finally goes into the ocean⁶⁸⁸ – the equivalent of filling almost twice the area of Beijing's Forbidden City with a layer of trash 1 metre thick.

Chinese citizens' awareness of plastic pollution and desire to do more has also steadily increased: While a 2008 survey reported that only 26% of citizens participated in eco-friendly behaviour,⁶⁸⁹ another national survey a decade later found that 93% of Chinese customers actively sought to buy fewer single-use plastic items.⁶⁹⁰ A more comprehensive national survey in 2019 revealed that 94.6% of respondents indicated they were willing to sort their waste, although about half (51.6%) thought that the result of garbage classification was only OK, while 39.1% found it unsatisfactory.⁶⁹¹



Grocery stores vegetables wrapped in single-use plastic in China |

Credit: Wen Bo |

The Chinese government has been among the more strident in terms of sweeping legislation to tackle plastic waste – from a poorly enforced plastic-ban bag in 2007 to the landmark National Sword policy of January 2018, which sent shockwaves through the world of waste management, and, in January 2020, an extended plan to curb plastic pollution that seeks to reduce the use of problematic single-use plastics – such as cutlery, straws and bags – by 2025.⁶⁹² Crucially, the plan is not binding and does not go into detail on collection mechanisms or targets, devolving specific waste-management policies to provincial governments. A concerning amount of emphasis is placed on the use of ‘alternative’ materials (such as biodegradable and compostable materials) to replace packaging, rather than on scaling collection, effective recycling or reuse-and-refill systems. As one of the world’s largest suppliers of biodegradable plastics, China accounts for about 20% of global production capacity, with output expected to rise with favourable national policies.⁶⁹³ The push towards biodegradable plastics lacks specific guidelines on their suitable uses or precautions against scaling other environmental problems in their wake, and is a concerning extension of a linear, throwaway economy.

Despite this, a promising signal from the central government was the State Council’s Zero Waste Cities pilot programme, which includes development of waste infrastructure, improved recycling and restricting production of single-use plastics, although retains the same focus on biodegradability. Sixteen cities were selected as pilots,



| Bottled beverages in a supermarket in Hainan, China

| Credit: Wen Bo

with an emphasis on exploring partnerships and innovation to reduce plastic waste.⁶⁹⁴ Yet, beyond the central government's efforts to regulate the problem, corporates' responses to the plastics challenge have been tepid.

4.9.1. Corporate response

Beach clean-ups and brand litter audits conducted between 2017⁶⁹⁵ and 2019⁶⁹⁶ reveal a different cast of corporate characters responsible for marine pollution in China, with the top five polluters listed as Master Kong, Wahaha, C'estbon, Nongfu Spring and the ever-present Coca-Cola.⁶⁹⁷ Some of these brands (such as Nongfu Spring) are household names to Chinese consumers, while others are better known by their branded products. These consumer brands' responses and initiatives highlight the relative lack of progress in China on key areas such as collection, recycled-content inclusion, and reduction and reuse. The majority of their efforts - with the notable exception of Coca-Cola's global targets (100% recyclability by 2025 and use of at least 50% recycled content in packaging by 2030)⁶⁹⁸ - fall into several categories of tactics designed to pay lip service to their responsibility for the plastics crisis (at best) or ignore it altogether (at worst).

4.9.1.1. Awarding prizes

The top-polluting Chinese brands boast a glut of sustainability and CSR awards, handed out by government departments, trade associations and even state media (such as *CCTV*, *People's Daily* and *Xinhua News*). Examples include 'Outstanding Chinese Enterprise in CSR 2018' and 'The Honorary Title of Cleaner Production Enterprise' for Master Kong,⁶⁹⁹ and 'Water-Saving Excellent Enterprise of China Beverage Industry' and 'China's Pioneer for Improving People's Livelihood' for Wahaha.⁷⁰⁰ Many companies also prominently display the Sustainable Development Goals on their websites and publications, yet offer no further detail - and none at all regarding any aspect of plastic or packaging.

4.9.1.2. Avoiding mentions of plastic waste

With the exclusion of Coca-Cola, these brands are also keen to highlight their efforts to tackle other sustainability challenges, such as emissions and water usage. Neither Master Kong, Wahaha nor C'estbon makes more than a scant mention of plastic or recycling, let alone plastics' environmental harm, in their publicly accessible information,⁷⁰¹ and Nongfu Spring has no environmental sustainability-related information available online at all. Furthermore, in 2018, Master Kong assessed plastic-waste management as having a low potential impact on their business, and as being of limited importance to shareholders.⁷⁰² For companies with vast plastic footprints and high litter counts, simply ignoring or not mentioning packaging or pollution is a significant abdication of responsibility.

The CEOs or senior executives of these five brands are also vice-chairmen of the China Beverage Industry Association (CBIA), an industry association with close ties to the government. The CBIA is a staunch defender of these beverage brands,⁷⁰³ in one case denouncing the methodology of a media report that found antimony in PET bottles sold by several large brands, including Coca-Cola and Nongfu Spring.⁷⁰⁴

In 2018, Master Kong organised a team of more than 500 people - comprised of student volunteers, parents and members of staff - to pick up garbage on an island in Chongqing city, and called on the general public to protect the environment. The company has not acknowledged its position as one of the worst sources of beach litter in China.

4.9.1.3. Voluntary collection or tokenism

Chinese consumer-goods companies have initiated several voluntary pilots designed to showcase recycling and collection, but seemingly without advocating mandatory collection or scaling these pilots beyond their



limited timescale or scope. These include 'Bottles Recycle Program: Re-Create Together', a temporary event stand sponsored by Wahaha at the 34th International Exhibition on Plastics and Rubber Industries. Visitors were invited to recycle plastic bottles in RVMs; as a prize, they received a novelty T-shirt or Wahaha beverage - in a plastic bottle.⁷⁰⁵

Partnering with Incom Recycle, C'estbon participated in the Green Lucky Star pilot in 2016. Consumers who returned used C'estbon bottles with star stickers to waste-sorting and -recycling machines, placed by Incom in a supermarket chain in Beijing, received a small amount of money back.⁷⁰⁶ However, this pilot was not extended beyond Beijing, and is not mentioned in the company's sustainability reports.

Finally, Coca-Cola installed 2,000 RVMs in schools and communities in Beijing in 2017 and 2018 to encourage recycling or plastic bottles, using the slogans '*We care*' and '*It's up to you to take environmental action*'. There is no information about whether this scheme was successful, and it appears to have been discontinued.⁷⁰⁷ The company also teamed up with e-commerce platform JD.com in Shanghai, using JD.com's logistics network to collect bottles from 50,000 households. However, the project only ran for two weeks.

4.9.2. Hainan's disappearing DRS

The island province of Hainan is a key tourist destination and burgeoning Special Economic Zone. It currently uses about 120,000 tonnes of plastic each year, and is one of the more progressive provinces in its efforts to curb plastic pollution. The island's capital, Sanya, is one of China's pilot Zero Waste Cities, and Hainan has plans to implement a ban on broad range of non-biodegradable single-use plastics by 2025 (such as straws, bags and some single-use tableware),⁷⁰⁸ which will come into force in December 2020.⁷⁰⁹ During the consultation process, PLASTICS of Hainan strongly opposed the ban, and the China Plastics Processing Industry Association made comments on the policy;⁷¹⁰ yet the secretary-general of the former spoke positively of the ban in an interview with the bioplastics industry.⁷¹¹ The industry association counts at least one bioplastic producer among its members.

Hainan's legislation additionally indicates that recycling plastic bottles should be managed through an EPR

system; yet, come the official issuing of the regulation, DRS was conspicuously missing. In documents and media coverage from mid-2019, DRS was explicitly mentioned as an avenue of exploration in Hainan.^{712,713} A further article in state media outlet the *People's Daily* refers to DRS as though it is already a done deal, stating Hainan will lead the way in establishing deposit systems in China.⁷¹⁴ As late as November 2019, the *Sanya Daily* declared that the Hainanese government issued '*strong signals that the establishment of DRS in Hainan will go from request to reality*', and extolled the benefits of the system for reducing plastic waste and ushering in an '*ecological civilisation*'.⁷¹⁵ Despite getting the green light, back-room dealing seems to have undermined DRS at the last moment. Indeed, industry sources in our investigation revealed that a coalition of vested interests - including Coca-Cola - entered discussions in the final stages to ensure that DRS was taken off the table. Furthermore, on-the-ground investigations revealed significant reluctance from local business and retailers



to participate in DRS, stating there would be little incentive were the system not made compulsory. Today, DRS remains a small, voluntary system, undertaken in some shops and with little public awareness. It is unknown whether similar DRS proposals in Fujian and Guizhou met the same fate.

Action on plastics in China reveals a very different landscape to other developed economies. Broad and high-profile government moves pale in comparison to the level of production and consumption of the world's most populous nation. While the willingness to legislate on the issue is promising, the focus on end-of-pipe solutions (like biodegradable plastics) is not, and serves to perpetuate a linear economy. Meanwhile, companies are well behind the curve, and many do not even acknowledge the plastics problem they perpetuate. With Hainan set to be a pioneer in the introduction of DRS in China, its apparent failure is a significant stumbling block, and demonstrates the hypocrisy of multinational consumer-goods companies that want to appear progressive, where it matters to their image, but continue to campaign to undermining progressive legislation whenever they can get away with it.

| Automatic vending machines in Tokyo

| Credit: Pietro Bruni

