In focus

The changing world of plastics in China

Keep ahead of new regulations impacting the food and beverage industry and other sectors

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Increased awareness of plastic pollution is driving complex new regulatory developments around the world. In China, three new strategies under the government's National Strategic Plan focus on plastics production and consumption, development of eco-friendly alternatives and improved waste management. This white paper looks at each of the strategies and considers their implications for the food and beverage industry and other sectors.

China's new strategies for plastics

China accounted for around 30% of global plastic production in 2018[1], making it the world's largest producer. Now the country is taking decisive action on plastic waste prevention and has initiated a series of policies to this effect.

Importation of plastic waste: key facts

In 2016, China imported two thirds of the world's plastic waste[2]. However, its stance on this activity has changed as part of increased efforts to combat global plastic pollution. China barred the importation of defined residential plastic waste in 2017[3], industrial plastic waste in 2018[4] and all plastic waste in 2020[6]. The aim was to achieve zero imports of solid waste by the end of 2020. According to China Customs Statistics, annual imports of plastic waste were slashed from 5.83 million tonnes in 2017 to 50,000 tonnes in 2018.

National strategic plan and regulatory measures

China's Law on Prevention of Environmental Pollution by Solid Wastes[5] came into force on 1 September 2020. It bans the production and use of certain plastic products and establishes notification requirements on the use and recycling of plastic bags which will affect retailers, e-commerce and delivery businesses. It also addresses excessive packaging and household recycling.

Within this framework, three strategic objectives[6] cover the entire lifecycle of plastics:

1. Reduce growth in plastic production and consumption (particularly single-use)
2. Support innovation and promote eco-friendly plastics and alternatives
3. Improve waste management systems and increase cooperation among stakeholders

So, what are the key requirements and associated implications for industry?

1 Reduce growth in plastic production and consumption (particularly single-use)

China has joined the growing number of countries banning single-use plastics and other plastic products which cause significant environmental problems. Prohibitions which impact various industry sectors and product categories will be phased in, with specific goals for the end of 2020, 2022 and 2025[6,7].

From 1 January 2021, nationwide prohibitions include:

Production and sale of:

- Ultra-thin plastic shopping bags less than 0.025 millimetres thick (with certain exemptions)
- Polyethylene agricultural mulch films less than 0.01 millimetres thick
- Disposable foamed plastic tableware and cotton swabs made from plastic
- Production of specified cosmetics and personal care products with plastic microbeads
- Use of non-degradable single-use plastic straws (with certain exemptions)

In cities, certain specified premises and establishments have been banned from using non-degradable single-use plastic tableware. The same is true for non-degradable plastic bags, with certain exemptions.

The use of medical waste as a raw material for the manufacture of plastic products has also been stopped.

By the end of 2022 and 2025, prohibitions will extend in stages to cover:

- Sale of cosmetics and personal care products containing plastic microbeads
- Use of non-degradable plastic bags and single-use tableware in wider regions and premises
- Single-use plastic supplies in hotels and other guest accommodation
- Non-degradable plastic bags and single-use plastic woven bags in courier/delivery networks

Regional variations

Under the guidance of the national strategic plan, many local governments have established regulations at a provincial level. They are aligned with the national measures but include more detailed action plans and in some cases additional targets.

For instance, a series of measures and targets were introduced in Shanghai in October 2020[8]. Single-use plastic supplies will not be provided in star-rated hotels in the city by the end of 2021 (this will happen nationally at the end of 2022). And the ban on non-degradable plastic packaging materials in courier/delivery networks has also been brought forward to 2021.

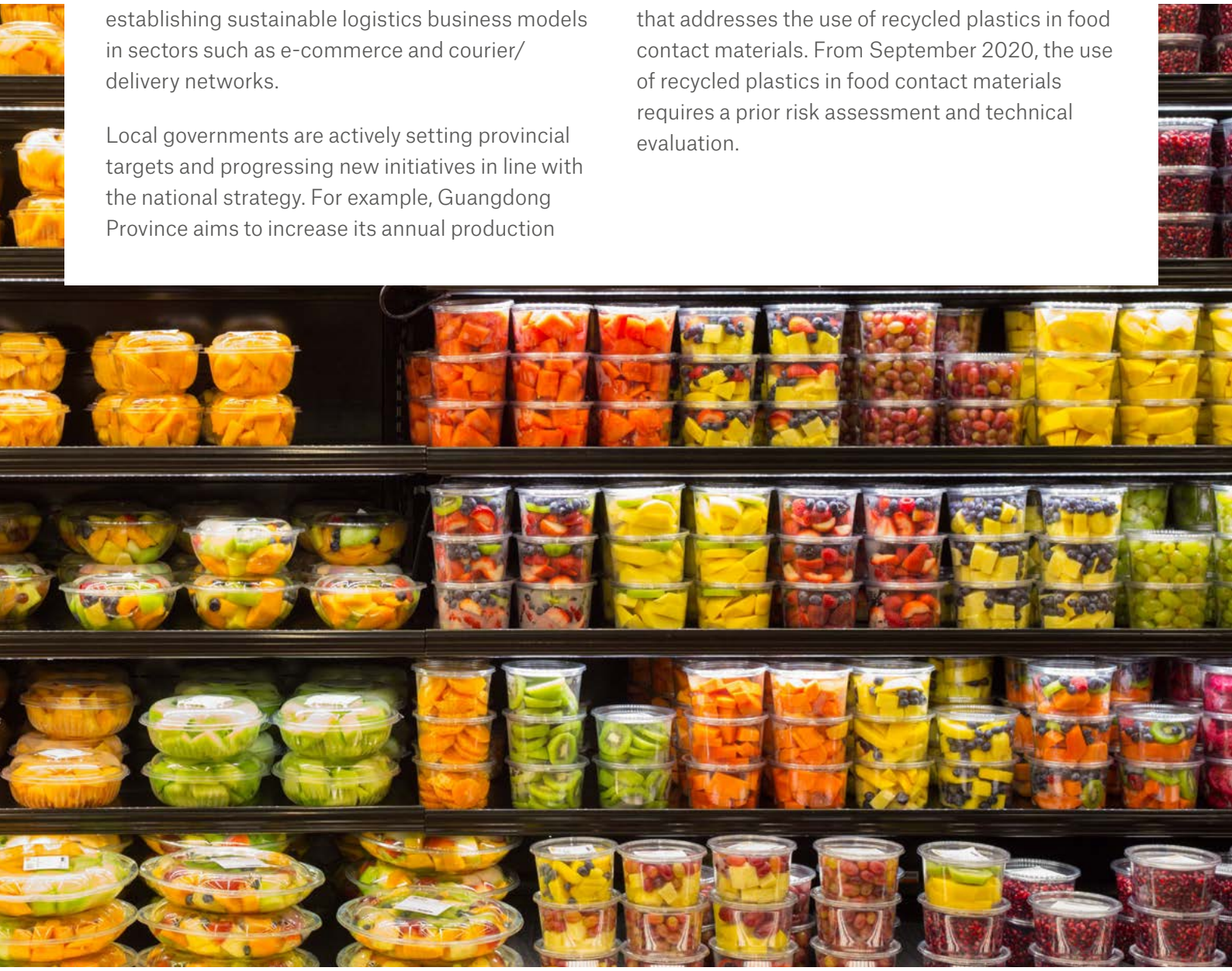
2 Support innovation and promote eco-friendly plastics and alternatives

This strategy focuses on the circularity, recyclability and degradability of plastic products and alternatives. The goal is to increase the development and use of environmentally friendly products by 2022.

One aspect of this will include boosting the conversion of waste plastics into resources for energy and useful materials. Another looks at establishing sustainable logistics business models in sectors such as e-commerce and courier/ delivery networks.

Local governments are actively setting provincial targets and progressing new initiatives in line with the national strategy. For example, Guangdong Province aims to increase its annual production capacity of degradable plastic raw materials to more than 200,000 tonnes by 2022. Ultimately, the goal is to exceed 500,000 tonnes with between five and ten pilot manufacturing sites for degradable plastic materials and products to be built by 2025[9].

Guangdong has also introduced a pioneering measure as one of the few specific rules in China that addresses the use of recycled plastics in food contact materials. From September 2020, the use of recycled plastics in food contact materials requires a prior risk assessment and technical evaluation.



Recycled plastics for food applications

The use of recycled plastics in food contact applications was formerly banned in China, but this policy was revised some years ago. Since then, some individual authorisations have been granted on a case by case basis. However, at a national level, Chinese legislation does not contain specific provisions on this matter.

To address this issue, China's first national working group for sustainable food contact materials was established in September 2020. Its role is to promote sustainable development of food contact materials. To this end, it will provide a platform for communication amongst various stakeholders and assist policymakers with the scientific advice required to formulate legislation.

Chinese regulators are currently developing standards and guidelines to help promote sustainable products and deal with waste plastics. These include national standards for:

- Starch-based plastic shopping bags (GB/T 38079)
- Biodegradable plastic shopping bags (GB/T 38082)
- Classification and coding of waste plastics (GB/T 37547)
- Technical specifications for recycling of waste plastics (GB/T 37821)

Furthermore, on 8 September 2020, the China National Light Industry Council issued a voluntary Guidance for the Classification and Labelling of Degradable Plastic Products[10]. It contains definitions, classification and limits for heavy metals and other elements. Also included are labelling requirements (such as logos for degradable plastics) and test methods to determine degradability under various conditions.

Food industry implications

- By 2022, Central Chinese Government will encourage development of plastic alternatives and drive significant growth in the conversion of waste plastics into resources for energy and useful materials
- Regional variations need to be considered, for example Guangdong is setting its own provisions for the use of recycled plastics in food contact materials
- The development of standards and guidelines related to sustainable products and waste plastics is ongoing
- China's national working group for sustainable food contact materials is an area to watch closely

3 Improve waste management systems and increase cooperation among stakeholders

The final aspect of the national strategic plan focuses on preventing indiscriminate disposal of plastic waste. Measures to achieve this include an increase in recycling and disposal facilities, as well as stronger coordination and cooperation between stakeholders.

Agricultural applications

A specific area of focus is the reduction plastic pollution generated by the agricultural sector. For instance, regulation on the Recycling and Disposal of Pesticide Packaging Waste[11] issued by the Ministry of Agriculture and Rural Affairs came into effect on 1 October 2020. This details new rules for the handling, recycling and disposal of pesticide containers which is a significant improvement on the previous regulations which are deemed to be inadequate, disorganised and impractical.

Agricultural films are also under the spotlight. In 2018, approximately 2.47 million tonnes of these materials were used in China[12] and there have been tighter controls on their use and recycling in recent years. Today the average recycling rate of agricultural films nationwide has reached 80%. Moreover, the Administration Regulation on Agricultural Films[13] entered into force on 1 September 2020. This regulates the production, sale, use, recycling and re-use of agricultural films in a systematic way as well as encouraging the manufacture and use of biodegradable films. According to the regulation, films must now be labelled with the wording: 'Please recycle after use, reduce environmental pollution'.

Food industry implications

- This strategy is focused on the prevention of indiscriminate disposal of plastic waste, through an increase in recycling and disposal facilities
- Food and beverage manufacturers can take steps to adapt primary and secondary product packaging in support of these initiatives
- The focus on pesticide packaging and agricultural films suggests the Government is looking at the entire food production spectrum as a target for plastic waste reduction

In conclusion

China is taking significant and decisive steps to combat plastic waste and encourage more sustainable practices. This will impact multiple sectors, from food, retail and hospitality to agriculture, both now and in the years ahead. Some measures will need to be observed immediately from 1 January 2021.

It's important to note that this is a complex and evolving area. Besides the national plan and framework, local governments are implementing their own regulations which will have implications for the food and beverage sector.

One area that could become particularly complex is the use of recycled plastics in food contact materials. China is considering the development of national policy instruments to address this matter. It is also expected that efforts will be made to improve regulatory measures concerning sustainable food contact materials in general.

How can Leatherhead help?

With native Chinese speakers based in our UK office, Leatherhead can navigate the complexity of the Chinese market. We can help you understand the latest developments through techniques such as horizon scanning, a tool which identifies emerging opportunities, potential threats and risks. We can also support the access of new markets through landscaping as well as identifying which concepts would potentially work in the Chinese market.

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