



Automatic vending machines in Tokyo

Credit: Pietro Bruni



## 4.10. Japan: Out of sight, out of mind

*We shouldn't treat plastic as an enemy, nor ostracize those who use it ... What's needed is appropriate management of trash and to search for solutions through innovation.<sup>1</sup>*

- Prime Minister Shinzo Abe, October 2019

It is, for the most part, business as usual in Japan when it comes to plastic. According to a report in *The Japan Times*, Japan produces an estimated 9 million tonnes of plastic waste each year, with disposable packaging and food containers accounting for more than 40% of this waste.<sup>2</sup> The report also estimated that Japanese shoppers use 30 billion plastic shopping bags, and that the average person in Japan buys 183 plastic drink bottles, each year. According to the United Nations Environmental Programme, this makes Japan the second-biggest consumer of plastic on a per-capita basis - second only to the US - with around 35kg of plastic-packaging waste per capita.<sup>3</sup>

Japan is also home to several of the largest global consumer-goods, chemical and plastics companies. Despite this, the Japanese government has done little to address the global plastic pollution crisis. There remains no strong time-bound national framework or legislation for the reduction of single-use plastics, besides a plastic-bag fee with several loopholes. Voluntary commitments include a government target for corporations to reduce single-use plastics by 25% by 2030.<sup>4</sup>

### 4.10.1. Misleading recycling data

The plastic crisis is obscured by official figures, which inflate the national recycling rate and confuse citizens with inaccurate language. The oft-cited national recycling rate of 80-85% includes categories such as *'thermal recycling'* and *'chemical recycling'*, which are false solutions and misleading. The former is incineration, which accounts for 56% of plastics' end use in Japan; the latter, which includes liquefaction and gasification, accounts for 4%.<sup>5</sup>

The Japanese public is mostly unaware of this; a recent Greenpeace Japan survey found that 80% believe the plastic they so carefully sort through is recycled, rather than incinerated or exported abroad.<sup>6</sup> When all of this is factored in, Japan's true municipal recycling rate is just 23%. Even that figure is problematic, as it assumes the 14% total plastic waste exported to countries like China, Malaysia, and Thailand *is* recycled - rather than landfilled, burned or dumped in the environment, as investigations have found. The remainder of Japan's plastic waste (8%) is landfilled. There is some discrepancy in the figures for waste exports, which Greenpeace Japan claims accounts for 14% of plastic waste; other reports put the raw figure at, variously, 900,000 and 510,000 tonnes;<sup>7,8</sup> while the most recent figure - from Japan External Trade Organization, via Bloomberg - put the 2018 figure at more than 1 million tonnes.<sup>9</sup>

Prior to 2018, by some estimates, Japan was the second-biggest exporter of plastic waste to China (by weight). Those exports have completely stopped due to China's National Sword Policy. However, to date, this has had limited upstream impact in Japan due to authorities diverting plastic waste to other markets; in 2018, 80% of exports went to Thailand, Malaysia, Vietnam and Taiwan.<sup>10</sup> As those markets are also closing to waste imports, there are now reports that plastic waste is gathering in warehouses and other facilities in Japan. Despite this, the government has yet to put forth a meaningful plan to deal with this crisis. Without a clear policy to reduce plastic production, increase recycling capacity or introduce reuse at scale, Japan is likely to see a crisis with mounting plastic waste. Akira Sakano of Zero Waste Japan has observed early signs of economic challenges in the industry, with plastic recyclers at capacity and waste piling up across the country, and believes that, if action is not taken, the system could collapse.

### 4.10.2. Corporate laggards

Japanese brands are mostly lagging behind European and US brands, even when it comes to voluntary commitments. Of the 17 major retailers and consumer brands we investigated, only Kirin,<sup>11</sup> Coca-Cola Japan<sup>12</sup> and 7 & i Holdings<sup>13</sup> have time-bound commitments. Others merely mention either lightweighting plastic packaging (like Meiji,<sup>14</sup> Kao<sup>15</sup> and Lion<sup>16</sup>), commitments to use plant-based or biodegradable



plastics (like Lawson<sup>17</sup> and Nissin Foods<sup>18</sup>), or switching to paper packaging (like Sapporo<sup>19</sup>). Overall, the industry is lacking actionable plans to reduce plastic use or promote genuine circular-economy solutions, such as reuse or collection.

Japan has some strengths. The collection system is strong, despite the lack of a DRS, due to high resident awareness and education. High-quality PET bottles are recycled at a relatively high rate, though only partially reintroduced into the system. In 2017, bottle-to-bottle accounted for 25% of rPET, with the remainder going to textiles, sheets and moulding/industrial use. This figure has grown every year, more than doubling since 2012.<sup>20</sup> Besides PET, however, very little of Japan's plastic is getting recycled - most ends up being incinerated. Prior to 2018, Japan's efforts to expand mechanical recycling took a back seat to the growing demand for recyclable materials being sent to China, which undercut the economic viability of proposed recycling facilities.

What has been proposed either remains voluntary or focuses on false solutions. Both the government and brands have focused heavily on bioplastics or biodegradable plastics, which distract from the core problem of disposable single-use products. Worryingly, the govern-

ment - through partnerships, foreign aid and development agencies - is promoting solutions such as bioplastics and Japanese incineration technology to low- and middle-income countries, as both a waste-management and marine-litter solution.<sup>21</sup>

The case of Japan underlines how crucial it is to look beyond reported statistics to reveal the true fate of plastic. By collecting high volumes of packaging without any way to effectively recycle or reuse it - relying instead on end-of-pipe solutions, like incineration, gasification or waste exporting - the problem is hidden from consumers, who, in turn, will be less inclined to demand change from companies and government. Without mandatory collection and recycled-content targets, there is no incentive to improve recycling infrastructure - and, having invested heavily in incineration, there is a perverse incentive against finding better ways to tackle plastic waste.



Beverage bottles for sale in a Japanese supermarket

Credit: Pietro Bruni

A single banana wrapped in plastic

Credit: Pietro Bruni



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