

# Singapore's plastic use is Blindingly Excessive

By Terese Anne Teoh Hui Shan



*Figure 1. Plastic litter on the ground.*

*Image taken by author.*

Fifteen plastic bottles a second<sup>1</sup>. Thirteen plastic bags per person a day.<sup>2</sup> Plastics recycling rate fell from 11% in 2013 to 4% in 2019<sup>3</sup>. The downward trend shows no sign of abating. This article reveals consumer perceptions towards plastics, and proposes solutions for Singapore to tackle excessive plastic waste.

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<sup>1</sup>

<https://graphics.straitstimes.com/STI/STIMEDIA/Interactives/2019/11/singapore-plastic-problem-pet-bottles/index.html?shell>

<sup>2</sup> <https://www.straitstimes.com/politics/analysis-make-people-pay-to-use-plastic-bags>

<sup>3</sup>

[http://sec.org.sg/wp-content/uploads/2019/07/DT\\_PlasticResourceResearch\\_28Aug2018-FINAL\\_with-Addendum-19.pdf](http://sec.org.sg/wp-content/uploads/2019/07/DT_PlasticResourceResearch_28Aug2018-FINAL_with-Addendum-19.pdf)

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According to a survey of 70 respondents, 85% of Singaporeans believe excessive plastic waste will become a critical issue of national security in the future<sup>4</sup>. 64% of this group worry about Singapore lacking land space for a new landfill. The remaining proportion feel that it needlessly expends scarce oil resources.<sup>4</sup>

Some respondents were unconcerned, highlighting the lack of pollution resulting from plastics here, just like one Straits Times Forum Letter<sup>5</sup>.

The efficacy of the alternative, recycling, has been debatable, especially following China's ban on imported plastic scrap, which stalled recycling worldwide. Member of Parliament (MP) Mr Louis Ng reinforced that the core message should be, "Reduce". He revealed, some of Singapore's recycling was transported to the Middle East; it would not be environmentally friendly to ship recyclables there.<sup>6</sup>

Furthermore, plastics form the dominant fuel source for the incineration process; without plastics, the total energy generated from the waste-to-energy incineration plants would decrease<sup>7</sup>.

### **Resource Sustainability Act (for Packaging Waste)**

From 2020, all companies must report on packaging data and all plans to reduce, reuse or recycle the packaging. This will lay the groundwork for an Extended Producer Responsibility (EPR) framework for managing packaging waste including plastics.

However, making companies responsible for the packaging they produce has been controversial. At the World Economic Forum in January 2019, green groups like Greenpeace have criticized consumer products companies for their plastic packaging, for "looking to grow in markets that can't take more plastic". On the other hand, some consumer products

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<sup>4</sup> A survey of more than 70 respondents was conducted by this reporter. There was a door-to-door collection of results, so that respondents came from different parts of Singapore: West, Central and East. The survey also had a limited circulation via social media.

<sup>5</sup> <https://www.straitstimes.com/forum/letters-on-the-web/plastic-fight-in-singapore-pointless>

<sup>6</sup> An interview was conducted with MP Louis Ng on 20 January 2020 by this reporter.

<sup>7</sup> <https://www.eco-business.com/news/singapores-war-on-waste-is-there-a-better-way/>

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companies have argued that they cannot be blamed for improper plastic waste management.<sup>8</sup>

### **National Recycling Programme (NRP)**

This programme necessitates that all public waste collectors provide recycling bins and recycling services to all housing estates in Singapore. Recyclables are collected through this commingled recycling system, sent to the Materials Recovery Facilities (MRF) for sorting, before entering recycling facilities.

Proponents of the commingled recycling system say that this increases convenience. A 2014 Sustainability Report by Waste Management (WM) showed that when Madison, Wisconsin switched from a dual-stream recycling to a single-stream one, the amount of recyclables collected soared by 40%<sup>9</sup>.

However, critics say that the risk of contamination runs higher in these recycling systems. A 2010 study by WRAP UK found:

*"[There are] quality problems from three sources: householders putting the 'wrong' materials into the collection, compaction of the waste which breaks glass into small pieces and tends to bind materials together, and the technical and physical capacity of the MRF to separate materials in the volumes delivered to them."*<sup>10</sup>

In a survey that I conducted, 62% of respondents disagreed that the government campaigns in 2019 were effective.<sup>4</sup> Two of the most popular ideas are listed.

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<https://www.straitstimes.com/world/europe/consumer-goods-ceos-in-davos-hot-seat-over-plastic-waste>

<sup>9</sup> [https://www.wm.com/sustainability/pdfs/2014\\_Sustainability\\_Report.pdf](https://www.wm.com/sustainability/pdfs/2014_Sustainability_Report.pdf)

<sup>10</sup>

<https://www.wrap.org.uk/sites/files/wrap/Choosing%20the%20right%20recycling%20collection%20system.pdf>

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## Making reusables as convenient an option as disposables

A survey conducted by the Ministry of Environment and Water Resources (MEWR) showed that convenience was the top reason for recycling regularly<sup>11</sup>. Similarly, the survey I conducted showed that for those who do not try to reduce their plastic footprint, convenience trumped other reasons. With the convenience-first culture here making reusables on par with disposables in this aspect is necessary in helping Singaporeans make the transition.

Plastic-Lite Singapore, a volunteer group, works with grassroots organizations on Bounce Bags. It is a reusable bag-sharing point for people to donate and take bags for shopping<sup>12</sup>.



Figure 2. A Bounce Bags bag-sharing point, at Heartbeat@Bedok in 2019. Retrieved from: <https://www.facebook.com/SayNoToPlasticsSG/>

The National University of Singapore's (NUS) environmental group, Students Against the Violation of the Earth, launched Project Box to spur people to opt reusables over disposables<sup>13</sup>. Participants are rewarded whenever they takeaway in reusable boxes. Food or beverage discounts are awarded upon accumulating a number of points.

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<sup>11</sup>

<https://www.nea.gov.sg/media/news/news/index/60-per-cent-of-singaporean-households-recycle-regularly>

<sup>12</sup> <http://plasticlite.sg/bounce-bags>

<sup>13</sup> [https://uci.nus.edu.sg/oes/wp-content/uploads/sites/11/2018/04/Oct13\\_2017\\_NUS\\_SAVE\\_Lunchbox\\_Rental\\_Initiative.pdf](https://uci.nus.edu.sg/oes/wp-content/uploads/sites/11/2018/04/Oct13_2017_NUS_SAVE_Lunchbox_Rental_Initiative.pdf)

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Still, these schemes may be ineffective. Last year, Eco-Business writer Robin Hicks wrote about the failure of the reusable box sharing initiative, Makanai Box Concept. Hicks suggests that issues included poor marketing, inappropriate location, and that the sharing economy for food containers has yet to be popularized<sup>14</sup>.

### **Tax on single-use plastic**

In October 2018 and August 2019, MPs called for a plastic bag tax.<sup>15,16</sup>

Addressing concerns of lacking bags for bin lining, MP Mr Louis Ng pointed out that a charge is not a ban, thus decreasing unnecessary consumption. Dr Amy Khor, Senior Minister of State for the Environment and Water Resources, responded that it might divert businesses to other less eco-friendly alternatives<sup>16</sup>. MEWR's research showed paper bags require greater land clearing and water use than plastic bags.<sup>17</sup> However, there has been no evidence that this would be a move taken by most businesses.

Charging for plastic bags can decrease use. In October 2015, shoppers in Britain were charged five pence for each single-use plastic bag received. That had tremendous implications: in two years, plastic use fell by 86 per cent<sup>18</sup>. Similar trends are noticed in Singapore. When Japanese lifestyle brand Miniso started imposing a ten cents charge per

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<sup>14</sup>

<https://www.eco-business.com/news/why-is-this-reusable-container-scheme-in-singapore-not-working/>

<sup>15</sup>

<https://www.straitstimes.com/politics/parliament-mp-calls-for-carrier-bag-charges-as-a-way-to-reduce-plastic-waste>

<sup>16</sup>

<https://www.channelnewsasia.com/news/singapore/plastic-bag-surcharge-mewr-mps-reiterate-11785132>

<sup>17</sup>

<https://www.nea.gov.sg/docs/default-source/media-files/news-releases-docs/cos-2018-media-factsheet-for-lca-study-findings.pdf>

<sup>18</sup>

<https://www.gov.uk/government/news/plastic-bag-sales-in-big-seven-supermarkets-down-86-since-5p-charge>

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plastic bag, plastic bag use dropped by 75 per cent<sup>19</sup>. Miniso did not switch to other types of single-use bags.

There is ground support for the surcharge. Reports by The Straits Times show most are supportive of a tax<sup>20</sup>. The Fairprice Group CEO Seah Kian Peng also hopes that more corporates and retailers in Singapore would implement taxes by 2020<sup>21</sup>.

## **Conclusion**

Our plastic problem is a daily reminder of the indifference towards the environment. For many, throwing waste in excess remains a right, even if it should create wicked problems - both locally and overseas - that no one knows how to solve. Our plastic overuse spills over to recycling contamination, littering and poor e-waste recycling.

That is the most harmful impact of plastic. A common dependency; it has cemented into an individualistic mindset that stifles Singapore's green movement. To begin afresh, excessive plastic must first be swept out of the way.

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<sup>19</sup> <https://www.straitstimes.com/opinion/3-billion-plastic-bags-a-year-cut-use-with-mandatory-tax>

<sup>20</sup>

<https://www.straitstimes.com/singapore/environment/consumers-generally-supportive-of-plastic-bag-surcharge-which-kicks-in-at>

<sup>21</sup>

<https://www.channelnewsasia.com/news/singapore/plastic-bag-charge-not-a-small-step-for-singapore-ntuc-fairprice-12082378>

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## Citations

1. Straits Times (2019, November 24). Singapore's Plastic Problem: Where would your PET bottles take you? Retrieved from The Straits Times website:  
<https://graphics.straitstimes.com/STI/STIMEDIA/Interactives/2019/11/singapore-plastic-problem-pet-bottles/index.html?shell>
2. Tan, A. (2018, March 6). Make people pay to use plastic bags, Politics News & Top Stories -. Retrieved from The Straits Times website:  
<https://www.straitstimes.com/politics/analysis-make-people-pay-to-use-plastic-bags>
3. A Position Paper by the Singapore Environment Council. (2019, July). Consumer Plastic and Plastic Resource Ecosystem in Singapore. Retrieved from:  
[http://sec.org.sg/wp-content/uploads/2019/07/DT\\_PlasticResourceResearch\\_28Aug2018-FINAL\\_with-Addendum-19.pdf](http://sec.org.sg/wp-content/uploads/2019/07/DT_PlasticResourceResearch_28Aug2018-FINAL_with-Addendum-19.pdf)
4. A survey of 60 respondents was conducted by this reporter. There was a door-to-door collection of results, so that respondents came from different parts of Singapore: West, Central and East. The survey also had a limited circulation via social media. The results of the survey can be found here:  
<https://www.surveylegend.com/s/1y1f>
5. Kwan, K. (2018, October 6). Plastic fight in Singapore pointless. Retrieved from:  
<https://www.straitstimes.com/forum/letters-on-the-web/plastic-fight-in-singapore-pointless>
6. An interview with MP Louis Ng was conducted by this reporter on 20 January 2020.
7. Feng, Z. (2019, June 26). Singapore's war on waste - is there a better way? Retrieved from Eco-business website:

---

<https://www.eco-business.com/news/singapores-war-on-waste-is-there-a-better-way/>

8. DiNapoli, J. and Bendeich, M. (2019, January 26). Consumer goods CEOs in Davos hot seat over plastic waste. Retrieved from:  
<https://www.reuters.com/article/us-davos-meeting-plastic/consumer-goods-ceos-in-davos-hot-seat-over-plastic-waste-idUSKCN1PJ1WZ>
9. Waste Management. 2014 Creating a Circular Economy Sustainability Report. Retrieved from:  
[https://www.wm.com/sustainability/pdfs/2014\\_Sustainability\\_Report.pdf](https://www.wm.com/sustainability/pdfs/2014_Sustainability_Report.pdf)
10. WRAP UK. (n.d.) Choosing the right recycling collection system. Retrieved from:  
<https://www.wrap.org.uk/sites/files/wrap/Choosing%20the%20right%20recycling%20collection%20system.pdf>
11. MEWR and NEA joint news release report. (2019, April 29). 60 percent of Singaporean Households Recycle Regularly. Retrieved from NEA website:  
<https://www.nea.gov.sg/media/news/news/index/60-per-cent-of-singaporean-households-recycle-regularly>
12. Plastic-Lite Singapore Bounce Bags. Retrieved from: <http://plasticlite.sg/bounce-bags>
13. NUS Students Against the Violation of the Earth (SAVE). (2017, October 13). NUS SAVE's Lunchbox Rental Initiative @ The Deck Canteen. Retrieved from:  
[https://uci.nus.edu.sg/oes/wp-content/uploads/sites/11/2018/04/Oct13\\_2017\\_NUS\\_SAVE\\_Lunchbox\\_Rental\\_Initiative.pdf](https://uci.nus.edu.sg/oes/wp-content/uploads/sites/11/2018/04/Oct13_2017_NUS_SAVE_Lunchbox_Rental_Initiative.pdf)
14. Hicks, R. (2019, December 10). Why is this reusable container scheme in Singapore not working? Retrieved from:

---

<https://www.eco-business.com/news/why-is-this-reusable-container-scheme-in-singapore-not-working/>

15. Abdullah, Z. (2018, October 2). Parliament: MP calls for carrier bag charges as a way to reduce plastic waste. Retrieved from:

<https://www.straitstimes.com/politics/parliament-mp-calls-for-carrier-bag-charges-as-a-way-to-reduce-plastic-waste>

16. Mohan, M. (2019, August 2). MPs reiterate call for plastic bag surcharge; MEWR says focus is on reducing excessive use of all disposables. Retrieved from:

<https://www.channelnewsasia.com/news/singapore/plastic-bag-surcharge-mewr-mps-reiterate-11785132>

17. Ministry of Environment and Water Resources and National Environment Agency.

(2018) Factsheet on Findings From Life-cycle Assessment Study on Carrier Bags and Food Packaging. Retrieved from:

<https://www.nea.gov.sg/docs/default-source/media-files/news-releases-docs/cos-2018-media-factsheet-for-lca-study-findings.pdf>

18. Smithers, R. (2016, July 30). England's plastic bag usage drops 85% since 5p charge introduced. Retrieved from:

<https://www.theguardian.com/environment/2016/jul/30/england-plastic-bag-usage-drops-85-per-cent-since-5p-charged-introduced>

19. Tan, A. (2017, October 5). 3 billion plastic bags a year? Cut use with mandatory tax.

Retrieved from:

<https://www.straitstimes.com/opinion/3-billion-plastic-bags-a-year-cut-use-with-mandatory-tax>

- 
20. Tan, A. (2019, September 16). Many consumers supportive of new plastic bag surcharge at some Fairprice outlets. Retrieved from:  
<https://www.straitstimes.com/singapore/environment/consumers-generally-supportive-of-plastic-bag-surcharge-which-kicks-in-at>
21. Ang, H. M. (2019, November 11). Plastic bag charge 'not a small step for Singapore': Fairprice Group CEO. Retrieved from:  
<https://www.channelnewsasia.com/news/singapore/plastic-bag-charge-not-a-small-step-for-singapore-ntuc-fairprice-12082378>