

ZERO WASTE MASTERPLAN PUBLIC ENGAGEMENT REPORT

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Ministry of the Environment
and Water Resources
— SINGAPORE —



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INTRODUCTION

The Ministry of the Environment and Water Resources (MEWR) has published our inaugural Zero Waste Masterplan. It maps out our key strategies to build a sustainable, resource-efficient and climate-resilient nation. This includes adopting a circular economy approach to waste and resource management practices, and shifting towards more sustainable production and consumption.

2 In formulating the Masterplan, MEWR and the National Environment Agency (NEA) had sought diverse views from stakeholders including companies, non-governmental organisations (NGOs), households and youths. We consulted more than 250 companies through industry engagements and conducted door-to-door surveys with more than 5,000 households. In March 2019, an online public consultation on the masterplan was conducted. This was followed by two focus group discussions in April 2019 to delve deeper into specific issues.

3 This report details findings from the online consultation in March 2019, and key suggestions from the discussions in April 2019.

OVERVIEW OF ENGAGEMENT

4 From 7 to 31 March 2019, a public online consultation was conducted to seek views on how Singapore could address three key waste streams: food waste; electrical and electronic waste (e-waste); and packaging waste (including plastics). Views on how we could help households recycle better were also sought. The consultation was publicised via the REACH website, social media platforms and through MEWR's key partners from the 3P sectors (People, Private and Public). The consultation garnered over 1,300 responses.



Participants sharing their views at the FGDs on how to reduce waste and help households recycle better.

5 On 18 and 29 April 2019, two focus group discussions were held to delve deeper into the issues. The discussions focused on the following themes: i) ‘Adopting a Zero Waste Mindset: Towards Sustainable Consumption’; and ii) ‘Recycling Right’. A total of 90 participants from the 3P sectors attended the sessions. Members of public who took part in the online consultation were also invited to take part.

6 The discussions were co-organised with NGOs Zero Waste SG and LepakInSG. The NGOs helped to frame questions for discussion, and facilitated the sessions. Mr Masagos Zulkifli, Minister for the Environment and Water Resources, and Dr Amy Khor, Senior Minister of State for the Environment and Water Resources, and members of the Government Parliamentary Committee (GPC) for the Environment and Water Resources, attended the sessions as observers.

FINDINGS AND KEY SUGGESTIONS

Findings from the Online Consultation

7 The following questions were asked in the online consultation:

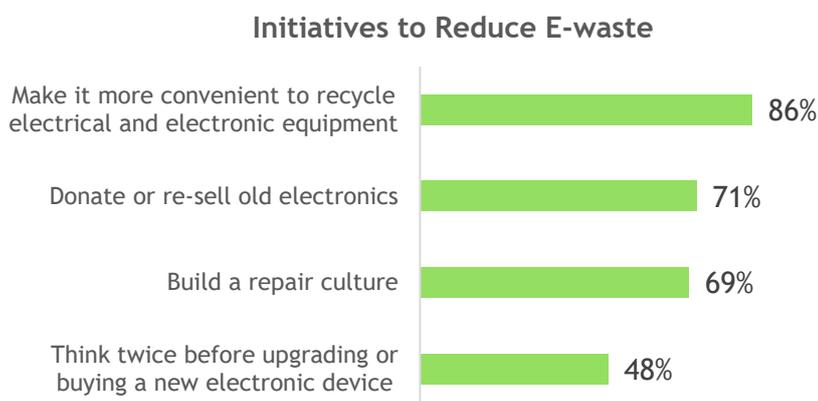
- How can we reduce food waste?

- How can we reduce e-waste?
- How can we reduce packaging waste, including plastics?
- How can we help households to recycle right?

8 On reducing food waste, more than 70 per cent of respondents supported making it more convenient to donate excess unexpired food, and to encourage restaurants and other food retailers to offer consumers the option of smaller food portions.



9 For e-waste, 86 per cent of respondents supported making it more convenient to recycle electrical and electronic equipment, while about 70 per cent supported donating or re-selling old electronics, and building a repair culture.



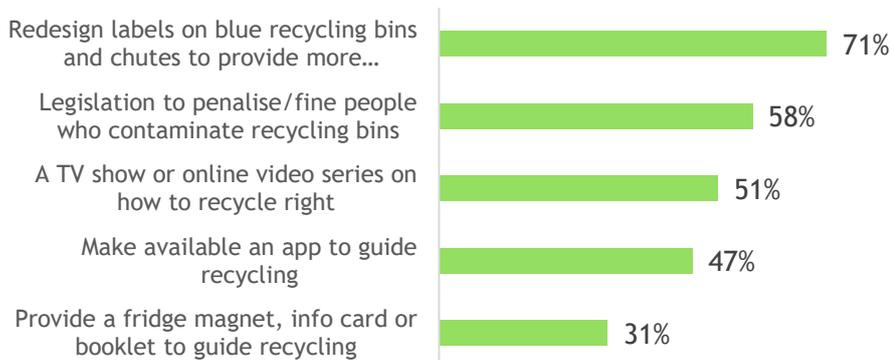
10 On reducing packaging waste (including plastics), almost 90 per cent of respondents were in favour of encouraging people to bring their own reusable bags and containers. About 70 per cent of respondents supported reusing packaging products whenever possible, providing convenient recycling points, and avoiding the purchase of bottled water.

Initiatives to Reduce Packaging Waste, including Plastics



11 When asked how we could improve the way households recycle, 71 per cent of respondents supported redesigning labels on blue recycling bins to provide more information on recycling.

Initiatives to Help Households Recycle Right



Focus Group Discussion 1: Encouraging Sustainable Consumption

Food Waste

11 The following questions on food waste were considered in the discussion held on 18 April 2019:

- 1) Share what you are doing to reduce food waste at home.
- 2) How can we make it more convenient for people to donate excess and unexpired food?
- 3) Do you think we should have a law to support food donations?
- 4) How can we encourage a reduction in food waste and an increase in food waste recycling for these groups?
 - a. individuals/households
 - b. restaurants/food outlets
 - c. supermarket/markets

12 Participants reduced food waste mainly by buying and cooking only what they needed, and using leftovers for their next meal. Many used food preservation techniques to deal with surplus food, e.g. freezing unused food to lengthen their shelf life, or fermenting food items. Some participants segregated food waste at home to turn it into eco-enzyme cleansers or compost.

i) Motivation for Reducing Food Waste

13 Participants indicated that they were more likely to donate excess and unexpired food if:

- Donation of food was convenient for them
 - Participants suggested organising food donation drives at the void deck or nearby shopping malls, tapping on food rescue organisations like SG Food Rescue or leveraging mobile applications like Treasure, which reallocates excess food resources to people

- They were aware of the beneficiaries of the food
 - Participants suggested using a matching platform to enable people to transfer excess food items to beneficiaries directly
 - There could be a constituency-based centralised food donation network where the more well-off could give food away to the people within their community through a matching system
 - Another suggestion was to dedicate a place within the supermarket for food donations, accompanied with pictures of the beneficiaries

- There was a law to support food donations and protect food donors from liability
 - Participants felt that the law should protect all donors, including suppliers, equally
 - Guidelines should also be provided for donors and beneficiaries to ensure that the donated food was safe for consumption.

ii) Roles of Key Stakeholders in Reducing Food Waste

14 Participants raised several suggestions on possible ways that key stakeholders could help to reduce food waste:

- Food establishments:
 - Offer food options with smaller portion sizes and lower prices
 - Take ownership of their waste and donate excess food
 - Report the amount of food waste they generate

- Hawkers could buy ingredients together in bulk from the same food supplier.

- Government:
 - Provide incentives or reduce the conservancy charge of households that recycle food waste
 - Offer tax reliefs to food establishments for donation of edible food to charities
 - Promote a Business-to-Business (B2B) model where businesses collaborate to increase the consumption of ugly food
 - Legislate that all food imported to Singapore be right-sized
 - Legislate an Extended Producer Responsibility (EPR) for Food Waste

- Supermarkets to dedicate a section to items near their expiry dates, and sold at reduced prices. Unsold food could be passed on to low-income families or businesses that were less sensitive to freshness of food.

- Producers and importers should be required to clearly indicate expiry dates and sources of ingredients, on food items.

iii) Changing mindsets about food

15 Participants believed that it was fundamental to change mindsets about food, in order to nudge people towards reducing food waste. They felt that it was important for people to appreciate how food came to the table. They suggested that stories of farmers who laboured to grow and harvest food should be shared to raise awareness among the public. There could also be food education programmes in schools to teach children that food was a scarce commodity. Some participants also felt that it would be ideal to brand the eco-movement to be something truly Singaporean and to get people to see waste as a precious resource.

Packaging Waste and E-Waste

16 Discussions on packaging and e-waste focused on the following questions:

- 1) How can we get Singaporeans and businesses to adopt a zero waste mindset?
- 2) How can we encourage consumers to opt for less packaging?
- 3) What other ideas do you have to better manage packaging waste in Singapore?
- 4) How can we make it more convenient for people to recycle their e-waste?

17 Participants felt that children played an important role as advocates in reducing waste as they could influence their parents to adopt zero waste habits. They suggested for the Ministry of the Education (MOE) to amend the Character and Citizen Education (CCE) syllabus to encourage students to appreciate scarce resources, and to take on pilot projects in waste reduction. Beyond schools, targeted messages should also reach other segments of population, including young working adults or senior citizens.

i) Encouraging Consumers to Use Less Packaging

18 Participants suggested the following ways to encourage consumers to opt for less packaging:

- Businesses:
 - Allow consumers to choose products with less packaging or opt out of provision of single-use disposables.
 - Participants cited food delivery companies like Foodpanda which gave customers the option of cutlery-free delivery
 - Use biodegradable packaging such as newspapers and banana leaves, or to adopt a packaging-free business model like Unpackt

- Do a life cycle analysis on major consumer items and utilise a labelling system to aid consumers to make informed choices on buying products with less packaging
- Supermarkets:
 - Set up packaging collection centres for shoppers to get rebates when they return packaging for recycling
 - Offer more loose items without packaging
- Government:
 - Expand the Extended Producer Responsibility framework for E-Waste to encourage electrical companies to reduce the amount of plastic packaging in their products
 - Implement charge to limit availability of packaging
 - Government to sponsor reusable cutleries in community events to reduce the reliance on single-use disposables
 - Impose maximum annual target amounts of packaging that businesses must adhere to
 - Participants commented that the Singapore Packaging Agreement (SPA) should be made mandatory for large producers of packaging waste, before rolling out to all companies
 - SPA to also consider setting a packaging limit as an overall industry standard.

19 The idea of imposing a charge on plastic bags was raised. Participants had mixed views as to whether a charge should be imposed. While some participants felt that a plastic bag charge would discourage consumers from taking plastic bags, others felt that consumers should be taught to refuse plastic bags instead.

Some participants also noted that plastic bags were re-used by households, to bag their trash.

ii) Generating Awareness and Improving Ease of Recycling

20 Participants mentioned that educating consumers against conspicuous consumption was important. There was also a need to increase awareness of what could be done with e-waste and how it could be recycled. They noted that people were generally less comfortable to recycle electronic devices due to data privacy concerns. Suggestions included:

- Making information on the location of e-waste recycling bins available on the OneService App
- E-waste collection bins could be located closer to/in the heartlands and near the blue recycling bins; Or there could be a one-stop bin centre for residents to place all their recyclables
- E-waste recycling bin slots should be enlarged to accommodate larger devices like printers and monitors.

iii) Extending Lifespan of Electronic/Electrical Products

21 Participants observed that there was no prevalent culture of repairing items, and repairing the items might cost more than getting a new one. There were also instances where repairing e-waste was difficult as there were no replacement parts available. Some suggestions included:

- Imposing regulatory levers on businesses to guarantee a minimum durability period for their electronic products
- Engaging manufacturers to extend the lifespan of products or provide backwards compatibility
- Encouraging and incentivising companies to design items with sustainable components and recycling at the end of its life cycle
- Community Centres and Residential Committees could have a Tool Library to promote a share and repair culture within the community.

Focus Group Discussion: Building a Culture of Recycling Right

22 The following questions were discussed at the FGD on ‘Recycling Right’ on 29 April 2019:

- 1) How can we encourage more households to recycle?
- 2) How can we make recycling a habit and social norm?
- 3) How can we improve education on recycling?
- 4) Would imposing a penalty on the contamination of recycling bins deter people from recycling?

23 Participants shared that there was a lack of ownership and confidence in recycling due to a lack of education and knowledge about recycling. There should thus be greater transparency and education on the recycling processes in Singapore.

24 Participants also remarked that the current recycling drives were largely voluntary in nature and could be made compulsory. There should also be better infrastructure in place to encourage households to recycle. Legislation was important in levelling the playing field among companies pursuing green strategies, so that it would not be detrimental to a company’s business model. Beyond educational institutions, recycling messages should target all segments of population, including working adults, senior citizens and domestic helpers who were responsible for waste management in households.

i) Encouraging Households to Recycle Right

25 Participants suggested the following ways to encourage households to recycle right:

- Providing incentives for households to recycle, for e.g. through ‘cash for trash’ schemes or ‘reverse vending machines’
- Having a segregation centre for people to deposit their recyclables
- Having segregated recycling bins instead of comingled bins
- Making a clearer differentiation between recycling bins and general waste bins
- Providing clearer labelling on bins on what can or cannot be recycled
- Recycling instructions on the bin should be printed in multiple languages
- Having a transparent window at the bin to assess contamination or creating openings specific to the items that they could hold
- Having a QR code on the bin to provide information on recycling, such as the ISO-certification of recycling companies, where recyclables were sent to or the locations of recycling points
- Developing an application which could identify if an item was recyclable when the public submitted a picture or a query about it

- Recycling bins should be placed near playgrounds and in malls where it is easily accessible for parents and children
- Specific recyclables could be collected on separate days (for e.g. collecting plastics on Monday and glass on Tuesday) in designated recycling trucks
- Having informal collectors go door-to-door to collect recyclables could increase convenience in recycling
- Rallying the community to help create a nation-wide movement to recycle.

ii) Improving Education on Recycling

26 Participants also suggested the following ways to improve education on recycling:

- Having green ambassadors in schools to cultivate a culture of recycling
- Organising educational visits to Palau Semakau and Materials Recovery Facilities (MRF) to raise teachers' and students' awareness of the waste situation in Singapore
- Singaporeans should be encouraged to recycle daily instead of only during one-off events
- Creating a catchy jingle or a '3-step recycling message' to teach children about recycling. Having a memorable and identifiable mascot to advocate recycling would also be useful.

- Playing recycling videos frequently during community events or incorporating recycling messages within MediaCorp drama serials could help to educate members of the public.

iii) Penalising Contamination of Recycling Bins

27 There were mixed responses from participants when they were queried on whether there should be a penalty on the contamination of recycling bins. Those who were not supportive of a penalty highlighted the following concerns:

- Imposing penalties could deter people from recycling or increase littering
- The public should be provided with adequate information about recycling before a penalty is imposed
- There should be a system to determine the accountability for contamination in view that the recycling bin is shared, and it is also difficult to quantify the amount of waste thrown by an individual.

28 Those who were supportive of a penalty suggested the following ideas:

- Label recycling bags with unit numbers so that it would be easy to pin accountability to households who were not recycling right
- Ensuring that the blue bins are constantly under surveillance
- Penalty for contamination should be pegged to the cost of disposing one recycling bin's worth of recyclables from the MRF
- Community volunteers could also be empowered to enforce the penalties.

FUTURE PLANS

29 Achieving Singapore's vision of a Zero Waste Nation is a long-term endeavour that requires a whole-of-society effort. We are grateful to all the participants for their contributions, and will look into how we may follow up on the suggestions.

30 As a follow-up from the consultation, we are convening a Citizens' Workgroup in September and October 2019 to co-develop solutions with Singaporeans, to improve recycling by households. We will continue to work closely with the People, Public and Private sectors to put the Zero Waste Masterplan into action, and implement a circular economy approach to waste management in Singapore.