

**WWF-Hong Kong
Recommendations for Control of Single-use Plastics**



Plastic pollution is a global crisis that requires urgent, robust and global-scale action by governments, business and the wider public. Sadly, Hong Kong illustrates this situation only too well, with chronic plastic pollution throughout the city, our terrestrial nature and, especially, our oceans. Thus, the current development of a policy on single-use plastic is both critical, timely and vital.

To address the plastic pollution crisis and stop leakage into the environment, WWF and partners are advocating for a UN-based, global legally binding agreement, a proposal supported by governments, scientist, academics, and businesses.

Hong Kong, as a leading international city, must lead the way to solve the plastic crisis by stopping the flow of plastics from entering nature, through: the elimination of unnecessary plastic; doubling reuse, recycling, and recovery; and ensuring the remaining plastic is sourced responsibly. Effective waste management systems and bold, new, and legally binding instruments are needed to combat marine plastic pollution.

WWF-Hong Kong appreciates the Council for Sustainable Development's effort in leading the public engagement exercise on the control of single-use plastics. To align with the mission to reverse nature loss and to be nature positive by 2030 under the Convention on Biological Diversity's post-2020 Global Biodiversity Framework (GBF), WWF-Hong Kong advocates the vision of "No Plastic in Nature by 2030". To achieve this, all plastic and other materials should be transitioned to a *circular economy*¹. Implementing the following target and strategies would provide critical components of that transition:

- **Target: No Plastic in Nature by 2030**
A clear, science-based target must be established and monitored. Study to be conducted to understand baseline situation in Hong Kong. Policy must be regularly reviewed and enhanced based on scientific data and advances in technology.
- **Strategy 1: Transition to Circular Economy**
Prioritise the approaches of "reduce > reuse > recycle > disposal" as a *hierarchy*: i.e. reductions in material use should be the first priority, followed by reuse, etc. Whenever possible, reduce use of virgin plastic. Consider the whole life cycle and ensure proper end-of-life for different materials, single use or otherwise. Ensure reusable and recycled materials become part of the economy.
- **Strategy 2: Eliminate single-use culture and behaviour for all materials**
Single-use alternatives are not the long-term solution, and will often just lead to new problems. Overconsumption of any kind of material will have high environmental costs.
- **Strategy 3: Holistic waste management policy**
The single-use plastic policy must be integrated with the waste management policy, along with other action plans, such as the Biodiversity and Strategy Action Plan and Climate Action Plan. Such holistic policy can help fulfil action target 7 of the GBF. These policies will have maximum impacts and synergies if they are compatible with each other.

¹ WWF. (2019). No Plastic in Nature: A Practical Guide for Business Engagement. Retrieved on November 27, 2021 from <https://www.worldwildlife.org/publications/no-plastic-in-nature-a-practical-guide-for-business-engagement>

Further, we recommend the following short to medium term policies for consideration and adoption by the Council in the final report. We believe these recommendations can set the stage for the long-term transition to a circular economy:

Proposed policies and implementation timelines

1. Setting an overall plastic reduction target and timeline to achieve the vision of “No Plastic in Nature by 2030”.

The Hong Kong Government should develop monitoring mechanisms for both 1) overall plastic usage reduction and 2) plastic that leaks to the environment, in both physical and chemical forms.

2. Recurrent review and enhancement on both the scope of control and management strategy.

The Public Engagement on Control of Single-use Plastics consultation paper listed 9 categories of single-use plastic that should be put under control. We strongly support the urgent control of all these items. However, the list in the document does not cover every single-use plastic product that we can find in the Hong Kong market, and new single-use products will potentially emerge in the future. Thus, the scope of products and the management strategy should be reviewed every two years.

3. Bring forward the timelines for control of current listed single-use plastic products to 2025.

Given the severity and urgency of the plastic crisis in Hong Kong, and the broad support in both business and the broader public for urgent action, WWF advocates all the listed single-use products, including both locally produced and imported, must be controlled by 2025.

4. Expand the plastic recycling pilot scheme to all districts by 2022 and ensure transparency throughout the logistic chain.

With the success of the Plastic Recycling Pilot Scheme in three districts, we urge the government to rapidly expand the scheme to *all* districts. However, a critical limitation to recycling effectiveness is broad and long standing scepticism from the general public about whether their recyclables are really passed to recyclers by the collectors (e.g. the private housing management)².

Research highlight the importance of traceability in municipal solid waste system³. WWF strongly recommends increasing the logistic transparency between the collectors and the recyclers, combined with awareness engagement. To build public trust, both collectors and recyclers must disclose both amounts of collected recyclables, collection location, and amounts of successfully recycled material. These amounts should be publicly available in a transparent system, such as an online platform.

² HK01. (2020). GPS trackers reveal household management discard recyclables to landfill. Retrieved on November 27, 2021 from <https://www.hk01.com/01%E5%81%B5%E6%9F%A5/482469>

³ Knickmeyer, D. (2019). Social factors influencing household waste separation: A literature review on good practices to improve the recycling performance of urban areas. *Journal of Cleaner Production*, 118605.

Alternatives

5. Prevent the shift of overconsumption towards other single-use alternatives.

Apart from discouraging the use of single-use plastic, the policy should also discourage the adoption of other single-use alternatives and promote a sustainable lifestyle.

Switching from single-use plastic products to other single-use alternatives may not be a nature and climate positive outcome. Specifically, depending on the location and supply chains, the use of paper products may well lead to a higher environmental and carbon footprint: research from Singapore suggests that a switch from plastic bags to paper bags could lead to a higher environmental footprint and eco-toxicity potential⁴. Compared with plastic bag production, paper bag production causes more air pollution and chemical pollution, with similar results from research from Spain⁵. Thus, switching to alternative materials may not reduce environmental impact and highlighted the importance of reuse and reduction to minimise environmental footprint.

Therefore, the regulation should be well designed to avoid the shift to any single-use alternative, to focus on reducing overconsumption and transitioning to a circular economy, providing the long-term solution.

6. Modified plastics, such as biodegradable or compostable plastics, are only viable if coupled with comprehensive recovery schemes and appropriate facilities.

No plastic or other disposable waste should be destined for the natural environment. Many biodegradable plastics will only *properly* degrade under specific conditions, conditions which are unlikely to be available in Hong Kong. A three year research program in the UK exposed commercially available degradable plastic to the natural environment. It concluded that there is no scientific evidence that oxo-biodegradable or biodegradable formulations can help alleviate the litter problem in the natural environment⁶. It is worth noting that some of the materials tested are currently commercially available in Hong Kong.

WWF emphasizes that modified plastic would only be viable *if coupled with the appropriate facilities*. Local recyclers state that these “degradable” plastics actually contaminate the existing conventional plastic recycling stream. In most cases, there are not suitable separated recycled infrastructure for modified plastics in Hong Kong.

The Hong Kong government should therefore evaluate carefully the compatibility between modified plastics and our recycling and waste treatment facilities and infrastructure. Clear standards and guidelines should be developed to restrict modified plastic products that are not compatible to Hong Kong market, and the standards and guidelines should be updated periodically to take account of changes in technological availability.

⁴ Ahamed, A., Vallam, P., Iyer, N. S., Veksha, A., Bobacka, J., & Lisak, G. (2021). Life cycle assessment of plastic grocery bags and their alternatives in cities with confined waste management structure: A Singapore case study. *Journal of Cleaner Production*, 278, 123956.

⁵ Civančik-Uslu, D., Puig, R., Hauschild, M., & Fullana-i-Palmer, P. (2019). Life cycle assessment of carrier bags and development of a littering indicator. *Science of The Total Environment*, 685, 621–630.

⁶ Napper, I. E., & Thompson, R. C. (2019). Environmental deterioration of biodegradable, oxo-biodegradable, compostable, and conventional plastic carrier bags in the sea, soil, and open-air over a 3-year period. *Environmental Science & Technology*, 53(9), 4775–4783.

Our waste treatment system should always prioritize “reduce > reuse > recycle > disposal”, as a *hierarchy*. Critically, as part of the circular economy, materials should be recaptured, minimising disposal and never leaked to the natural environment.

Single-use plastic regulation

7. Banning all single-use retail packaging on fruits and vegetables by 2025.

These plastic packaging are rarely suitable for reuse for other purposes. Package-free fruits and vegetables are currently available in the wet market. Under these circumstances, no extra packaging should be added at the point of retail.

Spain and France are committed to banning plastic packaging on fruits and vegetables, with France having a timeline to ban plastic packaging on 30 vegetables and fruits progressively⁷. The ban will start in 2022 and be fully implemented in 2025.

8. Banning all single-use food trays and platter made of Expanded Polystyrene (EPS), PVC (Type 3 plastic), mixed plastic (Type 7 plastic) and degradable plastic by 2025.

PET (Type 1 plastic), HDPE (Type 2 plastic) and PP (Type 5 plastic) are widely available in the food supply chain as short-term alternatives, and are much more suitable for recycling. In contrast, EPS, PVC and Type 7 plastic are not widely accepted by recyclers in Hong Kong: the bulkiness of EPS makes it less efficient for transportation and adds cost to recycling; PVC produces hazardous fumes during the production and recycling process; and mixed plastic usually has a lower recycling value as are a mixture of different plastic and chemicals. In the absence of plans for waste treatment facilities for biodegradable or compostable plastic, these items should be banned to prevent contamination in the recycling chain for conventional plastic.

9. Require comprehensive labelling of plastic types and recommended end-of-life treatment by 2025.

In order to facilitate collection and recycling, these remaining plastic items should be labelled properly with the type of plastic and suggested waste treatment methods. Research shows that well-designed recycling labels can inform consumers about packaging recyclability and increase diversion of recyclable materials from the waste stream⁸. Guidelines should be developed regarding the design and size of the information.

The United Nations Environmental Programme (UNEP) has assessed labels for recycling guidance worldwide⁹. Figure 1 shows examples of well-designed labels, according to the assessment. The label should be clear, easy to follow and appropriate to context of Hong Kong facilities etc. Furthermore, the label should clearly state the recycling information for each layer/component of packaging (e.g. box, bag, bottle, cap, etc.). If there is any modified degradable plastic exist in the product, the labelling should prevent them from entering the recycling stream for conventional plastic. The

⁷ Euronews. (2021, October 12). France to ban plastic packaging for 30 fruit and vegetables. Retrieved November 27, 2021, from <https://www.euronews.com/2021/10/12/france-to-ban-plastic-packaging-for-30-fruit-and-vegetables>

⁸ Buelow, S., Lewis, H., & Sonneveld, K. (2010). The role of labels in directing consumer packaging waste. *Management of Environmental Quality: An International Journal*, 21(2), 198–213.

⁹ United Nations Environment Programme & Consumers International (2020). “Can I Recycle This?” A Global Mapping and Assessment of Standards, Labels and Claims on Plastic Packaging.

recyclers emphasize that these labels should be easily removable during the recycling process. In addition, feedback mechanisms should be established between the recyclers and distributors if the distributor failed to label the plastic correctly.

Since imported food would likely come with consumer packaging, it is very important to include them in the policy. According to the Research Office of Legislative Council Secretariat, 90% of the total food supplies in Hong Kong are imported¹⁰. For imported items that do not come with a compatible recycling label, distributors should be required to add extra labelling, as currently required for food nutrition labelling in Hong Kong¹¹.










Label	Name & Description	Geographic Relevance	Net Assessment	Rationale
	Australasian Recycling Label – on-pack labelling scheme that helps consumers understand how to recycle products correctly and assists brand owners to design packaging that is recyclable at end-of-life. Powered by the Packaging Recyclability Evaluation Portal (PREP), an online tool that assesses packaging recyclability in the Australian and New Zealand recovery systems (Organisation 2019).	Australia and New Zealand	 Positive	<ul style="list-style-type: none">  Clarity: Specific instructions  Accessibility: Easy to use  Reliability: Consistent
	Woolworths Recycling Labels – the recycling instruction label used by Woolworths is supported and endorsed by the major industry organisations in South Africa, and is set to become the standard in the country (Woolworths 2018).	South Africa	 Positive	<ul style="list-style-type: none">  Clarity: Specific, detailed guidance  Transparency: Source material specified

Figure 1. Recycling label assessed as positive by the UNEP report⁵.

10. Empowering innovative reusable solutions to reduce online shopping packaging by 2025.

The surge in online shopping has led to tremendous packaging waste. WWF recommends Hong Kong should empower local stakeholders to develop innovative reusable solutions, beginning with domestic deliver. The government should take a highly proactive role to facilitate more innovative ideas to thrive and encourage courier/delivery companies (current or start-up) to innovate solutions to reduce their packaging footprint. For example, WWF suggests:

- Organise roundtables to discuss with local academics, non-governmental organizations, courier services, online shopping sectors (B2B, B2B2C, B2C), innovative start-ups, and other relevant stakeholders.
- Develop guidelines for courier packaging, taking reference from Taiwan Online Shopping Packaging Reduction Guidelines¹².
- Incorporate the packaging issue in sustainable funding and innovation schemes, e.g. Green Tech fund. Explore the potential of a reusable containers system¹³.

¹⁰ Research Office, Legislative Council Secretariat, HKSAR Government. (2016). Regulation of imported food in Hong Kong, retrieved November, 27, 2021, from <https://www.legco.gov.hk/research-publications/english/1516fsc14-regulation-of-imported-food-in-hong-kong-20160226-e.pdf>

¹¹ Hong Kong Legislation. Cap. 132 Public Health and Municipal Services Ordinance

¹² Environment Protection Administration, Taiwan Government. (2021). Online shopping packaging reduction guidelines (網購包裝減量指引). Retrieved on 2021, November 27, from <https://hwms.epa.gov.tw/dispPageBox/onceOff/onceOffDetail.aspx?ddsPageID=EPATWH123>

¹³ Social Enterprise Insights. (2020). Taiwanese teenager launches reusable courier packaging (啟動電商的環保革命！台灣青年推出可重複利用的「循環包裝袋」，盼與 PChome、蝦皮攜手減廢). Retrieved on 2021, November 27, from <https://www.seinsights.asia/article/3290/3268/6939>

- Provide support for pilot programmes for such innovation. The Hongkong Post Services can be the role model in reducing packaging.

Multiple courier services have been working on reusable containers to achieve zero packaging waste¹⁴ and food delivery companies are developing such schemes. Overseas companies have developed business models for reusable packaging^{9,15}. WWF emphasizes that development of alternative single-use materials for packaging is not a desirable endpoint; rather, emerging innovative solutions show that waste-free delivery is feasible and timely.

Importantly, a large proportion of online shopping delivery is sourced from outside the Hong Kong SAR, so that the government should aim to solve the problem at regional (e.g. Greater Bay Area) and international scales.

11. Carton beverages should be redesigned to eliminate the straw attached, but avoid perverse outcomes.

Whilst elimination of plastic straws is important, there is a real risk of driving a switch to undesirable alternatives: plastic caps involve yet more single-use plastic, and paper straws, an emerging alternative, simply transfer the problem (see point 5 above). We note that innovative carton designs that do not require a straw are already available¹⁶. WWF urges more, careful innovation in carton design, with a clear timeline for the business sector to adapt.

The plastic policy must strive to keep plastics within the economy (circularity) and out of the environment, and reduce production and use of virgin plastic. Beverage manufacturers should also consider the overall footprint for production and compatibility with the recycling system.

12. Regulate disposal labels for hygiene products by 2025.

Many personal hygiene products, such as wet wipes, sanity towels and dental floss, are frequently flushed in the toilet. Apart from blocking the sewage, these materials are likely to produce microplastic that harms the environment. Although sewage treatment facilities can filter some of these plastic content, local research has found the effluent from the wastewater treatment plant contain microplastics¹⁷.

The European Union (EU) has labelling requirements for sanity towels, pads, tampons, tampon applicators and wet wipes¹⁸, effective July this year. Such policy is not only environmentally positive, but benefits property management companies by reduce blockage of their sewage systems, and reduces pressure on sewage treatment facilities.

¹⁴ Hong Kong Economic Times. (2019). Online shopping creates tremendous packaging waste, SF Express pilot reusable courier boxes (淘寶網購海量式製造速遞膠袋垃圾 順豐今年第二季試用循環再用速遞盒). Retrieved on 2021, November 27, from <https://topick.hket.com/article/2306128>

¹⁵ DHL. (2015). Fair and responsible logistic. Retrieved on 2021, 27 November from <https://discover.dhl.com/content/dam/dhl/downloads/interim/full/dhl-trend-report-fair-responsible.pdf>

¹⁶ IDAS, Hongik University. (2015). Straw Pak. Retrieve on 2021, 27 November from <https://ifdesign.com/en/winner-ranking/project/straw-pak/163812>

¹⁷ Mak, C. W., Tsang, Y. Y., Leung, M. M.-L., Fang, J. K.-H., & Chan, K. M. (2020). Microplastics from effluents of Sewage Treatment Works and stormwater discharging into the Victoria Harbour, Hong Kong. *Marine Pollution Bulletin*, 157, 111181.

¹⁸ European Commission. (2021). Marking specifications for single-use plastic products. Retrieved November 27, 2021, from https://ec.europa.eu/environment/topics/plastics/single-use-plastics/sups-marking-specifications_en

- This regulation should ban the term “flushable” and any information that encourages flushing behaviour for all products that contain any plastics, including modified plastics.
- A label with disposal guidance must be required for single-use personal hygiene products that contain plastic, including warning users of their potential damage to the environment.
- Public education on these matters should be in place.



Figure 2. Single-use plastic marking in EU¹³.

13. Banning all other single-use plastic for which practical alternatives already exist by 2023.

Examples include festival and celebration products, toiletries distributed by hotels, umbrella bags, plastic-stemmed cotton bud, etc.

Plastic bag levy

14. Raise the plastic bag levy to at least \$2.

The number of disposed plastic bags in Hong Kong has actually been increasing since the full implementation of the Plastic Shopping Bag Charging Scheme (the Scheme) in 2015. According to the Environmental Protection Department (EPD), plastic bags remain the highest proportion of our domestic plastic waste at the landfill, accounting for 40% (501 tonnes) in 2019¹⁹. Although disposal of plastic bags dropped slightly in 2019 (to 4.07 billion), the amount is still higher than recorded in 2015 (3.93 billion)²⁰.

WWF conducted an online survey to understand public habits of using plastic bags and their views on the current Scheme²¹. Under the current 50-cents levy per plastic bag, nearly 50% of the respondents would still accept plastic bags. If the levy were to increase to \$1 per bag, only about 25% of the respondents would take plastic bags. Around 10% of respondents said they would take plastic bags if the levy were to increase to \$2.

- In order to maximize the effectiveness of the plastic bag levy, WWF recommends the levy should at least be raised to a \$2 to induce a stronger change in consumer behaviour.

¹⁹ Environmental Protection Department, HKSAR Government. (2020). Monitoring municipal solid waste – Waste Statistic 2019. Retrieved on 2021, November 27, from <https://www.wastereduction.gov.hk/sites/default/files/msw2019.pdf>

²⁰ Environmental Bureau, HKSAR Government. (2021). Waste Blueprint for Hong Kong 2035. Retrieved on 2021, November 27, from https://www.enb.gov.hk/sites/default/files/pdf/waste_blueprint_2035_eng.pdf

²¹ WWF. (2021). Existing Plastic Bag Levy losing effectiveness, government should review and promote environmentally friendly practices. Retrieved on 2021, November 27, from https://www.wwf.org.hk/en/news/press_release/?24803/

15. Reducing the exemption excluded from the plastic bag levy.

According to WWF survey result¹⁶, over 70% of the respondents considered plastic bags offered by shops unnecessary for food items wrapped in plastic wrap, and nearly 70% also considered those bags unnecessary for food items wrapped in packaging with vent holes. Over half of respondents considered plastic bags unnecessary for drinks in non-airtight disposable cups and non-airtight packaged food items.

- The Government should review current exemptions and excluding the above four cases from exemptions to the Scheme.

16. The regulation should be applied to the use of all single-use shopping bags regardless of material.

With the full implementation of the Scheme in 2015, the type of plastic bag covered in the scheme expanded to “all bags that are made wholly or partly of plastic irrespective of whether there is a carrying device”²². However, as shown in Point 5 above, there is abundant evidence that the single-use bags of any material are likely to increase carbon and environmental footprint, including paper bags. Multiple research has suggested that the reuse of shopping bags plays a significant role in reducing carbon footprint.

- The scope of the charging scheme must be expanded to all types of shopping bags regardless of materials. The existing exemption on alternative materials should be removed and emphasize the promotion of Bring-Your-Own-Bag (BYOB).

17. Evaluate the potential of One-Bag-Two-Use arrangements for Waste Charging Bags.

Many household families currently re-use ‘single-use’ plastic shopping bags as rubbish bags. This practice would be discouraged by the planned Waste Charging scheme, which will be implemented using designated and labelled plastic bags.

Taipei’s One-Bag-Two-Use Scheme has demonstrated a potential solution, in which Waste Charging Bags can be purchased as shopping bags at the cashier²³, effectively ensuring double use of the plastic bag.

However, there is a risk that such a scheme could trigger increased use of shopping bags if people believe they are obliged to use the shopping bag for dumping the trash. Current plastic bag disposal rate is 1.6 bags per person per day (EPD Data), whereas the estimated consumption of Waste Charge bag is one 15L bag per 3 person family per day²⁴, so shopping bag consumption exceeds the waste charge bag consumption by more than 4 times. The excessive Waste Charge Bag consumption could also potentially impact the intention of waste reduction as they have the excessive bag for waste dumping.

²² Environmental Protection Department, HKSAR Government. (2020). Bags subject to charge. Full implementation of the plastic shopping bag charging. Retrieved on 2021, November 27, from https://www.epd.gov.hk/epd/psb_charging/en/psb_charging/bags_subject_to_charge.html

²³ Department of Environmental Protection, Taipei City Government. (2018). One-Bag-Two-Use Scheme (兩袋合一政策). Retrieved on 2021, November 27, from https://www.dep.gov.taipei/News_Content.aspx?n=B18D1A1E2787E330&sms=305AEC29BED80F5&s=E4BA2C37F21D7D99#

²⁴ Environmental Protection Department, HKSAR Government. (2020). Consolidated responses from the Administration to views raised by members of the public and deputations. Retrieved on 2021, November 27, from <https://www.legco.gov.hk/yr20-21/english/bc/bc01/papers/bc0120210625cb1-1112-2-e.pdf>

WWF therefore recommends the government pilot the following plan and document public responses.

- Provide 10L waste charging bags as shopping bag options, at the new levy of \$2²⁵. WWF hopes this arrangement would prevent wastage of the purchased shopping bags, whilst still promoting Bring Your Own Bag, due to the margin on the waste charging bags.

This scheme clearly has both potential opportunities and negative outcomes, so should be implemented cautiously and with careful monitoring and review.

- To prevent illegal distribution by some retailers, the government should revamp the existing accounting for the charged levy with retailers. Taking the opportunity of replacing conventional plastic bags with waste charge bags, the government should require record of the sales of the bag to prevent “free giving”, since such violation will likely cause both plastic bag levy and waste charge system to fail.

With measures and strategies such as the above in place, Hong Kong can provide national and international leadership towards a world where plastic no longer sullies our natural places. It’s a world where our country parks are clean and green, and our oceans team with marine life, not with discarded nets, bottles and shopping bags. WWF-Hong Kong acknowledges the valuable role of the Council for Sustainable Development in leading public engagement on the control of single-use plastics, and will provide strong support for urgent and robust government policy.

²⁵ At \$2 per bag levy, the 10 L bags cost \$1.1 10L bag providing a margin of \$0.9.