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Implementation Guides January 2022

How to reduce single-use plastics in the food sector

[Spotlight On: Sustainable Consumption](#)[Waste](#)

The growth of the takeaway and delivery economy for food and other goods has led to immense amounts of single-use packaging, cups, food containers and other items being disposed of in cities. The COVID-19 pandemic has accelerated the trend. Takeaway packaging now makes up a significant portion of municipal waste in many cities; in Berlin, for example, it accounts for 40% of waste from public spaces.¹ Most of these items are not recyclable or compostable – rather, they take up space in local landfill, are costly for cities to manage and damage natural environments.

The good news is that reusable options are already well developed and widely available in the food sector, offering cities a starting point for tackling plastic demand and single-use waste. The transition from a wasteful linear model to reusable foodware needs new approaches to washing, logistics, charging and ownership of reusable items. It requires cities to work with local businesses and to influence consumption choices. Supporting this transition is also an opportunity for cities to learn about and begin to develop systemic solutions for reduced and reusable packing across *all* sectors. Here, we explain actions cities can take.

The problem with plastic

The lifecycle of plastic generates significant greenhouse gases, which are imported into cities through urban consumption. Around 36% of all plastics produced globally are single-use and most – 79% of all plastic ever produced by 2015 – ends up in landfill or polluting the natural environment.^{2,3} Plastics are commonly projected to be the biggest source – or even the only real source – of new demand for oil in the coming decades, and the oil industry is intending to invest in and push more plastic.⁴ If plastic demand is allowed to grow as the industry hopes, it would use an estimated 19% of the *entire remaining global carbon budget*.⁵



The most impactful way to reduce emissions from plastics is to develop an environment that ~~reduces its use and replaces single-use with reusable packaging where packaging is needed.~~⁶ To minimise its carbon footprint, packaging should be used as many times as possible.

Understand the city's current use of single-use plastic foodware

Ideally, begin by undertaking a waste characterisation study to build an accurate baseline of the volume of waste generated by single-use items and the commonly used disposable products. This is the same type of study recommended for shaping effective recycling and food-waste strategies. The Climate and Clean Air Coalition's webinar explains best practices for waste characterisation. New York City's study is a good example. **However, a more basic assessment and/or consultation will be sufficient** to begin action on single-use plastics.

Building on the assessment of the city's volume and types of single-use items, determine:

- **The single-use plastic items that have readily available alternatives.** UN Environment's *Single-use plastic take-away food packaging and its alternatives* makes recommendations on different types of plastic, non-plastic and reusable packaging based on lifecycle assessment studies. Reusables should be prioritised above non-plastic single-use items that won't reduce the city's waste volumes and may cause new problems for the waste management system (for example, 'compostable' single-use items may not decompose in your local composting system). Depending on the item and the context, reusable alternatives may be provided by the business or the customer.
- **The ways in which single-use items are used in the city and the reasons why**, which will help to identify the opportunities and challenges associated with shifting away from the use of these items. Smaller restaurants often have limited dishwashing capacity, for example, or certain items may be used in religious or cultural contexts.
- **Public appetite for change.** The impact of plastics on the environment is now a well-known concern in most parts of the world and public polls on city action to curb it can be expected to receive a strong 'yes'. Consultations with the public and businesses are also important in developing the best local solutions.
- **The single-use items that can be recycled through your local system** and whether there is a market for the recycled material. Consider adding these items to relevant local recycling regulation. *How cities can boost recycling rates* gives advice on managing these items through the recycling system.

Also consider conducting or commissioning an assessment of the cost of single-use items to the city, as Vancouver did, to help build the case for action.



Vancouver's single-use item reduction strategy was created through extensive consultation with residents and businesses

Vancouver City Council's approval of the Single-Use Item Reduction Strategy in 2018 was an early action to deliver the city's Zero Waste 2040 plan. The city's research found that single-use items cost Vancouver taxpayers about CAD 2.5 million per year to collect from public waste bins and to clean up as litter in parks, streets, and green spaces. Consultation found that 86% of residents considered reducing single-use items to be important. Informed by a waste composition study, the single-use strategy sets out solutions targeting plastic and paper shopping bags, polystyrene foam cups, takeaway containers, disposable cups, straws and utensils.

Consider setting targets for single-use plastics

Targets for single-use plastics are recommended in order to fuel publicity and transparency and to institutionalise the city's goal of reducing their use. Navarra, Spain, for instance, requires hotels, retail and catering businesses to serve 80% of beer, 70% of soft drinks and 40% of water in reusable containers by 2028. At a national level, countries including Spain, Sweden and Greece have set targets to reduce single-use cups and food containers – Spain is aiming for a 50% reduction in these items by 2026 and 70% by 2030 (in terms of weight, compared with 2022 data).⁷ City targets could take the form of a percentage of single-use coffee cups per tonne of waste from public space, for instance, or could be linked to supportive measures, such as a minimum number of restaurants reached by campaigns. They should be integrated into wider zero-waste targets.

Robust targets and the monitoring of single-use plastics will only be feasible if a waste characterisation study has been conducted. **Targets are not critical** and an absence of the data required to set them and track progress should not prevent a city from taking action.⁸ The Canadian cities of Chilliwick and Vancouver, for example, are implementing single-use item strategies without setting specific targets for single-use items.

Enact legislation and regulation to limit the availability and use of single-use products

If possible, restrict single-use items through a ban to prevent single-use items from being sold or distributed. This is the most impactful approach, and many cities have already done so. Give notice and/or a transition period – usually around a year – to allow people and businesses to adapt. After banning plastic bags in March 2021, Quezon City allowed the use of brown paper bags for a year before banning the distribution of single-use bags completely.⁹

A ban typically means:



- **Banning priority single-use items outright.** Single-use items prioritised in a ban should include those that are not necessary for the consumption of food or drink, such as straws, and those where a reusable (or at least recyclable) alternative is readily available. Buenos Aires, for example, has banned the distribution of plastic bags by supermarkets, hypermarkets and self-service commercial centres.¹⁰ In Vancouver, businesses and charities are prohibited from serving prepared food and drink in foam cups and foam takeout containers. After banning plastic bags and foam containers, San Francisco outlawed the sale of small plastic water bottles of less than 21 ounces on City-owned property. To build popular support for a ban, cities can run trials and campaigns, as Seattle did in September 2017, with ‘Strawless in Seattle’.
- **Banning single-use items in specific settings or contexts.** Dine-in restaurants, where a dishwasher is usually available, can be a good place to start a ban on disposable foodware –restricting disposables to takeaway and delivery. This can be the first step in a transition to a complete ban. Quezon City has banned restaurants from using Styrofoam or single-use cutlery, cups and plates for dine-in customers (and banned hotels from distributing soap, shampoo and other items in sachets and single-use containers) and imposed a total ban on these items in government institutions. Seoul has banned single-use cups in dine-in settings and Berlin has outlawed all beverages in disposable packaging, disposable tableware and cutlery, in canteens and at major events. Cities in California such as Arcata, Berkeley, Culver City, Palm Springs, San Anselmo and Fairfax have restricted single-use plastic to offsite dining.

Test your city’s legal powers

Bans may face industry opposition and legal challenges. Some cities are legally prohibited from introducing bans – some state governments in the United States, for example, have introduced pre-emptions that prevent cities from banning plastic items.¹¹ To introduce a ban, ensure that policy is robust to legal challenges, especially if your city’s legal powers are unclear. How cities can use the law to advance climate action provides tips.

A legal challenge can be beneficial – it provides valuable publicity, legal clarity and precedent that can support bans elsewhere in your jurisdiction. São Paulo’s 2011 law prohibiting shops from distributing free plastic bags was suspended due to legal claims until 2015, when it was endorsed by the Brazilian justice system and went on to reduce consumption of disposable bags by as much as 70% in its first year alone.¹² A bylaw prohibiting single-use plastic bags introduced in the Canadian city of Victoria was declared invalid following a legal challenge, but later reinstated in an amended form; C40 Cities’ Legal interventions report explains more (page 45).

If a city-led ban is not possible, or to complement a ban and/or build momentum on route to a ban, the

following approaches have also been proven to help phase out single-use plastics:



- **Reusable item quotas or requirements.** Minimum requirements or quotas offer greater flexibility that can allow single-use-item suppliers to test and develop new solutions, develop a market for reusable items and encourage consumers to change habits. San Francisco requires at least 10% of cups at events of over 100 people to be reusable, for example, and provides mandatory zero-waste training for event organisers. Quotas can be gradually raised and should be accompanied by a well-publicised final goal (such as a ban).
- **‘On-request’ laws.** This opt-in model means that customers must ask for the single-use item before it is provided, or that the restaurant must ask whether the item is wanted before providing it. It eliminates waste by customers who have access to reusable items. It also allows flexibility in considering the needs of customers who require a straw for medical reasons, and can be incorporated into bans as an exemption. For example, Los Angeles has a request-only policy, making straws and takeout accessories available only when a customer asks. Milan has partnered with food-delivery services to include information on the recyclability of food packaging in deliveries and to change order settings to an opt-in scheme for utensils.
- **Container deposit schemes.** A small deposit is paid for a container and refunded when it is brought back. These schemes are well developed for bottles in some places, mostly at regional or national level. City-led deposit schemes are now being tested for takeaway food and drink, with cups washed ready for reuse either on- or off-site. Freiburg, for example, charges €1 for a reusable coffee cup which can be returned to any participating café or shop, which washes it ready for the next customer. Within two years over 60% of Freiburg’s cafés had joined the initiative.¹³ Off-site, shared systems may offer a solution for washing, which is often a hurdle for small outlets that lack the space for washing infrastructure. Berlin is piloting a system, run by a private company through public tender, whereby reusable cups offered by small venues lacking washing facilities are picked up by cargo bike, washed and returned clean.
- **Voluntary pledges.** These offer a way to engage food businesses on reducing single-use plastics and publicly celebrate their leadership. Seek to launch the pledge with a group of high-profile signatories already signed up. The Sydney Single-use Pledge is one example; industry leaders from the hospitality, events and property sectors have committed to implementing at least four actions that reduce reliance on single-use plastic items. The city government itself has taken a platinum pledge, committing to the phase-out of seven single-use items in its venues and events, and has developed guidelines to help signatories find sustainable alternatives to single-use items.

Establish and publicise clear sanitary protocols for reusable foodware



Clear rules are critical where customers bring their own container and for container deposit schemes, both for actual sanitary safety as well as the *public perception* of sanitary safety. This is especially true while we live with COVID-19. The virus is primarily spread by large, airborne droplets and aerosols and the risk of infection from contact with the virus on surfaces is extremely low. If lingering concern about contamination is undermining efforts to reduce single-use items in your city, creating and publicising clear sanitary protocols may help. Vancouver's Contactless Cup Procedure was developed with the local health authority; a poster explaining it can be downloaded for display and is also included in the city's single-use-item bylaw toolkit. The Philadelphia Health Department has also issued guidance explaining how restaurants and food businesses can safely incorporate reusable to-go containers into their takeout service.

Limit single-use foodware waste in municipal operations

By leading by example, the city can support innovation and the development of new business models, encourage suppliers to develop high-quality schemes and solutions for reusable containers and inspire others to take similar action.

Ideally, ban single-use items in municipal facilities and municipal procurement. This is where the city has most power to act and can set up the infrastructure for a shift to reusables. Auckland has zero-waste requirements for all Auckland Council events and offers a 'library' of reusable foodware containers for staff. In London, City Hall has phased out all single-use plastic items from its catering outlet and staff welfare facilities. Sydney has developed guidelines for single-use items that apply to the delivery of services, events, festivals, markets and programmes delivered by the City of Sydney, as well as those delivered by other entities that hire venues or seek a permit for outdoor venues. Ensure that necessary exemptions are catered for. For example, New York City's executive order, which requires city agencies to end the purchasing of single-use plastic foodware and replace it with compostable or recyclable alternatives, recognises the need for plastic items to be available upon request to those who need them, such as people with disabilities.

Make reusables the cheaper and easier option for consumers and businesses

The main approaches to achieve this are:

- **Implement a tax on or fee for single-use items.** These charge customers a small cost if they opt to use a disposable item. The costs encourage people to bring their own or participate in reusable schemes, and disrupt the 'norm' of single-use item provision. Berkeley and Vancouver have placed a USD/CAD 0.25 fee on single-use coffee cups, effective January 2020 and January 2022 respectively. In January 2022 Tübingen, Germany introduced a EUR tax on single-use cups and food packaging like pizza boxes, and EUR 0.25 per utensil. Ensure that any exemptions, such as for hospitals,

community care facilities and charitable services, are identified and clear. Requiring  English ~~fee, which is~~ kept by the business rather than paid to the city, can be more politically popular than a tax, but should ideally be combined with other schemes to encourage businesses to reduce their use of disposables. Under Vancouver's single-use item bylaw, for example, businesses will be required to track and report the number of single-use cups distributed from 2023 unless they participate in a reusable cup-share programme.

- **Provide free public access to drinking water.** As well as reducing the use of single-use plastic bottles, free water provision can have health benefits by reducing the consumption of unhealthy soft drinks. Depending on the infrastructure available, this can mean bringing old public drinking infrastructure back into use, installing new infrastructure, or encouraging food businesses to allow refills. Milan, for example, produced a map of drinking fountains across the city as part of a campaign to re-launch the fountains as a public water supply and has installed water dispensers in municipal buildings.¹⁴ London has installed a network of more than 100 drinking-water fountains in busy areas of London, as well as encouraging restaurants, cafes and businesses to offer free drinking water refills through the Refill London scheme.
- **Tax rebates, grants and other support for businesses.** Consider providing direct funding for new or scaled-up waste-reduction initiatives by companies, as well as civil society, schools and other organisations. Auckland, for example, does this through its Waste Minimisation and Innovation Fund. Cities can also provide restaurants with starter kits of reusable foodware to lower the initial costs, as well as toolkits and consultancy to help them prepare their operations. Consider partnering with local non-governmental organisations to deliver this support.

Also raise awareness of the potential cost savings for food-service businesses. Research on small businesses in the United States, for example, has found that they save between USD 3,000 and USD 22,000 a year, on average, by switching to reusables, as well as building brand loyalty. Read more here.

As well as supporting plastic-free food retail businesses, consider opening municipally run shops. Quezon City's Bring Your Own Bottles project, for example, has opened a refill store for basic condiments, such as vinegar, soy sauce and cooking oil, sold at a low price.

Run city-wide and targeted campaigns to educate consumers about the impact of their choices, and the benefits of cutting waste

City-wide campaigns, run alongside those tailored to specific communities, will encourage widespread

engagement in the conversation. Raise awareness of the impact of single-use plastics, as well as the reusable alternatives and schemes available.



Good examples including Toronto's 2020 Waste Reduction Week, which included a series of events and workshops. The Toronto public awareness campaign runs alongside its Community Reduce Reuse programmes and share/reuse hubs. The Bring Your Own Singapore campaign offers incentives to customers to bring their own reusable bags, bottles or containers. It started in 2017 with the participation of 430 retail outlets, which together reduced over 2.5 million pieces of disposable plastic in the first four months alone, and now has over 1,000 supporting outlets. Tokyo has organised webinars on the reuse of foodware for food-service providers as part of a support package for businesses. Phoenix's promotion of zero waste events is supported by outreach aimed at businesses and other event organisers to raise awareness of the value of durable versus single-use items.

The short advert below was released alongside Tübingen's packaging tax, aiming to demonstrate the absurdity of our single-use foodware culture.

Jedes Geschirr verdient eine zweite Chance



Advocate for national governments to reduce foodware waste

The ability of cities to legislate and directly restrict single-use items through bans or similar measures varies substantially from country to country. If your city is not able to implement these options – and even if you can – consider appealing to the government body or agency responsible for such action, be it subnational, national or supranational. Action by higher levels of government will support the transition away from disposables in any city; they can establish standards or recommendations for cups and deposit amounts, systems and logistics beyond city scale and can increase the user friendliness and uptake of these

options. Such action, for example, allows a cup acquired at a train station in one city to be dropped off in another.



English

Cities are well placed to advocate for waste-reduction measures thanks to their responsibility for managing waste and can emphasise the opportunity for cleaner urban environments, innovation and job creation, as well as the contribution being made to GHG emission reductions. Seek involvement in any relevant consultations and consider working with other cities, networks and campaigns to bring these requests to government.

UN Environment's *Legal Limits on Single-Use Plastics and Microplastics* provides a comprehensive (2018) global review of national laws and regulations limiting the manufacture, import, sale, use and disposal of single-use plastics.

Countries that have already introduced bans on priority items include:

- Kenya, which passed a strict ban on single-use plastic bags in 2017.
- New Zealand, which is phasing out single-use plastic packaging, tableware and other single-use products by 2023, encouraged by advocacy from Auckland.
- Colombia, which created legislation including extended producer responsibility (EPR) for recyclable packaging, and bans and taxes on certain types of plastic bag, with encouragement from cities including Medellín.¹⁵
- South Korea, which banned single-use cups in dine-in restaurants and cafes.
- Germany, which banned all beverages in disposable packaging, disposable tableware and cutlery.



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