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Policy Briefs February 2023

6 city actions to improve waste management and reduce emissions

[Climate Action Planning](#)[Waste](#)Originally Published: **September 2019**Author(s): **C40 Cities Climate Leadership Group, C40 Knowledge Hub**

Improving waste management delivers swift and locally-felt rewards for *all* cities – from those setting up waste management processes for the first time, to cities with advanced waste management processes that are shifting to a zero-waste approach. This article sets out the six most impactful actions a city can take to improve waste management. Click on the links to find out how to implement these measures.

1. Establish city-wide universal collection and safe disposal

This is the foundation for a sustainable waste management system.

- Develop collection infrastructure, transfer systems and operational arrangements. Consider using small vehicles based on chassis that are widely available locally, avoid duplicated collection routes and minimise the distance to disposal.
- Work in partnership with the informal waste sector (if it exists) to develop a strategy to formalise it and to improve working conditions for waste pickers.
- Establish requirements for source segregation of waste by large waste producers, such as markets or industrial sites.
- Ensure, at a minimum, disposal to a sanitary landfill with gas flaring. Ideally, utilise landfill gas to produce energy, and reduce and divert waste through the approaches below.



2. Don't invest in solid waste incineration

- Incineration is not the 'quick-fix', low-carbon, energy-producing waste solution it is often presented as. It is expensive, inefficient compared to clean energy sources, requires strong environmental controls, releases greenhouse gases, and locks cities into producing high volumes of waste to 'feed' the incinerator – disincentivising recycling and other waste reduction and diversion efforts.

3. Focus on reducing and treating food waste

- Determine the amount of food waste generated in the city, its sources and characteristics.
- Run pilots to develop a strategy for segregated food and organic waste collection. Initially, target the largest producers of food waste, and build towards universal segregated collection. Use incentives, such as more frequent food waste collection, to encourage participation.
- Use composting and/or anaerobic digestion to produce compost, bio-gas, heat, bio-fertilisers and other products. Resource-constrained cities should focus on composting as it is simpler and cheaper.
- Read more about managing food waste and organics in Global South cities, and in cities with relatively advanced waste management systems.

4. Boost recycling rates

- Set recycling priorities by collecting and analysing waste data, or seek data from similar-sized cities.
- Make recycling services easy to use by: implementing door-to-door collection and/or drop-off schemes; using convenient, single-stream bins; and maximising the number of accepted materials.
- Incentivise and support recycling with pay-as-you-throw policies, deposit schemes, and local bans on non-recyclable items.
- Develop clear and targeted communications campaigns to ensure easy access to information on what can be recycled. Use positive and engaging messages that will resonate with citizens, such as civic pride, cost savings, sustainability and job creation.
- Secure the buy-in of collection workers and waste management operators by making it more convenient for them, and with incentives such as revenue-sharing mechanisms.
- Seek opportunities to create material 'loops' that funnel recovered materials back into local enterprise.

Cities with established and high-performing waste management systems should also:

5. Reduce waste generation and encourage a circular economy



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- Establish pay-as-you-throw waste fees to encourage users to generate less waste.
- Make source segregation mandatory. Establish incentives for participation to minimise residual waste. For example, charge less to collect organics and recyclables than residual waste, and provide smaller bins for residual waste.
- Develop regulations to phase out single-use plastics and other non-recyclable materials in the city. Support any national or regional government policies on extended producer responsibility regulations and deposit schemes, to encourage producers to take back materials and encourage the manufacturing of more recyclable products.
- Encourage reuse, reduce consumption and minimise waste generation by supporting reuse and repair shops, product renting and sharing (also known as goods-as-service business models) and initiatives such as exchange fairs.
- Introduce policies to repurpose buildings for new uses and to salvage materials for reuse through deconstruction. This is critical to reduce the quantities of materials that enter the waste stream when buildings are demolished.

6. Set a zero-waste goal to reap social, economic and environmental rewards

- Set progressive goals to reach at least 70% diversion from disposal by 2030 and to eliminate waste disposal by 2050. Be sure to measure progress.
- Include ambitious food and organic waste reduction goals within the wider zero-waste goal.

There is overlap between these measures. For example, source segregation is vital for treating organic waste, for minimising contamination of recyclables, as well as for reducing residual waste generation.

Use the [Waste data explorer](#) to find out how much solid waste is generated in your city, its composition, the disposal and treatment approaches used, and the diversion rate from landfill and incineration; visit the [Waste policy explorer](#) to find details of programmes and policies being implemented by cities around the world.



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