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BEYOND RECYCLING:

Policy to Achieve Circular Waste Management

Waste collection and recycling services are some of the most essential functions of government to keep cities clean, preserve the environment and promote public health.

For more than 50 years, local governments have championed efforts to improve the environmental sustainability of waste management by establishing curbside recycling programs, investing in sorting facilities, capturing methane and other greenhouse gases from landfills and much more. But today the systems have grown and changed in ways that are not environmentally or economically sustainable. More waste is generated by Americans than ever before, and several crises have recently converged to threaten municipal budgets and expose deep, systemic problems throughout the waste management industry.

This policy brief describes the major systematic challenges and policy tools that play a part in a bold and sustainable vision for more circular waste management.

Major Challenges

Market characterized by complexity & fragmentation

Recycling in the U.S. is conducted by an incredibly complex network of local governments and private sector participants who collect and process materials. Residential, multi-family, commercial and institutional collection for schools, universities or hospitals are frequently different services, and each of these services are frequently different between cities – even within the same metropolitan region.

- It is estimated that only 53 percent of households have universal access to residential curbside recycling, and another 6 percent opt into subscription-based services.[1]

Growing Plastic Crisis

Plastic pollution has rapidly become a global crisis to both human and ecological health around the world.

- The U.S. generates more plastic waste than any other country and only 8 percent of it is recycled.[2]
- Toxic chemicals from plastic threaten human health through inhalation, ingestion and other exposure at every stage of its lifecycle.[3]

National Sword

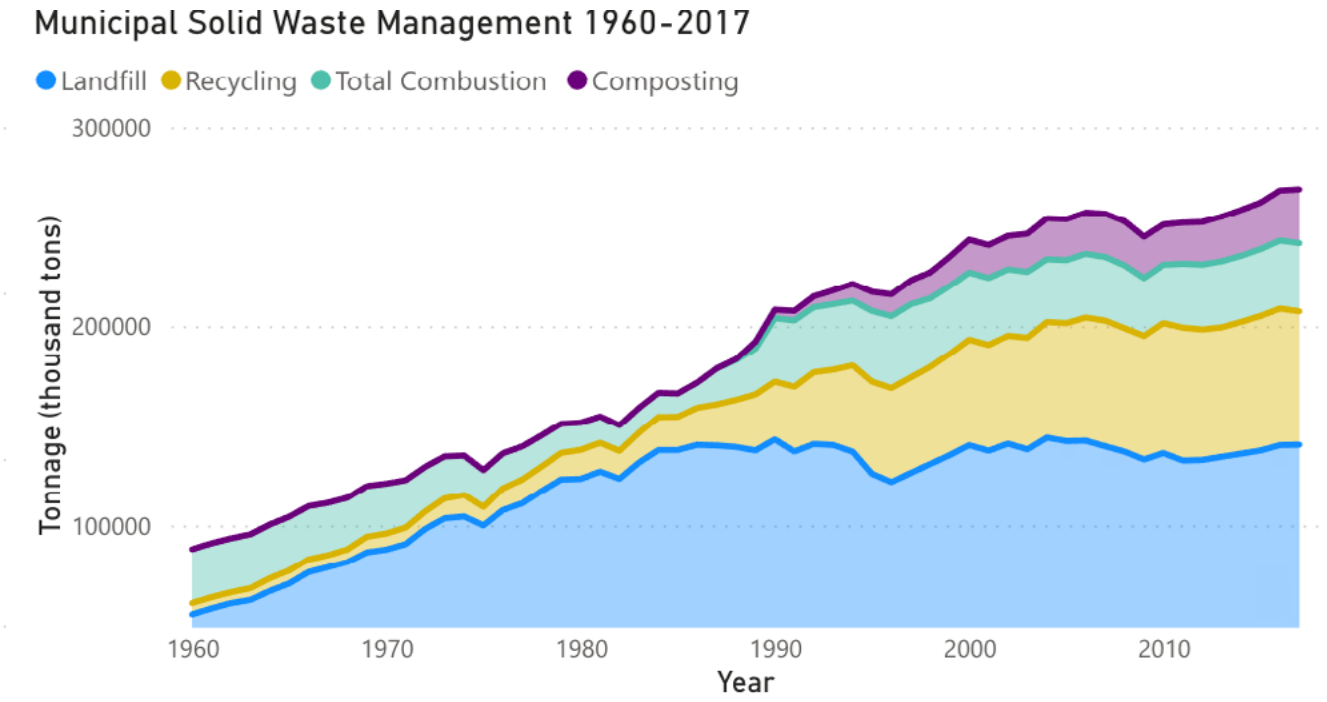
For decades, recyclables collected around the world were purchased by China where manufacturers hoped to reuse whatever they could salvage, with little regard for quality. But in 2017, the Chinese government passed a series of policies commonly and collectively referred to as "National Sword" that set strict limits on contamination, effectively ended importation of many commodities and crashed global markets.

- The combined value of curbside residential recycling material declined by 41 percent between 2017 and 2020, primarily due to drop in fiber prices.[4]

COVID-19 Pandemic

COVID-19 came as a sudden shock that has been devastating to recycling by threatening the health of the workforce, disrupting operations and weakening the underlying economic conditions.

- Business dwindled "by more than 20 percent in Europe, by 50 percent in parts of Asia and as much as 60 percent for some firms in the United States."[5]



Waste management strategies have evolved over time. Total tons sent to landfill has stayed relatively flat since 1990 as recycling grew dramatically. In recent years much more material has been incinerated or composted.

Principles for Reform

Systemic challenges require systemic reform. Efforts to educate residents and reduce contamination may be part of the solution, but these are inadequate to meet the current challenge and miss entirely the structural problems at play. Cities need the support of haulers, materials processors and private consumer product manufacturers to change policy at all levels of government and put America on a serious path toward zero-waste. The recommendations of this policy brief are guided by two underlying principles

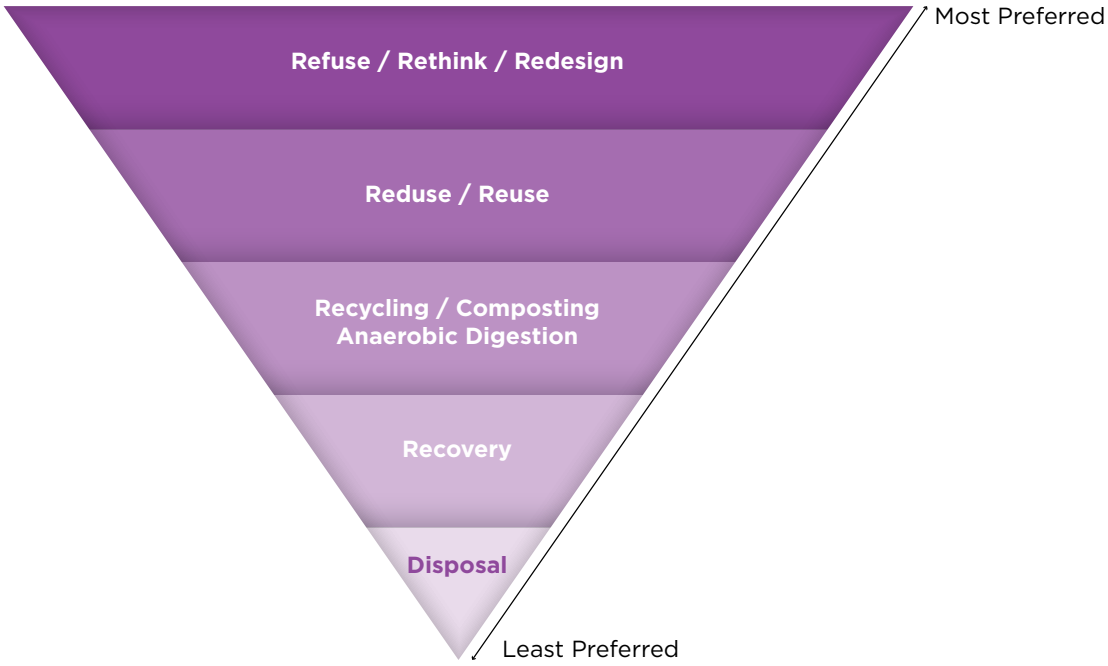
Embrace a circular waste management model

A circular economy is a new system where no resources go to a landfill, rather that everything is designed for repair and reuse. Right now, most systems prioritize treatment and disposal over reduction, reuse or redesign; however, cities must use resources like the butterfly model and a consumption-based emissions inventory as guidance on how to actively move towards circularity.

Maintain Local Authority

City leadership and authority are essential to collection of material for recycling and solid waste. Local governments are closest to their residents, most responsive to their concerns and best positioned to deal with unique conditions.

WASTE MANAGEMENT HIERARCHY



How Cities Can Lead

Cities should develop and implement comprehensive plans for circular waste management

Cities have a responsibility to develop waste management systems that are continuously improving to become more sustainable and equitable. This includes actively pursuing strategies for data collection, waste reduction, recycling and eventually working toward circular systems where nothing going to landfill. Although state and federal support is necessary to reach long-term sustainability objectives, most cities can achieve much greater diversion rates for recyclables and organics than they currently do.

Cities should give equal priority to collection services for trash, recycling, and organics

Moving toward circularity requires universal access to trash, recycling and compost collection with equal levels and frequency of service. Cities should ensure that what happens with commercial material is at least as robust as what happens to residential material.

Cities should spur market demand by adopting standards for Environmentally Preferential Procurement (EPP)

Cities are often among the largest employers in their regions and purchase billions of dollars in products and services. With environmentally preferential procurement (EPP), they can actively support higher material uses, generate local demand for recycled products and serve as an example to other major institutions such as schools, universities, hospitals or private industry.

Cities should support or incentivize local business to adopt EPP

Economic development for sustainable waste management can take two different forms: cities can incentivize or incubate new businesses involved in recycling or remanufacturing. They can also reward or promote other businesses for their own zero waste or closed loop practices.

Cities should set clear standards for wellbeing and equity in sanitation services

Trash and recycling collection is one of the most dangerous jobs in the U.S., with the fifth-highest rate of fatal injuries. Clear safety standards and better pay can lead to better training, improved efficiency and higher productivity and yield. To protect all employees, cities must not only establish standards for themselves, but for the contractors that they work with.

The Support Cities Need

None of the above recommendations are possible without action and support from states, federal government, producers, haulers and processors who participate in waste management.

State or federal governments should establish Extended Producer Responsibility (EPR).

Extended producer responsibility covers a range of policy options that would make manufacturers accountable for effective recycling of products and minimize environmental impacts throughout their lifecycle. EPR systems are useful for both packaging and paper products, as well as material with specific processing needs such as batteries, electronics, mattresses and more. They can also take several forms, including:

- **"Polluter Pays"**
  Under this principle, state or federal government legislation requires companies to be responsible for effective recycling of the waste they produce. Production fees or surcharges placed on specific items such as packaging are used to finance infrastructure improvements or support operations and it is critically important that government agencies perform an oversight and accountability role.

- **Deposit Return System**
  Deposit Return Systems (DRS) are a proven tool to recover materials for reuse and high-quality recycling. These systems require consumers to pay a small deposit when they purchase a beverage can or bottle, which they get back when they return the container to a redemption location. While DRS is a form of EPR, a general EPR law does not replace DRS legislation

State or federal governments should adopt minimum recycled content mandates that are consistent, aggressive and achievable.

Recycled content standards require that producers use a certain level of recycled content in their products. These legal requirements can balance supply and demand to expand markets for recycled content.

Oversight agencies should establish an effective data and metrics system for quality control and material traceability.

Good data offers a pathway to a closed loop system. A state or federal oversight agency like the Environmental Protection Agency should expand data collection and support local governments, haulers and processors to report consistent data.

State or federal governments should collaborate to create standardized guidelines for recyclability and labeling.

Simpler and more consistent waste management standards can reduce resident confusion and incentivize industry to make investments in circularity. The entire value chain needs to be in dialogue from the original packaging designers and manufacturers (upstream) to the recyclers (downstream).

Endnotes

[1] Sustainable Packaging Coalition. "2015-16 Centralized Study on Availability of Recycling" https://sustainablepackaging.org/findings-released-spc-centralized-study-availability-recycling/

[2] Law, Kara Lavendar et al. "The United States' contribution of plastic waste to land and ocean." Science Advances. https://www.science.org/doi/epdf/10.1126/sciadv.abd0288

[3] Center for International Environmental Law. "Plastic and Health: The Hidden Costs of a Plastic Planet."

[4] The Recycling Partnership. "State of Curbside Recycling Report."

[5] Brock, Joe. "Special Report: Plastic Pandemic – COVID-19 trashed the recycling dream." Reuters