

What would it take for urban dwellers to sort food waste?

To develop successful waste separation schemes, cities should take the time to understand the determinants and barriers in the specific area they are targeting.

When it comes to sorting food waste, convenience is the key word.

Once the physical infrastructure is in place, cities can activate a variety of levers at the individual or community level.



As urban dwellers consume food, they also produce waste. Re-using, recycling and composting such waste coming from the food itself (leftovers, peelings...) or its packaging is central to reducing the environmental footprint of urban food systems. Waste separation is therefore at the core of adequate waste management. Yet, it is not fully implemented in many countries. What would it take for households to pre-sort their waste so it can be properly managed?

A literature review published in the *Journal of Cleaner Production* delves into the many social factors that contribute to successful waste management in urban areas. It provides a useful guide for any city willing to improve its food waste management policies.

First, know your context

One would expect scientific literature to give a clear picture of which social, psychological, economic and political levers should be activated to increase waste separation. Interestingly, though, what it first shows is that **the efficiency of levers will depend on the context and on the actual people your policy is targeted to**. It pays off to spend money on studying your context, because scientific theory can give you insights, but these need to be tailored to real-life situations. In particular:

- **Not all people have the same attitudes to recycling nor the same abilities to do so.** Recycling is a habit that comes with time, as people move from not being aware of the need to recycle (or not caring), to being aware but feeling incompetent about it, to being comfortable with it, until eventually they do it without even thinking about it. In a same city, you can have people that are at different stages of this cycle. "Sustained recyclers" can live next

Albane GASPARD
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Urban Food Futures would like to thank Doris Knickmeyer for her inputs and comments

Source:

[Knickmeyer, D. \(2020\). Social factors influencing household waste separation : a literature review on good practices to improve the recycling performance of urban areas, Journal of Cleaner Production, Vol. 245](#)

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door to “non-recyclers”, “stopped-recyclers” or “new recyclers”. Furthermore, not all socio-economic groups have the same ability to recycle: some may have more pressing needs or less time than others. These different households will need to be addressed differently by policy. Existing typologies developed by researchers are a useful tool to incorporate people’s diversity into policy and make sure policy caters for each type.

- **Each context opens specific opportunities and raises specific challenges to waste separation.** For instance, cities add an extra burden. Indeed, urban dwellers tend to have busier lifestyles and move more often from one place to another to study and / or work. How can you ensure that people will take the time to check the waste policy if they are in the city for 6 months only? Compact cities also raise issues as they typically offer less space for temporary waste storage (in kitchens, for example).

The first major take-away from this literature review is then: cities should take time to understand the determinants and barriers to waste separation in the specific area they are targeting. As Doris Knickmeyer, who carried out the review at the Institute of Environmental Science and Technology (ICTA) in Barcelona (Spain), puts it: **“preliminary research is the real best practice”**. In doing so, cities might need to carry out specific research, as official statistics may be out-of-date.

Second, make sure the recycling infrastructure is in place

The second take-away from the review is to make sure that the recycling infrastructure is in place and tailored to the needs of the specific people who live there. Here, **convenience is the key word**. Indeed, research shows that any strategy that lowers the effort needed to recycle is welcome. Bins should be available and easy to access. They should be (and kept) clean and well labelled. In high-density cities, specific infrastructure can be developed. Another example ? In Sweden, for instance, households were given food waste hangers that fit into small kitchens. Another area of work is working with property owners and architects and issuing clear urban planning guidelines to introduce enough space for waste management in new housing schemes. Infrastructure design plays a central role. What surprised Doris Knickmeyer when reviewing the literature is **how much little design details such as the shape of the hole or the colour of the bin actually matter**.

Here again, the actual infrastructure you end up developing will depend on the results of your preliminary research. For instance, both bring-in sites and door-to-door collection are relevant options that proved successful in different cities, but the one you will chose will depend on your public.

Third, activate social levers

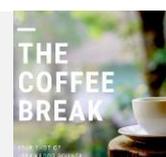
Infrastructure does not make it all, though. In Hong Kong, for example, local government had made the provision of storage and material recovery rooms mandatory on every floor, but failed to develop other behaviour change policies to go along with it.

So which are the social levers that can be activated jointly with infrastructure provision? There are many to choose from, and, here again, they will depend on the specific group and area that you target.

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- **First, you can try and change individual attitudes towards recycling, through messages that emphasize how it fits with people's pre-existing attitudes...** People holding pro-environmental attitudes have proven to be more inclined to recycle, so highlighting the environmental benefits of recycling could be effective for them. For others, moral norms (recycling as a civic duty) will work.
- **You may also need to argument against pre-conceptions people have that negatively affect their attitude to recycling.** For instance, people may be put off by the idea that organic waste smells and is not hygienic, or by the fact that previously segregated recyclables are collected from the same waste collection vehicle. Demonstrating that food waste does not attract flies if well managed, or showing people what actually happens to their waste could then be an option. [What about opening a bar in a waste treatment plant, as experienced in Japan?](#) Or just organising tours of waste management facilities?
- **You will have to address specific and very concrete questions people have.** As a rule of thumb, try to be as specific as possible in your communication. New comers may need special care, especially if they come from a place with different recycling guidelines. For instance, it would be beneficial if the landlords would provide new tenants, also in short-term rentals and holiday homes, with clear information on the local recycling scheme when they move in.

There are also a whole set of levers that you can activate at the community level. Here, the idea is to act on social norms, to make recycling the "new normal" in a given community. Literature shows that social pressure can play an important role at the early stage of a recycling scheme. This can be done by making recycling sites visible or by communicating about recycling rates in the neighbourhood.

In a nutshell, provided you know who you are working with, their attitude and their constraints, there will always be a social lever you can act upon to ensure that households take part in a more circular food system!

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