Dealing with the waste we all generate is a growing global challenge. Waste management problems are conventionally described and measured in terms of material flows and environmental impacts, yet this is a human problem with major social, health, and economic impacts, felt most acutely by some of the world’s poorest people. Informal workers make a major contribution to citywide recovery and recycling, but remain unrecognized and undervalued. We urgently need to put people back at the centre of our narrative and actions. In Managing Our Waste 2021 we do just that. Through people-centred analysis we reveal huge inequalities in access to services across four case study cities, and shine a spotlight on the wide range of stakeholders already making efforts to clean up their city and to earn a living from waste. Our recommendations focus on four people-centred solutions.

**Monitor waste management as a people-centred service.** Adopt a ladder of access to waste services and disaggregate by wealth and gender to highlight where action is needed. Targets should be set based on this to improve the proportion of people with access to at least basic waste management services.

**Tackle the waste that affects people the most.** Encourage even more household source separation, supported by new options for waste streams that are the most polluting or hazardous for people, in particular women and children.

**Improve the lives and working conditions of informal waste workers.** As a first step, recognize and value the contribution of informal waste collection, recycling, and trading businesses; and address discrimination, abuse, and gender inequalities. Informal businesses need support to capture more value from waste. This requires new public–private partnerships and systems to create space for the expertise and dynamism in this sector.

**Integrate the voice of those most affected.** At all levels, waste policies need to focus not only on environmental benefits but also on improving the lives of the poorest communities and workers. Their voices need to be heard in all key decision-making processes.
The Global Waste Crisis

There are already 4.35 billion people living in urban areas globally, and every day this population generates solid waste that needs to be safely disposed of. However, 2 billion people live without any form of waste collection, and over 90 per cent of waste in low-income countries is openly dumped or burned. As patterns of consumption change, volumes of waste increase, and municipal solid waste generation in lower-income cities in Africa and Asia is predicted to double by 2030.

The impacts of this waste crisis are far-reaching. Our focus is primarily on the people living in slum and low-income communities who are directly impacted by the rotting remains of uncollected waste; and informal sector workers whose working conditions put them at risk every day. In terms of health, uncollected waste provides a breeding ground for diseases and disease-carrying pests. When waste is openly burned, it can exacerbate acute respiratory infections. Waste can also block toilets and water drainage systems, causing spills of polluted water and sewage. Informal sector waste workers are at the frontline of health impacts and at risk of injury, infections, and disease. They also face social exclusion, harassment, and abuse.

As waste piles up, it can cause serious environmental damage. Heavy metals and other dangerous materials can leak, destroying valuable habitats and farmland. Poor communities that often live near large dumpsites are the most directly affected. Plastics are having serious impacts on freshwater and marine ecosystems. Dumpsites produce 12 per cent of total global methane emissions. Burning of waste emits black carbon which, while short-lived, has a disproportionate warming effect, contributing between 2 and 10 per cent of climate change emissions. The economic costs also mount up, with damage to livelihoods, and costs from ill health and disasters like flooding. Despite being an important local political and economic priority, absorbing on average 20 per cent of municipal budgets, waste management is a low priority on the global development agenda, attracting only 0.3 per cent of development aid in 2012.

A People-Centred Approach

Globally there is very poor data availability on solid waste management. Where data is collected, the focus is often on the waste itself, rather than the people within waste systems. Conventional analysis of flows, volumes and composition, or equipment and infrastructure overlook the services that people receive and the impact of waste on different communities.

Managing Our Waste 2021 addresses this oversight by shifting the attention to the people involved in providing and using waste services at the city-wide level. Two tools were drawn upon: an early version of the Waste Wise Cities Tool (UN-Habitat, 2021) and guidance for the WasteAware benchmark indicators (Wilson et al., 2015). In order to ensure a people-focused analysis, these were adapted with additional qualitative and participatory methods to explore people’s preferences and experiences. A gendered perspective was integrated throughout the research focus.

Fieldwork was completed in four contrasting urban areas between October 2020 and February 2021. In Africa, these were Dakar, Senegal; and Kisumu, Kenya. In Asia, we selected two smaller towns: Satkhira in Bangladesh and Dhenkanal in Odisha State, India.
KEY FINDINGS

In this report we put people back at the heart of the waste management picture. Our case studies illustrated a diverse set of contexts and existing provision of waste services. However, some common threads emerged.

Low access to even basic waste services
Citywide, the proportion of residents without a basic waste management service ranged between 61 and 93 per cent. This was greater in slum and low-income areas, with levels between 84 and 100 per cent of residents, except in Dhenkanal. Levels of access that are this low would not be acceptable for other forms of basic service.

Within households, impacts of poor waste management were experienced differently between men and women. In focus groups and interviews, women highlighted the tangible ways in which waste affects their lives and those of their children. They are also responsible for managing waste at household level and sometimes (not always) for paying for services.

Access to basic waste services

<table>
<thead>
<tr>
<th>City</th>
<th>Percentage at city level without basic waste service</th>
<th>Estimated no. of people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dakar</td>
<td>66%</td>
<td>1,638,000</td>
</tr>
<tr>
<td>Kisumu</td>
<td>75%</td>
<td>379,000</td>
</tr>
<tr>
<td>Satkhira</td>
<td>93%</td>
<td>158,000</td>
</tr>
<tr>
<td>Dhenkanal</td>
<td>61%</td>
<td>45,000</td>
</tr>
</tbody>
</table>

Tackling the waste that has the greatest impact on people
While a great deal of global attention focuses on plastics, the vast majority of waste by weight is organic. It is plentiful, heavy, messy, and polluting. When dumped indiscriminately, it harbours pests and diseases and significantly impacts the living environment. We found only a few examples of informal businesses collecting separated organic material.

Plastics make up a smaller proportion of household waste by weight, but are light, bulky, and long-lived in the environment. There are ready markets for dense plastics, which are widely collected by informal businesses, but this is not the case for thin plastics or composite materials and plastic sachets. In some places, this waste is burned but that carries its own health hazards. Other types of waste people found difficult to dispose of included single-use nappies and menstrual pads, which is a growing market.

Informal waste workers make recycling happen
In all cities, the largest proportion of recovery and recycling was handled by informal waste entrepreneurs. Between 20 and 84 per cent of households separate waste to give or sell to traders. These collectors, pickers, and aggregators are skilled in sorting, grading, cleaning, and processing waste to meet the needs of the recycling economy, and they also understand waste supply chains. However, they can be limited from expanding by stringent regulatory requirements, a lack of secure access to land, or lack of finance to invest in equipment.

Almost all workers in informal waste businesses face forms of discrimination and abuse, and are at risk when dealing with hazardous waste without sufficient protective equipment or safe processes. Women are often in the minority among workers and can be confined to particular roles, meaning they can only access less valuable waste streams. There were associations that actively work in three of the four cities to improve the lives of members.

Improving collection services does not always support recycling
Local authorities often find it hard to secure sufficient resources to deliver their mandate effectively, especially in secondary towns. Realizing there is demand for waste collection services, municipalities have often licensed the private sector to improve collection rates. Municipal efforts to boost collection can sometimes in fact lead to lower rates of recycling, and local authorities rarely manage to engage with or harness the dynamism of businesses involved in recovery and recycling. We found the resources, capacity, and support available to municipal and city waste managers was extremely limited, although the example of Dhenkanal shows there is scope for ambitious change.

The municipality is collecting and managing waste in a better way now ... but they still have a lot to do to make the city 100 per cent clean. I am disappointed, though. We (traders) make the city cleaner and contribute to the solid waste management in the city. However, our effort is not recognized by the municipality.

Papun, former waste picker turned successful trader in Dhenkanal, Odisha State, India
A CALL FOR PEOPLE-CENTRED ACTION

The scale of the global waste management crisis and the urgency of tackling it is beginning to be recognized, with growing initiatives on marine plastics and circular economy. The inclusion of an SDG target on municipal solid waste in 2015 was a welcome step. At the same time, informal waste workers have been organizing themselves, often supported by NGOs. There has been ongoing research highlighting the role played by informal workers, which Managing Our Waste 2021 builds on. However, there remains much to do to meet the needs of households without a waste service, and to tackle the rapidly growing volumes of waste openly dumped or burned. The impacts of this on health, the environment, and the economy are significant.

In this report we put people back at the heart of the waste management picture, with grounded evidence from four contrasting locations. We mapped poor levels of service and highlighted how women and low-income residents bear the greatest burden. We documented the range and scale of informal businesses, and the limited resources and capacities available to municipal and city managers.

Addressing these challenges in a people-centred way requires action by a range of stakeholders including city managers, national governments, global and national businesses, and development institutions and funders. Action on waste management cuts across a range of traditional development sectors, from urban development to livelihoods and economic development and youth empowerment, and environmental movements. Opportunities are growing, and the time is now to ensure they are harnessed for the greatest possible benefit to the most vulnerable people and the planet.

References


About Practical Action

We are an international development organisation putting ingenious ideas to work so people in poverty can change their world. Our vision is for a world that works better for everyone.

We help people find solutions to some of the world’s toughest problems, including challenges made worse by catastrophic climate change and persistent gender inequality.

We believe in the power of small to change the big picture. And that together we can take practical action to build futures free from poverty.

Big change starts small.