

Country and City Waste Landscapes: Improving transparency in data on plastic pollution

In November 2024, Member States will aim to agree on the text for a Global Plastics Treaty. The treaty will set the course for how countries should tackle plastic pollution. Baseline data on waste generation, waste management practices, and other related indicators are critical inputs for countries to develop their National Action Plans. However, often, these critical data points are either underreported or remain fragmented across multiple sources.

Building a comprehensive repository for plastic waste-related data

In a continued effort to simplify the search for these data points and facilitate an improved understanding of the plastic pollution situation, The Circulate Initiative has released the latest edition of the [Country & City Waste Landscapes](#) database. This edition includes new datasets at the national level and expands coverage to 100 cities/island states across 40 countries in Africa, Asia, Latin America, and the Caribbean.

The tool provides data on eight critical datasets to assess the plastic waste situation in selected countries and cities. New datasets include:

- Climate-linked indicators, particularly greenhouse gas (GHG) emissions from the waste sector, which provide an indication of the environmental impact of the waste management sector;
- The number of informal waste workers (including data on female waste workers where available), and information on minimum wages and living wages to provide a benchmark for workers' livelihoods and wages;
- Plastic waste-related indicators around single-use plastics waste generated at a country level and mismanaged and uncollected plastics, in addition to data on plastic leakage.

To illustrate the range of data covered in this edition, the following are some reflections:

Plastic collected for recycling and plastic leakage are more consistently tracked at the country level than at the city level

Data on plastic collected for recycling was found for half of the countries covered but only 25% of the 100 cities/island states. Data availability on plastic leakage follows a similar trend, with data found for 23 of the 40 countries and only 29 cities among the 100 cities/island states.

Countries should carefully assess the data availability of these data points and other related indicators, including plastic production, as they prepare for the treaty obligations. Greater clarity on the country's or city's waste management situation will enable them to plan targeted interventions that address plastic pollution.

Data on female informal waste workers is underreported, with data available for less than 20% of the countries tracked

Women waste pickers contribute to waste management from waste collection to sorting and recycling. However, they are [disproportionately impacted](#) by the frequently poor health and safety conditions and subject to greater forms of discrimination than male waste pickers.

Data on the number of female informal waste workers was available for only seven of the 40 countries, while the overall number of informal waste pickers was better reported, with data found for about 50% of the countries. Granular data on the number of waste pickers disaggregated by gender can ensure targeted programming.

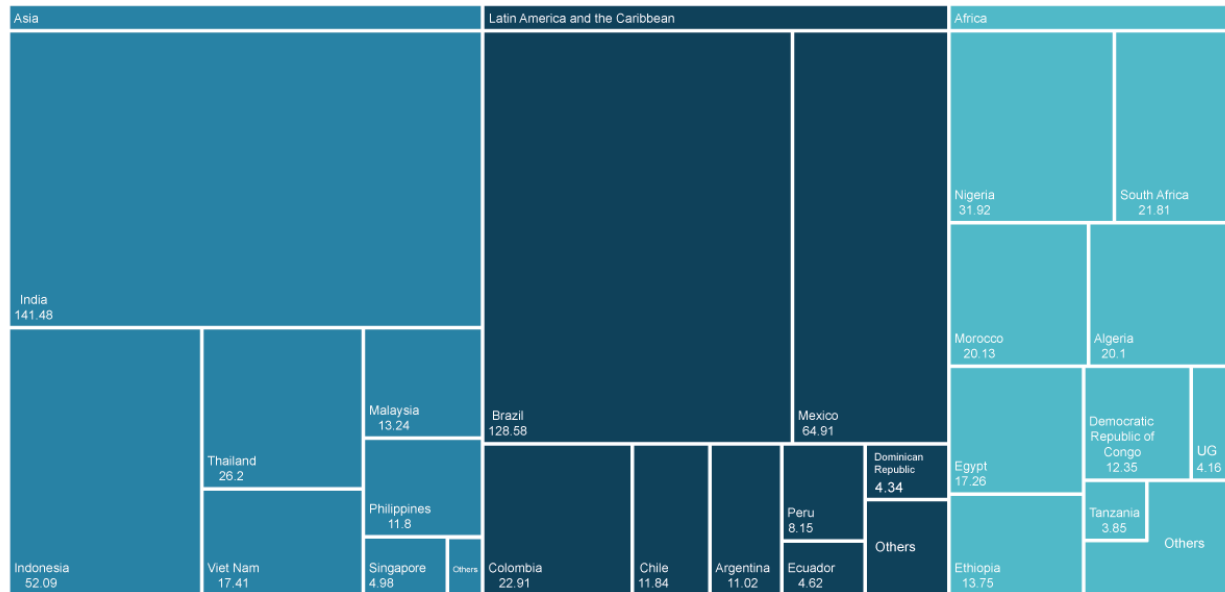
GHG emissions from the waste sector is a critical indicator as countries deliberate waste management practices

GHG emissions from waste, a new indicator added to the tool, range from 0.03 to 128.58 MT CO₂eq / year (Figure 1). Featured countries in Asia and Latin America and the Caribbean show a wider range of emissions compared to countries in Africa.

The emerging markets featured in the tool commonly have dumpsites and landfills from which methane emissions are released. Methane emissions make up most of the GHG emissions from the waste sector across the countries covered; therefore, the emissions from these waste management practices should be critically assessed. The [Waste Methane Assessment Platform](#) (WasteMAP) is an example of a key tool that aims to improve the transparency of solid waste methane emissions.

Although the definition of the waste sector here is not limited to municipal solid waste generation and management,¹ and granular data on GHG emissions estimation approaches can shed better light on the issue, this data provides an important starting point for countries to plan for waste reduction and management solutions that would bring the greatest impact to GHG emissions reductions.

Figure 1: GHG emissions from the waste sector in MT CO₂eq / year across the countries tracked



Source: Emissions Database for Global Atmospheric Research (EDGAR), 2023

Collectively improving accessibility of plastic pollution data

The Country & City Waste Landscapes tool leverages valuable resources from national databases, such as Peru’s Solid Waste Management Information System (SIGERSOL) and other resources like HUB Waste and Circular Economy and factsheets from UN Habitat.² National databases that compile the countries’ and cities’ waste generation data and relevant reports are good examples of governments’ efforts at better data reporting.

While simplifying the search for plastic pollution-related data, the tool highlights the significant data gaps at both the country and city levels. It is critical that updated datasets grounded in science-based approaches are developed to support effective decision-making to address plastic pollution.

Endnotes:

1. Waste, as defined in the EDGAR database, refers to solid waste disposal on land, solid waste composting, hazardous solid waste processing / storage, waste-water handling, and waste incineration, and is thus not limited to municipal solid waste management.
2. Other examples of resources are the National Waste Management Information System (SIPSN), Brazilian Recycling Atlas and Plastic Pollution Hotspotting and Shaping Action reports from the International Union for Conservation of Nature.