



Urban Agenda Platform

*The global platform for sharing progress, action and knowledge on the implementation of the New Urban Agenda to achieve sustainable urban development.*

# WASTE FLOW TOOLS

Award Scheme

Themes

Sustainable Development Goals

Others

Waste Management

Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable

## Summary

Waste flow tools offer cities the analytical guidance they need to create, manage and sustain effective solid waste management systems in response to growing urban populations. **TARGET USERS:** Individuals, Government **KEY CONSIDERATIONS:** Analysing waste flow helps cities establish priorities for plastic action.

## Background and Objective

Solid waste management is one of the most important functions of a municipal government. However, data on solid waste generation and management is lacking globally, especially in low- and middle-income settings. A lack of data hinders the development of waste management strategies and investments in infrastructure, leading to insufficient or absent waste management services. Poor collection and management triggers severe threats to public health, pollutes air and water, and is the main contributor to marine litter. Furthermore, a lack of internationally harmonized waste management concepts, definitions and methodologies, leads to incomparability of data and overlapping of concepts. The main guiding documents on environmental statistics, such as the Framework for Development of Environmental Statistics (FDES) and the System of Environmental Accounts (SEEA), give general guidance but leave a lot open to different approaches and interpretations.

## Actions and Implementation

Guidance tools in the form of data collection and monitoring technologies, flow analysis templates, leakage identifiers, and benchmark indicators help cities identify ways they can improve and sustain an integrated waste flow management system. Implementation of these tools enables a city to not only judge its own performance regarding the delivery of solid waste management services but also helps provide information for decision-making, prioritize funds and monitor changes over time. Waste flow tools leverage primary and secondary data on the municipal solid waste management system in a project area in order to design targeted and effective measures to improve solid waste management practices and reduce plastic pollution.

## Outcomes and Impacts

**CASE STUDY EXAMPLES** Waste Wise Cities Tool (WaCT) UN-Habitat developed the Waste Wise Cities Tool based on SDG Indicator 11.6.1 monitoring methodology. The Waste Wise Cities Tool enables cities to understand how much waste is generated, collected and managed in controlled facilities with waste composition. In 2019, the Waste Wise Cities Tool was pilot-tested in Nairobi, Mombasa, Kenya and Mahe, Seychelles. UN-Habitat also facilitated a local waste management stakeholder's workshop to identify key intervention areas. Action plans with several project concept notes and recommendations were subsequently developed for improved municipal solid waste management in these cities. These processes were compiled as a waste SDG capacity development package. Download the user guide at: <https://unhabitat.org/wwc-tool> Waste Flow Diagram (WFD) The WFD tool consists of a rapid and observation-based assessment to measure and visualize plastic leakage from MSW management systems into the environment. The tool also determines the fates where this amount of plastic leakage will end up, namely, water bodies, storm drains, land or burnt. The tool is harmonized with the WaCT (SDG 11.6.1 methodology), in that it has been incorporated as part of the 7th step of the methodology. The WFD tool directly inputs data obtained through the WaCT and combines it with additional data points obtained through the WFD tool. Download toolkits and user guides at: <https://plasticpollution.leeds.ac.uk/toolkits/wfd/> Wasteaware Benchmark Indicators Wasteaware is an international collaboration of waste professionals, academics and researchers. The Wasteaware Benchmark Indicators provide an online tool to assess the performance of municipal solid waste management and recycling systems in cities, municipalities or groups of municipalities, irrespective of income level. The indicators are a cumulative result of testing various prototypes in more than 50 cities around the world, designed to: Allow a city to assess its own performance regarding delivery of solid waste management services; Provide information for decision-making on priorities for funds available for service improvements, by identifying both local strengths that can be built on and weak points to be addressed; Monitor changes over time; and Allow benchmarking against the performance of similar cities, within a country or in different countries, on a consistent basis. Download the user guide at: <http://wabi.wasteaware.org/>