MUNICIPAL COLLECTION

Award Scheme	**Others**
Themes	**Waste Management**
Sustainable Development Goals	**Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable**

Summary

Municipal Collection is an essential foundation for any successful waste management system, providing dedicated collection points and/or door-to-door collection services. KEY CONSIDERATIONS: Waste collection and transportation are large cost sinks in municipal solid waste management and can account for up to 90% of total disposal costs in developing countries and countries in transition, but it is fundamental to any waste management system and must be prioritized.

Background and Objective

When plastic waste is not collected door-to-door or at dedicated collection points, waste is often openly discarded or burned. The lack of waste collection services in many cities and towns in developing economies is due to insufficient investment in collection infrastructure. This is especially true for non-recyclable plastics, such as plastic films, composites and sachets, that typically have a low residual economic value and do not create enough revenue to cover the cost of collection and sorting. This makes the collection a net cost activity, which is particularly challenging given that a large portion of ocean plastic is made up of these low-value plastics. While the long-term objective is to make them more recyclable and thus attractive to collect, there is a short-term requirement to increase the provision of funding for their collection.

Actions and Implementation

Every community needs a collection system; it is a core foundational element of any waste management system. Municipal solid waste collection is a public service that has a critical impact on public health and the environment, with local factors determining collection success. These factors can include climate, attitudes and expectations of citizens, economic factors, animals, type of waste, financial planning and purchasing, legislation, and architecture and infrastructure. What works in a European city of 400,000 people, can’t be directly exported to a city in Brazil of 4 million people, or to a city of 20 million in China or India. Understanding the living situations and needs of a city’s residents are vital inputs to designing and implementing a successful collection system. Do residents have space at home for 5 bins? Do they live in large apartment buildings or sparse homes in the countryside? Are they a young or ageing population? Such information can provide invaluable inputs that shape the collection system, from pick-up frequency, source separation requirement and expectations, to willingness-to-pay for collection services. Waste collection and transportation are large cost elements in municipal solid waste management. In countries with sophisticated waste incineration and sanitary landfilling capacity, waste collection and transportation can account for about half of the total waste disposal costs. In developing and transition countries with less sophisticated waste management programs, the collection and transportation costs may rise to up to 90 percent of the total disposal costs. There are a number of options that can help to fund collection services, including increasing the share of general municipal income that is allotted to solid waste management, increasing the portion of users who pay local charges or taxes, increasing tariff values, and other financial instruments highlighted as best practices on the Plastic Smart Cities platform. For more information, see UN Habitat’s Collection of Municipal Solid Waste, key Issues for decision-makers in developing countries.

Outcomes and Impacts

CASE STUDY EXAMPLES Rio de Janeiro In 2012, the City of Rio de Janeiro, Brazil collected only 1 percent of recyclables through official collection of separation activities, and reached less than one-third of the city’s residents. Given the great opportunity to increase the collection of recycled material across the city of 6.3 million inhabitants, the city prioritized household waste separation and collection programs. The city and its waste services program targeted an additional 31,000 tons of waste collected per year by 2015, in an effort to raise overall recycling rates to 5 percent. By 2025, the City is targeting a recycling rate of 20 percent. In an effort to increase door-to-door collection and waste separation, the City launched education campaigns, increasing recyclables pick-up frequency, building new processing points, installing EcoPontos (recycling drop-off points in low-income communities), and explored options to enhance reverse logistics. A major part of this program includes investing in the capacity of the city to accommodate the collection and processing of waste, which required the construction of six new processing facilities as well as coordinating with waste picker cooperatives. The project is financed with support from BNDES (Brazilian National Development Bank). See additional information at the Municipal Solid Waste

Knowledge Platform. San Francisco See also the city of San Francisco’s Zero Waste case study, a program started in 2009, with a key focus on waste separation at source, combined with collection in their effort to become a “zero waste” city: https://www.epa.gov/transforming-waste-tool/zero-waste-case-study-san-francisco The International Solid Waste Association (ISWA) ISWA’s “Working Group on Collection and Transport Technologies” developed a document to describe the development of waste collection systems in different countries and lessons learned. The report is intended to help decision-makers, especially in developing countries, to understand the assets and drawbacks of the different types of systems in practice. See ISWA: Overview of Household Systems in different Cities and Regions

Conclusion

ALTERNATIVE SOLUTIONS If waste is not collected door-to-door or at dedicated collection points, waste is often openly discarded or burned. There are no alternatives to the collection, aside from the complete prevention of plastic use.