



## 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.

# SOURCE SEGREGATION

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

## Summary

Source Segregation by regulatory instrument establishes rules that govern the quality of garbage collection at the household or institutional level, and that which can mandate or incentivize waste stream separation at the source of generation. **KEY CONSIDERATIONS:** Source Segregation reduces the upstream sorting cost and ensures that downstream recyclers receive clean feedstock, thus improving their ability to capture the value from post-consumer material streams.

## Background and Objective

An estimated 75 percent of land-based ocean plastic pollution comes from uncollected household waste, while the remaining 25 percent leaks from within the waste-management system itself. The total amount of waste is growing rapidly. The World Bank estimates that waste generation will increase by 70 per cent from 2.01 billion tonnes in 2016 to 3.40 billion tonnes in 2050. With at least one-third of global waste currently being mismanaged, it is clear that waste management systems cannot deal with current waste volumes, let alone the significant increases projected. While it is critical that every country has proper waste management infrastructure, the system at the moment is incapable of handling ever-increasing volumes of waste.

## Actions and Implementation

Source Segregation by regulatory instrument establishes rules to govern the quality of garbage collection at the household or institutional level, and that which mandates or incentivizes waste stream separation at the source of generation. Source segregation can play a vital role in improving the economics of waste management. It reduces the upstream sorting cost and ensures that the recyclers downstream receive clean feedstock, thus improving their ability to capture the value from post-consumer material streams. The primary challenges with Source Segregation is a lack of public awareness on sorting, as well as a lack of collection infrastructure to support segregated waste pickup. Effective Source Segregation requires community action, appropriate infrastructure to handle segregated waste and trained collectors. Several approaches can be employed to improve segregation, especially at the household level: Incentives for segregation: Households are rewarded or charged less for segregating organic waste. For example, an incentive-based source segregation model was adopted in Guiyang, China, resulting in a comprehensive net benefit of 18.3 CNY/ton (or US \$2.64/ton) after one year of operation. Penalties for non-compliance: Source segregation is mandated by local authorities, and households are either penalized for noncompliance or refused service by the waste management service provider. In Bangalore, India, the Bruhat Bengaluru Mahanagara Palike (BBMP) mandated segregation at the source in 2017, with fines imposed on violators. The initiative was successful in reaching a 35% segregation rate within one year. Rotating collection: Rotating the frequency of collection for different waste streams based on volumes. In Goa, India, Margao Municipal Council collects dry waste every Tuesday and Friday, whereas wet waste is collected every day.

## Outcomes and Impacts

**CASE STUDY EXAMPLES** See case study: IMPLEMENTING SOURCE SEGREGATION OF WASTE IN RESIDENTIAL COMMUNITIES - an initiative under the Alag Karo program in Gurugram.

## Conclusion



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**ALTERNATIVE SOLUTIONS** Some municipalities allow for households and business to mix all waste streams into a single container and either dispose of all waste by landfill or incineration, or by employing manual or mechanized separation at the waste facility.