

## **Waste separation at source: an example from Sapporo city**

### **ABSTRACT**

Waste management is a global issue that affects the sustainability of environmental resources in the face of increasing urbanisation. Although Malaysia practices landfill waste disposal, the country has adopted a solid waste separation statute to bolster household waste separation practices. Waste categories must be separated based on their composition, such as recyclable and residual waste. These wastes are collected once or twice a week. The compound will be charged to household residents who do not abide by this legislation. However, this legislation only applies to several states, excluding Sabah. For the capital city of Sabah, Kota Kinabalu's waste management system has been primarily based on landfill disposal. Its waste separation initiatives are limited to the National Recycling Programme for 3R practice. Here, a refinement of 3R practice can be introduced to facilitate a waste management system at the household level: waste separation at source, particularly by enforcing a law defining a distinct waste category, collection schedule, and mutual responsibilities. In this regard, this paper aims to introduce and understand a well-established waste separation guideline in Sapporo city, Japan. Several noteworthy findings were made: (1) 40% reduction in burnable waste, (2) increased community awareness of waste separation and recycling, (3) practical habits for local environmental conservation, and (4) an extension of the lifespan of the landfill. Equally important, law enforcement guarantees the industries to manufacture environmentally-friendly consumer products for efficient waste separation. These findings may serve as a model for a facile and robust approach to addressing the current waste management system in Kota Kinabalu.