

Municipal solid waste recycling in Malaysia: present scenario and future prospects

ABSTRACT

This paper presents a current state-of-the art of municipal solid waste (MSW) management and recycling in Malaysia. It was revealed that mainly four sources were involved in the recycling program, e.g. recycle centers, recycle boxes, waste collectors and paper recyclers (by door to door collection system). On average, paper, aluminum, glass and plastic account for 63, 21, 15 and 1% of the recycled materials, respectively. The total waste generation was estimated to be 144 tons/day in Serdang and Seri Kembangan areas based on the number of collection vehicles, trips per day and vehicle capacity. The total recycled quantity was, however, about 2678 kg/day. Only 1.8% of total generated MSW was recycled, which is deemed to be very low compared to developed countries. Therefore, it is recommended to educate, motivate and encourage the citizens of Malaysia for reusing, recovering and recycling. It requires collaborative and consistent efforts, and technical know-how for a successful recycling program. Finally, some possible means of promoting the recycling program were recommended based on the current practice of developed countries. The first step would be the separation of recyclable items at sources or generation points. The local authorities and recycling organizations can play an important role in educating/motivating general mass through producing and disseminating appropriate guidelines.

Keyword: Municipal solid waste (MSW); Recycling; Recycled materials; Waste; Generation