

## **Waste source separation planning by cost-benefit analysis in Tehran-Iran.**

### **ABSTRACT**

The paper came up with a full cost-benefit analysis of Tehran's source separation program for beverage containers. It provides covered examination of the cost elements of this program of storage, collection, and the treatment costs of empty containers, as well as all possible benefits such as by savings through an alternative treatment costs (waste collection and landfill disposal), energy-savings, and externalities associated with used recycled materials, reduction of landfill volumes, import and export of the product, and the creation of new workplaces. This research only includes the variable of operating costs and utilized a wide variety of data resources. Particular critical issues are examined through several necessary approaches. The finding of this research mainly is that the Tehran traditional combinatorial program performance was proved economically worthwhile but was costly due to the fuel consumption in the collection of recyclable materials which was much higher than other programs. This paper distinctively analyzed the savings we could make from alternative source separation program. It revealed better savings than the usual hence showed that the combinatorial program is highly efficient. This source separation program shrinks the cost of the collection and treatment for municipal waste management system. In addition, the net benefits are seen positive for all types of source separation programs, plastic, and glass and metal and that source separation program is economically constructive for the economy of the nation.

**Keyword:** Waste management; Waste source separation; Cost-benefit; Waste planning; Operating costs.