

Evaluating sustainable waste management(household Waste) in Tehran, Iran.

ABSTRACT

The aim of this study is to identify the most fitting scenarios of waste source separation in the integrated waste management scheme in Tehran, Iran by examining the key factors by applying multi-criteria decision-making method (MCDM). This paper emulates four different scenarios involving various separation methods including buyback centres, door-to-door services and kerbside. These scenarios were assembled from environmental source consumption, economic and social perspectives and then ranked on the basis of MCDM method. The information gathering was based on foreground data and not on background data. This study has taken in to account only the source with no engrossment of environmental emissions, economic and social aspects of the source separation programs. The results of this study showed that a fourth scenario with buyback centre + door-to-door service with 8-litter bin+ kerbside with blue container is the best scenario for managing waste source separation in Tehran because of the highest level of public acceptability, with lowest risk and low cost in door-to-door service and with reduced collection frequency. The selection of this method proved that the costs can be reduced without having a huge impact upon recovery.

Keyword: Sustainability; Household waste; Source separation; Iran; Developing countries.