

EMPLOYING TECHNOLOGICAL METHODS TO MANAGE PLASTIC WASTE MATERIAL.

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Abstract: Various technological methods have been employed to manage plastic waste material for many decades, but their origin is not easy to locate. The aim of this study is to identify effective technological methods that can be employed to manage plastic waste material in areas where municipal solid waste collection services are inconsistent or not existing. Objectives are to assess if old methods of managing plastic waste can be improved through modern technology to protect humans and the environment from harm. A desk-based method was used to collect data from all continents of the world. Collected data was analyzed by using SPSS version 27.0. The evolution of technological methods is included. Effective technological methods ideal for management of plastic waste material and their importance in both developing and developed countries worldwide are well documented. Findings for this study reveal that today, recycling and reuse of waste items are methods of choice particularly in most developing countries. These methods are easy and cheap to implement, thus in most areas, recyclable items such as plastics have been recognized as economy boosters for poor people who earn a living through selling these items to recycling companies. The outcomes of this study will sensitize various governments in countries where plastics are eyesore to come up with policies that will assist municipalities to manage plastic waste materials effectively. It will boost the economy of various developing countries. Most communities in developing countries lack knowledge on how to manage plastic waste and this study was conducted to fill this gap in knowledge.

Key words: environment, negative impacts, plastic, recycling, technology, waste, waste management