

THE APPLICATION OF SOLID WASTE MANAGEMENT MODEL FOR HOUSING SOCIETIES AND ROLE OF ELDER, WOMEN AND CHILDREN IN THE URBAN SOCIETIES- A STUDY

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Abstract

Global Solid Waste Management (SWM) has become a severe challenge as a result of modern lifestyles that place a high priority on consumption and disposal. Pressure on our planet's land space exacerbates the issue. Waste results in a significant waste of resources, including materials and energy. In fact, the amount of garbage generated might be seen as a measure of society's materialism. The women were the backbone of the program. Their involvement in the program was necessary as they were the one who were responsible for daily segregation of the waste. Several methods were used to collect the data needed for this descriptive research. In order to comprehend a research technique, a descriptive and experimental design entails the process of gathering, evaluating, and "combining" either qualitative and quantitative information and methodologies. Findings showed that model was constructed and implemented in the urban societies. In total there were 130 houses under the implementation of the model. Women are the backbone of the society, as they played a major role in the implementation of this model. The senior citizens, women and children in the respective societies played an important role in the implementation of the model. As a result, the issue of SWM will be reduced to 70% when the Community based Model is used properly.

Keywords: *solid waste management, Model, implementation, urban society.*

Introduction

Massive amounts of garbage are produced all over the globe, and the most pressing topic is how to handle them properly and efficiently to protect the environment and ensure humankind's continued existence (Singh, 2020). Everyone may potentially produce garbage, which makes them a part of the issue. Although waste is produced by a variety of industries and sectors, including the home, commercial, and industrial ones, waste management has only been the duty of the government or administrative authorities (Goel, 2017). Because of this, the issue of Villages, townships, and villages still face difficulties with management of solid waste (Somani et al., 2021). The disparity between India's expanding urban demographic and the facilities and equipment it has exposure to is glaring. Waste management is the one services which has a great desire to provide. No efficient solid waste management removal systems can be found to manage the increasing amount of trash (Goel, 2017). Waste generation management forms a component of environmental toilet facilities and is governed under Matters enumerated under Indian Constitutional (Gupta et al., 2015). Due to the fact that the services isolators and non-rivalled, the responsibility to offer it comes in common jurisdiction, and vital activity. The Urban Local Bodies are given responsibility for the local activities (McCarthy, 2016). The Urban Local Body uses its own personnel, resources, and budget to offer solid waste services. A small amount of the aforementioned job is sometimes farmed out to private businesses (Singh, 2020). The aim of the study is to analyse the application of Solid Waste Management Model for Housing Societies and role of elders, women and children in the societies

Material and method

The current state of SWM, as well as public knowledge of SWM, are described in this paper. For the purpose of gathering the data for this descriptive study, a variety of methods were used. Based on the technique, the

researcher simultaneously gathered quantitative and qualitative data, individually examined each data set, then combined the two databases during interpretation.

Data collection

The present study was based on both primary and secondary data. Fieldwork was undertaken over six month's period in 2022-23.

Collection of Primary Data

Relevant research data may be gathered using a variety of techniques, including telegraph personality questionnaires, surveys, etc. The current study's data gathering primarily focused on personal interviews and observations.

Secondary Data

With regard toward the 10 states, quantitative information gathered from numerous sources was collated, and please note was carried out.

Result and Discussion

Solid Waste Management Model

This model of the Solid Waste Management of Housing Societies will integrate composting, segregation as well as the use of sanitary landfills idea is Zero garbage.



Figure 1: Diagrammatic Representation of the Solid Waste management Model of Housing Societies

The secretaries of all these housing societies were approached. They were informed about the model and permissions were obtained for the implementation of the model individually in every society meetings were held of all the households. The households were briefed about the model. As per the requirement every house had to keep two dustbins one was for dry waste and the second for wet waste. There were briefed about the

problem of Solid Waste, its ill effects and the importance of segregation of waste (Singh, 2020). Further the impacts of the model were discussed if successfully implemented.

One weeks' time was taken as a practice period. The second meeting was conducted after 7 days, where most of the households were ready to start the process.

In the similar manner the waste collector of each above mentioned societies were explained about keeping the wet waste and dry waste in 2 separate bins. Arrangements were made by the society secretaries for two bins and space for storage of dry waste.

IMPLEMENTED



Figure 2: Two Bins in All Societies Where the Model Was

ATTENDANT



Figure 3: Collection of Dry Waste by The Municipality

The collection of dry waste was to be done by the municipality once a week. The municipality dry waste van was informed about the same. The wet waste was to be converted into compost. For these arrangements were made in the society compound. The conversion of waste to compost on an average took 21 days. The compost was used to grow plants in the society compound.

In total there were 130 houses under the implementation of the model. Every society habits own setup arranged, for the composting as shown in the pictures below.



Figure 4: Picture of the Compost Drums

At a time only one container was used. At the bottom of the container, a thin layer of sugar cane bagasse was laid which was covered by thin layer of soil. Above this a thin layer of cow dung was made and again covered by thin layer of soil. Above this the wet waste was put. Above the waste a thin layer of soil was sprayed to avoid foul smell. This process continued every day.

After 15 days, the next the second container was used. The first container was sprinkled with water and the compost was stirred every second day. After 21 days it was seen that the waste was completely converted into compost. The compost was used in the society garden, and pots for plants.

The compost formed was dark brownish black in colour, sweet smell and mixed in size. The society residents were astonished to see the conversion of the waste to such a product.



Figure 5: Composting Process

On an average each household generated 500gms of wet waste.

130X 500gms = 65,000gms that is 65kg of wet waste was put for composting every day.

On an average the selling price of compost is Rs 25 per kg.

Role of elders, women and children in the societies-

The senior citizens in the respective societies played an important role in the implementation of the model. As resource persons they contributed their experiences, at the same time played an important role in checking whether the sweeper of the building did store the dry waste, also the wet waste was put in the compost drum as per the requirements. They also helped in convincing all the flat members who were reluctant to follow the

18995

instructions of segregating waste. The supervision of the elders helped to maintain the consistency of the functioning of the model.

During the programme women's participation was very enthusiastic. They played key role in the implementation of the model. The role of children was also very important. Educating orienting and involving them in the whole process of segregating waste was of prime importance.

Conclusion

The senior citizens, women and children played a very important role in maintaining the sustainability of this Community Based Model. It is extremely important to bring awareness among the community that they are responsible for the waste they generate, and it is prime duty to see that this waste is disposed off in the right manner. All the society members expressed their desire to continue the implementation of the model. But in the long run for the sustainability of the model, motivation from the municipality is a must.

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