I J R B A T, Vol. VI (Special Issue 1), January 2018 : 416- 422 ISSN 2347 – 517X

INTERNATIONAL JOURNAL OF RESEARCHES IN BIOSCIENCES, AGRICULTURE AND TECHNOLOGY

www.vmsindia.org

A COMPREHENSIVE STUDY ON HOUSEHOLD WASTE MANAGEMENT PRACTICES

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ABSTRACT

Waste management and treatment is a major problem faced by municipal bodies all over the world especially in India. Waste management techniques are not up to the mark as far as the increasing population of the city is concerned. Disposal vehicles, small auto rickshaws, hand carts and tricycles are provided to maximize the collection of waste. Still the facilities are inadequate, and it is an ardent need to improve the solid waste. Moreover the authorities of municipal council are apathetic towards MSWM (Municipal Solid Waste Management). Considering all these factors such as increasing population and industrialization the strategy should be well developed and formulated. This research paper was to present "Comprehensive Study on Households Waste Management Practices". 100 homemakers in Nagpur city of Maharashtra State were taken convenience technique was used for research design. Questionnaire cum interview method were used for collection of data. The data analyzed using chi-square test showed, calculated value is greater than table hence (Ho) is rejected. Its means homemakers are aware about waste management. The study reveals the necessity of giving mass awareness to the impact of waste disposal practices from the beginning of school education.

Keywords: Waste Management, Disposal vehicle, Homemakers.

INTRODUCTION

Waste is defined as any solid or semisolid, liquid or contaminated gaseous materials discarded from industrial, commercial, mining or agricultural operations or community household activities. Rising quality of life and high rate of resource consumption patterns have had an unintended and negative impact on the environment. Generation of waste far beyond the handling capacities of the government agencies require drastic measures. The current emphasis is on waste disposal that is focused on the community and private sector participation involving behavior

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change and awareness rising. (Asha Jyothi, 2010)

Solid waste comprises unwanted and discarded materials from houses, street sweeping, and commercial and industrial operations. Generally, solid waste is heterogeneous in nature such as mixture of vegetables, food items, paper, plastics, rags and glass. If solid waste is disposed off on land in open areas, then it causes a negative impact on the environment, ground water and on health.

The most common problems associated with improper management of solid waste include diseases, odor nuisance, fire hazards, atmospheric and water pollution, aesthetic nuisance and economic losses (Jilani, 2002). There has been a significant increase in solid waste generation in India over the years from 100 gm per person per day in small towns to 500 grams per persons per day in large towns. Currently most of the municipal waste in India is being disposed unscientifically (Akolkar, 2005). Generally municipal solid waste is collected and deposited in landfill such unscientific disposal attract birds, rodents and fleas to the waste site and create unhygienic conditions (Suchitra, et al. 2007). The degradation of the solid waste results in the emission of carbon dioxide (CO2), methane (CH4) and other trace gases. The unscientific landfill site may reduce the quality of the drinking water and causes the disease like nausea, jaundice, asthma etc (Bean, et al. 1995).

Definition of Solid Wastes

- Solid Waste is defined internationally as the non-liquid waste materials arising from domestic, trade, commercial, industrial, agricultural and mining activities and from public services.(K.S. Ashalakshmi, 2010)
- Solid waste is usually being said as the following terms;

a) Garbage: the term given principally to food waste, but may include other degradable organic wastes.

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b) Rubbish: consists of combustible and non-combustible solid waste, excluding food wastes.

c) Refuse: the collective term for solid wastes, includes both garbage and rubbish.

d) Litter: odds and ends, bits of paper, discarded wrappings, bottles etc. Left lying around in public place.

- "Solid wastes are any discarded or abandoned materials. Solid wastes can be solid, liquid, semi-solid or containerized gaseous material".

Purpose of study

In the absence of proper household management practices in house, the waste lies on the streets, vacant, road sides and the waste water drains which cause water blockage and creating bad odour cause environment pollution. Because of these problems different health hazards are developing. Hence, keeping all these in mind the present study was undertaken concentrating only on the household waste management practices.

Objectives

1) To know the socio-economic status of homemaker.

2) To study the difficulties faced by homemakers for waste management.

3) To suggest some different practices for better waste management.

METHOD

The areas were selected for this survey from the Nagpur city of Maharashtra State. The samples are homemakers. The samples are homemaker 100 samples were selected by convenience sampling technique. The data was collected through questionnaire come interview method.

The socio-economic profile helps to understand the age, education, marital status, family income, type of family, family size and occupation. As per the above result conclude that majority of the respondents were in the age group of 21-30 years i.e. 58 percent and the highest education level was graduated 46 percent of the respondents. Most of the homemaker was young and

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educated. It was found that maximum respondents belong to nuclear family and maximum respondents marital status was married i.e. 88 percent. 42 percent respondents annual family income were between 3,00000-4,00000. It was observed that 63 percent had 2-4 members in family and 39 percent respondents had job. 20 percent homemakers were self employed and 41 percent were housewife (Table 1).

Bad waste management practices create so many problems. The common problem faced by the homemaker was disposing the waste. 77 percent respondents have a storage problem. 72 percent respondents complained about insect, mosquitoes, flies and rodents in breeding places. While 70 percent respondents explained unpleasant odours, 58 percent respondents explained unhygienic surrounding. Another 49 percent respondent complained street dogs these were the problems faced due to accumulation of waste. Less than 41 percent of all the category of respondents expressed health problem, overflow of drainage, environmental problem and polluted waste supply (Table 2).

Homemaker gave this suggestion for proper waste management practices. Most of the respondents suggested that avoid plastics used i.e. 77 percent and 72 percent suggest here that educate people about keeping public area clean. Another 65 percent respondents gave suggestion covert garbage into compost which is used in agriculture purpose. For proper waste management 60 percent suggest conduct awareness programs in schools, colleges etc (Table 3).

Conclusion

From the present study it has been concluded that majority of the respondents were young, well educated, and they have knowledge about waste management but practically they do not apply proper waste management practices. They do not segregate garbage wet waste (organic waste) convert into vermi-compost. There is need for

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conducting training program related to environmental safety and vermi-composting for the homemakers.

Thus, at the household level proper segregation of waste has to be done and it should be ensured that all organic matter is kept aside for composting, which is the best alternative method to overcome this problem.

Table 1: Distributions of the respondents on the basis of socio-economic profile

Sr no.	Socio-economic profile		**Frequency/ Percentage (%)**
1.	Age	21-30	58
		31-40	17
		41-50	16
		50 above	9
2.	Education	Illiterate	1
		Primary school	3
		S.S.C (10^{th})	5
		H.S.S.C (12^{th})	8
		Graduate	46
		Post graduate	37
3.	Marital status	Married	88
		Unmarried	3
		Divorce	9
4.	Annual family income	1,00000-2,00000 lakh	40
		3,00000-4,00000 lakh	42
		5,00000-6,00000 lakh	11
		More than 6,00000 lakh	7
5.	Types of family	Joint family	34
		Nuclear family	66
6.	Family members	2-4	63
		5-7	31
		8-10	6
7.	Occupation	Self employed	20
		job	39
		Housewife	41

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Table 2: Distribution of the respondents on the basis of problem faces by accumulation of household waste.

Sr No.	Problems face	Frequency/ Percentage (%)
1)	Storage problem	77
2)	Unpleasant odour	70
3)	Street dogs problems	49
4)	Insect, mosquitoes, flies and rodents in breeding places	72
5)	Unhygienic surrounding	58
6)	Environmental problem	39
7)	Health problem	41
8)	Polluted waste supply	36
9)	Overflow of drainage	39

Table 3: Distribution of the respondents on the basis of suggestion on proper waste management practices.

Sr No.	Suggestions	Frequency/ Percentage (%)
1)	Avoid plastic	77
2)	Segregate organic and inorganic waste	55
3)	Convert garbage into compost	65
4)	Get your own shopping bag	59
5)	Dry waste could be recycled	44
6)	Recycling plant at local level	43
7)	Waste as 'resource' and not a problem	39
8)	Donate old clothes and fabric	56
9)	Buy food that has less packaging	33
10)	Fine the people who litter	50
11)	Prepare disposal of garbage in bins	56
12)	Conduct awareness programs in schools, colleges etc.	60
13)	Educate people about keeping public area clean	72

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