

Appraising the role of women in managing the household waste for sustainable environment

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ABSTRACT

Besides facing many other problems by the number of countries and cities, one of the foremost problem is accumulation of waste. Waste is anything which is not used by its possessor and thrown or discarded. There are many reasons that contribute in rapid waste generation, i.e. increased population, swift urbanization, changing lifestyle, etc. Household waste is the prime source of waste accumulation in every country. It is essential to identify the role of women who help in competent dealing of waste at household level. The sustainability of the environment is very much reliant on the manner in which the excursion of waste takes place from cradle to grave. Consequently, the study was undertaken to appraise the role of women in managing household waste for sustainable environment.

Key words : Waste, Household, Women, Environment.

Introduction

The waste has become a critical issue now a days. Due to the rise in economic growth and revolution in the consumption pattern of people, it has transformed and increased the waste. It had been found that waste generation is higher in the developed countries. It is really sad to see the situation in a major part of India too, though in some places the situation is slight better.

Every year 70 million tons of waste is generated by the Indian cities. This number was 40 million tons before ten years, and it may rise to 140 million tons in the coming years. The maximum amount and the highest per capita waste is generated by the metros, having the population of more than five million. Six large metros generate over 600 gm/day waste per capita, which is much more than the national average of about 450 gm/day. It had been

found that cities having population less than 5 million and are also class I cities generate waste between 430gm/day and 490 gm/day. (www.ifinpanorama.com/Waste.aspx).

According to the World Bank, sixteen percent of the population of high income countries are collectively accountable for generating more than one third of the waste of the world. Whereas, nearly a quarter of the total solid waste is generated by the East Asia and Pacific region. It is predicted that Sub-Saharan Africa would generate waste three times more than the existing levels, while it would be doubled in South Asia (Silpa *et al.*, 2018).

The growth of the population and the generation of solid waste has an unpredictable trend. The rate of growing population may be varying, but the trend of urbanization has played a significant role in the growth of solid waste generation.

Roy Chaudhary (2014) too revealed in his study

that India generates about 60 million tonnes of trash every year. Ten million tonnes of garbage is generated in just six metropolitan cities of the country: Delhi, Mumbai, Chennai, Hyderabad, Bangalore and Kolkata (Roy Chaudhary, 2014)

Ramesh had mentioned in his article (Will India Need a Landfill the Size of Bengaluru By 2030?) Those Forty-three million tons of solid waste are collected per annum in India, from which only 22-28 percent waste is treated and the rest is dumped at landfill sites without any treatment. Owing to rapid growth in population and urbanization, there is a massive progression in waste generation too. In 2016 Mr. Prakash Javadekar was environment minister at the time. According to him, every year by India sixty two million waste has been generated in the country and this may increase up to 165 million by the year 2030. This shows that more land would be required for landfills to dump the waste. Therefore, if the existing scenario of waste management did not be taken care of, then soon it would bury us all in our own muck (Ilangoan, 2017).

From the above discussion, it could be concluded that in India the problem of waste generation is a matter of great apprehension. Moreover, day by day the lack of landfills and ill-treating the waste is becoming a threat to humans and the environment both. Hence, it becomes vital to control and manage the waste in the proficient manner.

A. Rationalization of the Paper

From the time immemorial we have comprehended the relationship between women and the Environment. The World Bank in 1991 said that, "Women's role in managing natural resources, is very critical. They have a virtuous knowledge about the natural world around them." Many studies have found that women are close to nature and play vital role in sustainability of the environment. Competent management of household waste is one of the key factor in maintaining the sustainability of the environment (Mago and Gunwal, 2019).

Women are the integral part of home, or else it can be said that they are the epicenter of all the household activities. Due to their imperative nature they are able to do the work with efficacy and efficiently. Household waste is one thing which is generated by each and every household, it is unstoppable, but yes, the introspection and control of this household waste lies in the hand of a homemaker. Day by day the volume of household waste is swell-

ing and it is getting difficult to tackle it. It's very essential to realize that what people contemplate their household waste is just as a waste. Many studies were conducted to give the understanding and knowledge of household waste to the homemakers. In the present paper, an attempt is made to appraise the role of women in managing their household waste.

Objectives

The paper has been written with the following objectives:

1. Exploring the literature in the field of household waste management.
2. Appraising the role of women in managing household waste
3. Finding lacunae in proficient management of household waste.

Methodology

In the present paper secondary data collected, were used as a source of information. Several published and unpublished research studies, online, offline articles, books and blogs are used as collecting source of data for the related field of investigation. The selected studies were scrutinized and complied to appraise the role of women in managing household waste.

Results and Discussion

Asha Jyothi carried out a study in Bangalore with homemakers where she had measured the level of knowledge of the homemakers on biodegradable household waste, before and after the intervention program. The study was carried out in Bangalore, where 60% of municipal solid waste was biodegradable. It was found that most of the biodegradable waste comes from the kitchen. Almost half of the respondents had knowledge about waste segregation. Though, most of them did not know the ill effect of improper waste management. Knowledge level of the homemakers before and after the intervention program was assessed, and it was found that pre intervention 36% of the homemakers had inadequate knowledge and 51% of the homemakers had moderate knowledge; whereas, after the intervention it was revealed that the level of knowledge had increased where 73.7% of the homemakers had adequate knowledge. Due to lack of knowledge,

homemakers were not able to segregate their household waste. From this it could be presumed that lack of knowledge among women can be a hindrance in appropriate waste management. (Asha Jyothi, 2015).

In the study of Tiwary, homemakers reported that at household level the daily waste generated mainly contains plastic bags, empty water sachets, waste papers, empty cans and tins, diapers, leftover food, fruit and vegetable remains, paper or cardboard packaging, empty tetra packs, cloth rags, used tissue papers etc. among which plastic bags and empty water sachets were found in a larger amount. It had been revealed that woman is the one who is responsible for managing the household waste. The study in Damaturu, Nigeria shows, that homemakers don't sort their household waste though, they spend lot of time on various household chores still they can segregate their household waste as they were not employed anywhere. The illiteracy could be the main cause for this but among literate women, more than one third of the homemakers were not concerned at all for segregation of household waste. Also two third of them never thought of the adverse effect of indiscriminating waste, disposal (Tiwary, 2015).

In Chennai City, Mohamed conducted a study on homemakers where she had carried out an intervention program on urban household solid waste management. A vast difference was found in the knowledge of homemakers between the pre and post intervention program, especially in the field of waste segregation, waste recycling, kitchen waste compost, home composting etc. Remarkable change was seen in the homemakers, pre and post - intervention attitude and practices. Almost 100% of homemakers said that after the intervention program they started reusing, recycling and composting of the waste generated in their home, which had reduced the amount of household waste generation. It can be assumed that more community based intervention program would help in improving the urban solid waste management (Mohamed, 2016). Eugene, Busch and Nkengla found in their case study at Karachi-Pakistan and Buea-Cameroon, women can have a strong part in household waste management irrespective of city, nation, cast and creed. They also have a great sense of waste management and environmental sustainability (Eugene and Nkenglac', 2013).

In Nigeria, it was discovered that the large number of the population was of women folk in the

Bauchi metropolitan area that dominate the gender, i.e., nearly half of the total population. Nearly 60% of them were unemployed, who had no income. As they were not employed anywhere, they had a lot of free time after their daily household chores. This free time could be used to generate income through solid waste segregation at the household level. The study also discovered that in the generation and storage of household waste, women play more dynamic roles than men (Gani *et al.*, 2012).

Usually managing household chores and activities related to it are presumed by women. But, it was interesting to reveal that, compared to men, women were more active in the separation of waste in their homes. (Babaei *et al.*, 2015)

The study in Watampone City, Sulawesi in Indonesia showed that housewives lack knowledge about waste management. Many people were seen disposing of plastic waste on roads and in public places, whereas housewives mostly used to burn their waste, but some of them did make compost and organic liquid fertilizer from household waste. Managing the household waste was not given the importance by communities and local governments, which is still an issue (Asdariah *et al.*, 2015).

Davies and Kudzai gave emphasis on the involvement of women in household waste management. It was revealed from the study that the majority of the respondents were in the favor of women as they play an essential role in solid waste management and are more concerned with the environment as it affects the health of their families. Only 40% agreed on the total involvement of women in solid waste management program enforced by the government. Also, it was found that in comparison to men, women gave more importance to efficient waste management, but they were not much involved in community decision making related to waste management (Davies and Kudzai, 2016).

Srivastava and Patel had conducted a research study regarding household waste disposal practices among low income group women of Anand and Vallabh Vidyanagar in Gujarat. They had reported in their study that the area of residence does affect the awareness of women related to household waste disposal practices. Majority of women were not very familiar with the 3R concept. Moreover, they were not cognizant about the reduction of waste in their household. This reflects that imparting knowledge among women related to appropriate waste management and to acquaint them with the concept

of 3R is very essential for competency in managing household waste (Srivastava and Patel, 2017)

The Philippines and Vietnam reported in a study, Indonesia waste disposal behavior with respect to gender that, more women were binners compared to men as litterers. While in Philippines not much difference was found among binners, litterers and recyclers. In Vietnam the binner and litterer categories among women and men were equal and more women were identified as recyclers. Also it was disclosed that more women compared to men were interested in knowing about impact of waste after disposal. (Krishnan and Backer, 2019)

A study at Kannur district of Kerala state has disclosed that nearly 94% of the respondents had an average attitude towards managing their household waste. More than three-fourth of the respondents were housewives. Majority of the respondents articulated their willingness for composting, segregation and recycling of their waste. More than two-third of the respondents were not satisfied with the work the government is doing in the area of waste management. All the respondent strongly believed that there should be some kind of training to generate cognizance regarding appropriate waste management as they were apprehensive towards inappropriate and illegal storage and disposal of waste (Kaithery *et al.*, 2019).

From the above studies it becomes very clear that women in our society are accountable for all household tasks whether it's cooking, taking care of family members or managing the waste of their households.

Lacunae

The advent of 21st century made sustainable management of waste the top most priority of the nation not only in India but at a global level. Looking into the devastating repercussions of waste accumulation, while planning for the future, necessity of a holistic concept of integrated approach towards waste management is realized. To comply with best management practices at the first place, it calls for reduction of waste at the source. Secondly, generated waste has to be recovered for composting and recycling. Finally, disposal of waste has to be environmental friendly, such as through combustion facilities. It was discovered from the studies that, mostly people are aware of traditional and crude methods of waste management. They are ignorant of the modern methods such as incineration and re-

cycling (Twumasi, 2017). Awareness and knowledge modifies the attitude of people. People with lack of Knowledge regarding household waste disposal have negative attitude towards waste disposal in their homes. People must have good practices regarding household waste disposal in their homes. Moreover, Poor waste disposal practices lead to contamination of environment, thereby increasing the burden of infection and diseases among the peoples. Practices can be improved by providing knowledge regarding household waste disposal. (A. Shahzadi *et al.*, 2018). The results of Almasi's study showed that only 2% of the individuals separated the waste from the source. However, most of the segregated waste was mixed up by garbage collectors (Almasi *et al.*, 2019).

It was realized that lack of illiteracy, nonexistence of knowledge and absence of awareness affects the attitude and practices of women towards their household waste and its management. Knowledge, attitude and practices are all associated. Illiteracy and knowledge are the footing on which an attitude of the person can be developed.

Conclusion

It had been realized that managing household waste is the ultimate responsibility of women, be it a homemaker or a worker. It's presumed that women are more intense towards nature. In addition, there is a lot of differences in outlooks and thinking of men and women. Women could easily connect to the environment and realize the gravity of the environmental issues and need of adeptly managing the waste in their homes. For an efficient household waste management it's very important that people should be aware of the consequences of inappropriate waste management and need for appropriate waste management. Unhealthy practices of waste management are a habit formed due to lack of environmental sensibility, and nonexistence of knowledge and awareness could be the reason for it. Community participation is one of the most significant aspect if one has to promote appropriate household waste management practices. By spreading knowledge and awareness regarding need for appropriate waste management, one can develop a sensible attitude amongst people and would motivate them to change their habit. Furthermore, it could help in redefining and better understanding of women's role in competently managing their household waste in

order to maintain the sustainability of environment.

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