

A STUDY ON STUDENTS PERSPECTIVE TOWARDS SOLID WASTE MANAGEMENT IN MUMBAI CITY

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ABSTRACT

Solid waste management (SWM) is an important indicator for overall health of citizens and environment of the locality. In modern civil society, SWM has been a serious issue in economic development, environmental degradation and human health. One of the main reasons of solid waste generation beyond imagination is rapid urbanisation, industrialization, exponential increase in use of plastics, improved standard of living etc. SWM has no longer been an issue, limited to urban cities and clusters but also commercial and industrial areas, workplaces, offices, market yards, shops, hotels, hospitals, social organisations, agriculture sector, real estate sector are generating considerable amount of solid waste. Also due to the improved life style, generation of E-waste and concept of use and throw, has added to the already monstrous issue of SWM. And last but not the least, increasing use of disposable items has added to the SWM challenge.

Considering the current scenario, it becomes all in all more important to understand the perspective of students as they are easily accessible in terms of creating awareness and educating our society.

Keywords : *Solid Waste Management, Perspective, Student, Compost, Education*

INTRODUCTION

Solid waste management (SWM) is an important indicator for overall health of citizens and environment of the locality. In modern civil society, SWM has been a serious issue in economic development, environmental degradation and human health. One of the main reasons of solid waste generation beyond imagination is rapid urbanisation, industrialization, exponential increase in use of plastics, improved standard of living etc. SWM has no longer been an issue, limited to urban cities and clusters but also commercial and industrial areas, workplaces, offices, market yards, shops, hotels, hospitals, social organisations, agriculture sector, real estate sector are generating considerable amount of solid waste. Also due to the improved life style, generation of E-waste and concept of *use and*

throw, has added to the already monstrous issue of SWM. And last but not the least, increasing use of disposable items has added to the SWM challenge.

Mumbai's fast growth, with highest population density, and large size slums present innumerable challenges for the waste management of the city. The largest metropolis of India generates on an average 9000 tonnes of Municipal Solid Waste per day. Municipal Corporation of Greater Mumbai (MCGM) is the agency responsible for Solid Waste Management (SWM) in the city¹. As per the SWM Report 2018 by Maharashtra pollution control Board (MPCB) out of 7700 Metric Tonnes of waste generated per day 4407 metric tonnes of solid was treated or processed by the municipality, indicating that only 57.23 percent of solid waste is treated or processes². In 2019,

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as per MCGM, 6900 metric tonnes of waste generated was dumped to dumping ground everyday³.

A report by Mumbai Civic Body suggests that, out of the total waste dumped at the dumping ground, 73 percent is food waste. The report also suggest that only 5 percent of the waste collected is segregated at source. In all 75 percent of the total waste collected is wet waste. If nor segregated at the source this wet and organic waste mixes with dry waste like plastic, clothes and other debris material, further delaying the process of decomposition. Simultaneously many hazardous gas are generated and trapped inside the huge mountains of garbage at the dumping ground. These gases many times ignite, creating fire and thus creating a layer of smoke and smog in surrounding area of dumping ground

Considering the current scenario, it becomes all in all more important to understand the perspective of students as they are easily accessible in terms of creating awareness and educating our society.

LITERATURE SURVEY

While a fraction of the society is increasingly aware of waste segregation at source, a smaller fraction is implementing the practice with the help of authorities and NGOs.

Stree Mukti Sanghatana (SMS), a non-governmental organization, started the Parisar Vikas (PV) program to train informal recyclers as “*parisar bhaginis*,” or “neighborhood sisters.” The *bhaginis* are taught the principles of zero waste, how to sort and handle waste from multi-family dwellings, composting and biogas plant management, gardening, and how to organize as worker cooperatives and negotiate contracts⁴.

Mumbai city generates thousands of tonnes of waste every day. The main contributors to this waste are bio-degradable and mostly recyclable waste (almost 70 percent) and remaining 30 percent is debris generated from

different industry and construction site. Vegetable, flowers and other waste from *mandis*, left over food from house hold and hotels, kitchen waste, papers, cardboards, are biodegradable. Metals, newspapers, a very few grades of plastic batteries to some extent are recyclable materials⁵.

OBJECTIVE OF THE STUDY

To study the awareness among students about solid waste management.

To understand student’s perspective about, incorporating Solid waste management as a compulsory course/subject for the students at different academic level.

DATA COLLECTION

Data was collected with the help of questionnaire. Data of 154 respondents was recorded and processed for the research purpose.

FINDING

The students were asked to respond to certain question, the sole purpose was to understand the student’s perspective about the term Solid Waste Management in a holistic but very basic manner.

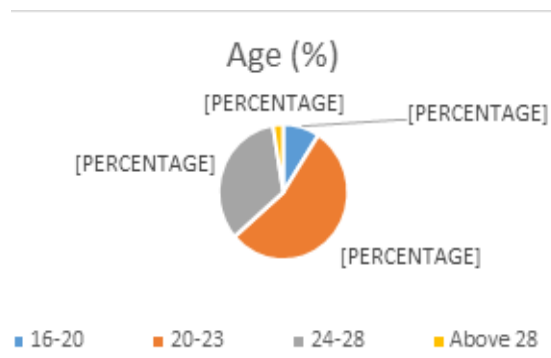


Chart 1

More than 50 percent of the respondents belong to the age category of 20 to 23 years. The Second largest respondents were from the age category of 24 to 28 years. Only 9 percent of the respondents were teenagers.

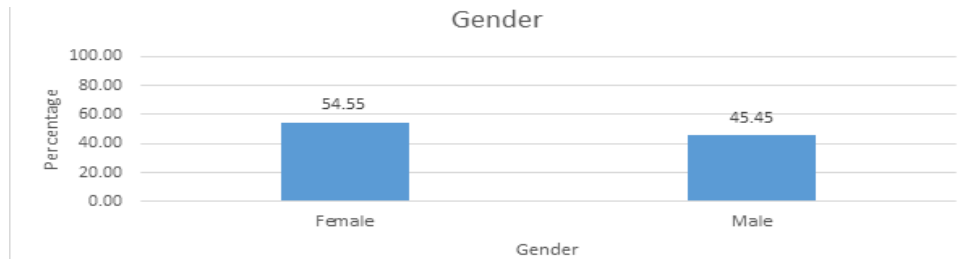


Chart 2

Among the total respondents, 55 percent were female and 45 percent male



Chart 3

80 percent of respondents were pursuing postgraduate education while 18 percent were pursuing education at graduation level



Chart 4

When the respondents were asked if they are aware of the term Solid waste management, 17 percent of the total respondents were not aware of the term solid waste management

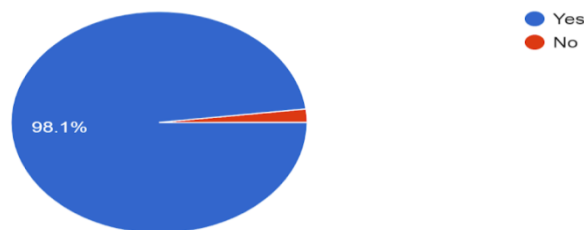


Chart 5

A minuscule population of 2 percent did not know that Household waste can be segregated into dry waste and wet waste



Chart 6

2 percent of the total respondents said that their locality does not have garbage bins or garbage truck facility and hence waste was disposed in open



Chart 7

When the respondents were asked if they segregate the household waste at the source, we understood that only 55 percent of the respondents segregate waste as dry waste and wet waste. A total of 45 percent either do not do it or seldom do it.

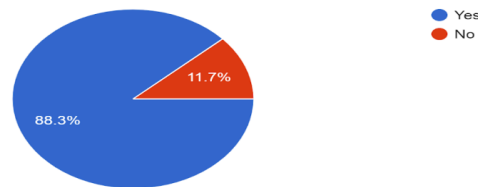


Chart 8

Around 88 percent of respondents were aware that household waste and kitchen wet waste can be converted into useful manure through composting but still 12 percent were unaware about this aspect of solid waste management, which if generalised can be a considerable number taking into account the total student population of Mumbai city.

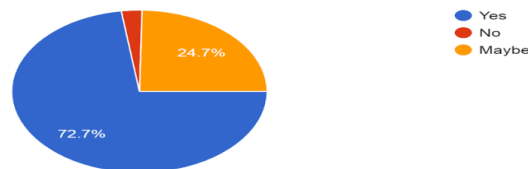


Chart 9

The respondents were asked if they would be interested in learning how to convert household and kitchen waste management into useful compost. 73 percent of respondents were affirmative towards learning composting. Regular programs and camps should be conducted in schools colleges Localities and societies, and students and society should be made aware of this process. These programs will help in changing societal attitude towards waste management and composting.

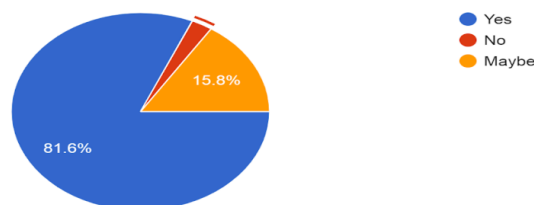


Chart 10

82 percent of the students were of the view that solid waste management should be taught in school colleges as a compulsory subject. This helps us to understand that students are motivated towards achieving the goal of *Green India Clean India*. Recommendation should be made to suggest universities to introduce Solid waste management as a mandatory part of student’s curriculum irrespective of the type and stream of education the student is undertaking.

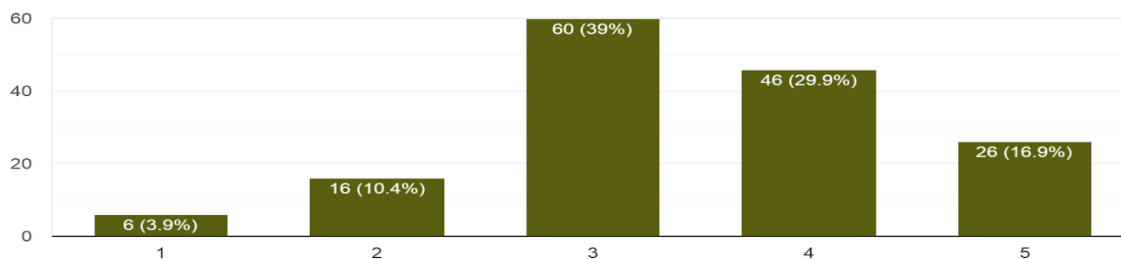


Chart 11

A general opinion of the respondent about the disposal of solid waste in the locality was taken, though 86 percent were satisfied, remaining 14 percent were not satisfied with the civic body regarding disposal of solid waste in their locality.

CONCLUSION

A through awareness about Solid waste management is the need of the hour. To address this issues it is very much necessary to understand and agree to the basic principal that Solid waste management is not the responsibility of the civic or local authorities only but of every member of the society.

On the similar lines it is recommended that civic authorities conduct regular programs and camps in schools, colleges, localities and societies, creating mass awareness among students and society. These programs will help in changing societal attitude towards waste management and composting.

Introduction of mandatory coursework of SWM and along with camps and programs in School Colleges, locality will help the concept of solid waste management to stay at the top of

mind of the students and society. If the student has a deep understanding of Solid waste management in addition to this concept being at top of his mind, long term success is assured in achieving SWACCHA BHARAT SUNDAR BHARAT

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