

Sustainable Domestic Waste Management in India

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Abstract— Waste and their management become a big challenge in front of the developed and developing countries. The current environment challenge associated waste generation and inadequate waste collection treatment. Waste management is of censorious concern and needs attention on it to reduce the impact of it on the environment. These waste are get classify in the different way on the basis of from which sector it is generated such as Industrial, Commercial or domestic level of waste, and again these are sub classified into wet, dry, solid etc. The current system of India is insufficient for the cope of the waste generated from all the sectors of the country. Therefore, India becomes a largest waste contributor in the world. India processed half of solid waste generated from the different sectors. And some of the solid wastes can be used again either by recycling or reusing. Therefore, inefficient in segregation and recycling of the waste generated by the different sector. Many startups are coming up with innovative ideas to manage waste. In this paper we will discuss about advance technology and segregation, dry and wet waste in domestic level to overbear the health or environmental impacts.

Index Terms— India, Waste, Environment, Domestic.

1. INTRODUCTION

As we know that, worldwide trade of India become growing and also growing in term of population so that, the major challenging issues of India is waste management, according to analysis India generate the waste 62 million tonnes including recyclable and non-recyclable in every year that means waste generated per person per day average 0.75 kilogram.

Initially there has been not much consciousness about the waste management. According to analysis from few years the scenario of domestic waste has been continuously increases, so that environment and health issues greatly increases. we want to grow our technology and techniques to overbear the waste according health and environment issues.

India used the sever method for manage of the waste the method for manage the waste through solid waste

management of India. Method used for management of waste is disposal of solid, thermal treatment, landfill, and integrated solid waste management. According to the many article or study there are not any technique and Technology in household level to overbear the waste. The main motto of that study compressive review of domestic waste and India has been provided to elaborated current status and to identify the problem of domestic waste management it also summarise the future trade to make the domestic with effective this paper is an attempt to review the best study and experience to draw insight into the dynamic and domestic waste generation India to understand existing management that in prevention policies and treatment option.

2. METHODOLOGY

2.1 Area of Interaction

Different methods of waste management waste management in India.

- a. Disposal of solid waste: In this method, waste arising from human house and Also increasing by animal activities generally it also generated from industrial, residential and commercial, the main purpose of this method collecting and treating solid waste.
- b. Thermal treatment: Solid waste thermal treatment is any waste treatment technology that involve high temperature is in the processing of waste feedstock. It involves the combustion of waste material for further conversion of energy.
- c. Dump and landfill of solid waste: Landfills site are use waste management purposes such as temporary storage consolidation and transfer from various stages of processing waste material such as sorting treatment for recycling.
- d. Integrated solid waste management: In this method main focus of the system is (3R) reduce, reuse and recycle. In that first is collection process

of waste, if that waste not properly segregated then it's treated according their process of segregation.

In that method, there are no are any method for household level for segregation purpose in that method having different stages of segregation of waste, In that method having more capital for future processing purpose.

2.2. Different types of domestic waste:

The domestic waste has been categories according organic and inorganic waste first organic waste.

1. Organic waste: Organic waste is biodegradable waste such that food, paper and cardboard etc.
2. Inorganic waste: Inorganic waste is nonbiodegradable waste such that plastic, soda, bottles, glass, caps, spoon, aluminium cons, plastic bags etc.

Domestic waste is managed by Municipal solid waste management system which collect the waste from the different areas and towns segregation is done by different of the waste management system.

2.3. Municipal solid waste scenario in India:

The population of urban area getting increased day by day, according demand of needs get increasing. Then use of organic and inorganic material get also increases. According to study the municipal solid waste to include in large Basis will look recent scenario of municipal solid waste according urban area or town.

City	Population (million)	Collection of household (%)	Segregation at source (%)
Mumbai	20.0	80	Nil
Delhi	19.1	39	2
Bengaluru	10.4	71	50
Chennai	10.0	80	Nil
Hyderabad	9.1	73	Nil
Ahmedabad	7.5	95	Nil
Surat	5.8	60	12
Pune	5.8	50	52
Indore	2.5	90	53
Bhopal	2.1	100	Nil
Ludhiana	1.7	25	Nil
Chandigarh	1.2	95	Nil
Mysuru	1	95	55

Table.1.

As according to recent Data household of waste get increases in daily basis.

3.RESULT OF ANALYSIS

last few year the scenario domestic waste management has been changing continuously lack of waste Federation is biggest obstacle in implementing effective solid waste management. urban India also grow (about 377 million people) and generate the 62 million tonnes of the Municipal solid waste each year of these about 43 million tonnes approx 70% is collected and 11.9 million tons approx 20% is treated. about 31 million turn that 50% is done in landfill sites. It is the responsibility of the urban local body to ensure the segregation of the waste at the source as per the municipal solid waste rule , this means the body must get the citizen to segregation of waste at household level and they ensure that the segregated waste wet and dry- Compostable and recyclable is collected separately and transported separately for processing. The main aim of analysis or study we should consciousness about our waste management system according to analysis of different article there are no any technique and technology of the segregation in household level, so that we have to develop the advanced technology which help to overbear environment and health issues.

4.DISCUSSION

The study or data related to the different methods and area accordingly waste management system so that consumption of domestic waste, method of disposal and segregation that impact on health. The level of education of waste management play a dominant role increasing the awareness about collection, transport, and treatment of the waste. In the term of the government which has taken the initiative in to improve the Waste Management services which is that "Swachh Bharat Abhiyan" its called clean India mission but, in this Abhiyan and mission does not deal with the household waste management system. if we look the many study or research, they have no any description about the waste management system in household level. Main focus of in that paper the waste management in term of household level according to the ratio of different type of waste in household level.

Sr	Waste type	Wt (%)	Remark
1	Garbage	81.7	Conventional unit
2	Paper	7.5	Office and packing
3	Plastic	4.8	Excluded steel plastic

4	Glass	1.6	Excluded house
5	Hair	1.00	Beauty salon
6	Rubber	0.08	Rubber house
7	Textile	0.06	Gament shop only

Table.2

According to the table and study and analysis we understand, higher generation waste from residential which causes the disease like salmonella, which causes typhoid fever, food poisoning, enteric fever, gastroenteritis, and other major illnesses. And another problem is that overflowing garbage is air pollution, which causes various respiratory diseases and other adverse effects as contaminants are absorbed from lungs into other parts of the body. Another one is waste collection staff the risks of picking up and handling overflowing garbage include infections, chronic diseases which course by Direct contact with waste can result in skin and blood infections. So that inefficient waste control is a bad for the health and environment issues. some another limitation of inefficient is that, smelly city with poor sanitation and trash all over the place does not attract the people and tourist then cities keep losing the money, so we need to the new technology and techniques which treat under the segregation of wet and dry waste likewise in the residential Complex and there is need to have separate two Bin for dry waste, which helps to manage the waste in scientific way treating domestic waste in good and reliable manner and public awareness and education is most important factor.

5.CONCUSSION

It can be concluded that due to the Rapid urbanisation and industrialisation and economic development and population growth the amount of waste production in the India has increasing extensively. solid waste management practice has been improving in the recent year the step towards improvement need to be accelerate in the term of the next techniques or Technologies to replacing the old ones that their need to raise the Societies awareness and change people mentality because of this is peck recruitment of developing on opportunity and sustainable waste management system. management system there is need most Social awareness about waste keeping separate Bin the best way to manage the domestic waste. So most of the researchers are working the project where they can remove the moisture content

from the waste in Household level to maintain the health and environment issues.

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