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RESEARCH ARTICLE

SOLID WASTE MANAGEMENT IN TAMIL NADU.

[*]V. Nathiya[1] and Dr. V. Thandapani[2].
1. Research Scholar, Department of Economics, Thiru.Vi.Ka.Govt. Arts College, Tiruvarur.
2. Assistant Professor, DEPARTMENT OF ECONOMICS, PRESIDENCY COLLEGE, CHENNAI.

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Abstract

The nearby study analyses the solid waste management in Tamil Nadu. Solid waste comprised all the wastes arising from human and animal activities that are normally solid and that are discarded useless or unwanted. The current study analyses the infrastructure provided by the government authority for managing solid waste and analyses the solid waste generation and its management by the surveyed respondents. solid waste can be classified into different types depending on their source; solid waste management is a major problems that has reached alarming properties requiring drastic measures. The increasing difficulty in managing wastes in different states in Tamil Nadu. On the basis of the results, it was recommended to increase public awareness through enlightenment campaign against danger of indiscriminate dumping of wastes as they affect human health.

Introduction:-

Waste is continually growing problem at global and regional as well as local levels. Solid waste arise from human and animal activities that are normally discarded as useless or unwanted. In other words, social wastes may be defined as the organic and inorganic waste materials produced by various activities of the first user. As the result of rapid increase in production and consumption, urban society rejects and generates solid material regularly which leads to considerable increase value of waste generated from several sources such as domestic wastes, commercial waste, institutional wastes and industrial waste of most diverse categories. Management of solid waste may be defined as that discipline associated with the control of generation, storage, collection, transfer and transport, processing and disposal of solid waste in a manner that is in accord with the best principles of public health, economics, engineering, conservation, aesthetics and other environmental consideration. Solid waste management is a term that is used to refers to the process of collecting and treating solid wastes. It also offers solutions for recycling items that do not belong to garbage or trash. As long as people have been living in settlement and residential areas, garbage or solid waste has been an issue. Due to increases public awareness of municipal solid waste management, a public litigation was field and resulted in the municipal solid waste. Government for the first time now has included private organizations in providing this public service.

Solid Waste Management

Management of solid waste is associated with the control of generation, storage, collection, transfer and transport, processing and disposal of solid wastes in a manner that is in accord with the best principles of public health, economics engineering, conservation, aesthetics and other environmental conservations in its scope, it includes all

Corresponding Author:- V. Nathiya.
Address:- Research Scholar, Department of Economics, Thiru.Vi.Ka.Govt. Arts College, Tiruvarur.

administrative, financial, legal planning, and engineering functions involved in the whole spectrum of solutions to problems of solid wastes thrust upon the community by its inhabitants.

Municipal Solid Waste

There has been a significant increases in the generation of municipal solid waste. In Tamil Nadu, over the last few decades. This is largely a result of rapid population growth in the country. The daily per capita generation of municipal solid waste in Tamil Nadu ranges from about 100g in small towns to 500g in large towns. The solid waste generated in Indian cities has increased from 6 million tones in 1947 to 48 million tones in 1997 and is expected to increase to 300 million per annum by 2047. The characteristics of municipal solid waste collected from any area depends an a number of factors such as food habits, cultural traditions of inhabitants, lifestyles, climate etc.

Review Of Literature

According to Ibrahim Adebayo, the people's perception and orientation about waste are studied, inefficient management and disposal of solid waste is an abrivouse cause of degradation of the environment in most of the cities of the developing world.

Viewed that Dhande and Ingle et, al, the waste generation is large in the high income group public. Further the physic chemical characterization of the waste was also studied. There are wide variations in magnitude of municipal solid waste management problem between cities with similar income levels.

Observed that Jha and singh et al, A well managed city with medium or low income maybe significantly different from a similar city with poor urban municipal solid waste management. Waste stream analysis, material balance and life cycle assessment may be helpful in sustainable landfill management.

Jha and sondhi studied the problem of waste management could be mitigated through adoption of improved method of collection and transportation and active community involvement. Scientific and environment friendly technology for disposing the waste will reduce quantity of waste to be finally dumped besides generating substantial amount of manure and energy. One of the main problems experienced by many developing nations in the lack of service provision. Particularly in low income areas. Because such conditions adversely affect the quality of life of the poor local stake holders.

Murad et al, conduced that participation in social and environment activities is necessary to resolve such socially undermining and environmentally degrading problems.

Objectives:-

1. To show the distribution of dustbin/ container for solid waste in Tamil Nadu.
2. To study the infrastructure provide by the government authority for managing solid waste.
3. To analyze the solid waste generation and its management by the surveyed respondents.
4. To show the status of solid waste in Tamil Nadu.

Major Issues Of Municipal Solid Waste Management

The ministry of environment and forests(MOEF) of the government India has issued management and handling rules in the year 2000 for scientific municipal solid waste management (MSWM) ensuring proper collection, segregation, transportation, processing, and disposal of MSW and to upgrade to the existing facilities to arrest contamination of soil and ground water.

As per provision, CPCB has been assigned to monitor the implementation of these rules and the municipalities will be required to submit annual reports regarding the status of MSW in their areas to the CPCB. These rules are applicable to every municipal authority in India. Which is responsible of MSWM.

In addition, there are municipal corporation acts in different states such as the Delhi corporation act 1959. Uttar Pradesh municipal corporation 1959. And Karnataka municipal corporation act 1976. The acts also deal with environment pollution caused by improper disposal of solid waste.

During the past two decades. India is facing a lot of problems in municipal solid waste management. The fact in most of the local bodies accounting to about4377municipalities and municipal corporation speed through out the

country. But mega cities or few other cities also maintain the collection and storage of waste in paper manner. The major focus of the study is to identify the average solid waste disposal at house hold level and the disposal method practiced in the study area. (Gidde et al, 2008).

Mode Of Disposal

Table 1:- Mode of solid waste disposal

Mode of disposal	Frequency	Percentage
Dumped in open space	64	88.9
Burnt	1	1.4
Any other methods	7	9.7
Total	72	100.0

For this study the mode of solid waste disposal with frequency and percentage was give in table1; Shows that 88.9% of the people dumped the household waste in open places. Commercial waste are dumped on to the road side. Only one respondent used to burn their domestic waste and around 10% of the household disposal through other method.

Table 2:- Recycling method adopted

Do you recycle the waste

Response	Frequency	Percentage
Yes	1	1.4
No	71	98.6
Total	72	100.0

Many of the responses in the study shows that domestic household waste cannot be reused. Only the commercial waste is reused by the government. But only one respondent said that they are recycling their domestic waste by converting into manure for their garden and the rest said that the simply dumped the common area/ bin.

Table 3:- Percentage of material composition in the domestic

Percentage of material composition in the domestic

Items	Frequency	Percentage
paper	48	66.6
Carry bags	16	22.2
Ball point Pens	2	2.8
Buckets	1	1.4
Fold clothes	1	1.4
Old clothes	1	1.4
Waste food	1	1.4
medicine	2	2.8
Total	72	100.0

This shows that various type of material is disposed as domestic waste. Among the samples, almost 67%of the respondents stated that waste paper occupies the major portion of waste from their households. Next to this level carry bags stands second with 22.2%, 1.4% of their waste comes from food waste, fold cloths, old cloths, respectively and only 2.8% their waste comes from medicine waste.

Table 4:- Domestic waste

Domestic waste(in kg)	Frequency	Percentage
1	31	43.1
2	41	56.9
Total	72	100.0

The table 4 shows the average disposal of household waste. Almost 57% of the respondents are disposing nearly 2kg on an awarage basis and 43% of the respondents dispose only 1 kg.

Table 5:- Agency involved in collecting the waste

Mode of collection	Frequency	Percentage
Municipality	61	84.7

Private	7	9.7
Others	4	5.6
Total	72	100.0

Shows that the various agencies involved in collecting the solid waste and garbage waste in the study area.

Among the samples, most of the respondents i,e, 85% of them said that waste is collected by the municipal worker, next to this people pay a private collector to collected the waste and only four respondents said that NGO's playing a vital role in collecting the solid waste and these NGO's convert the solid waste into wealth .

Table 6:- Regular of solid waste collection

Daily collection	**Frequency**	**Percentage**
Yes	31	43.1
No	41	56.9
Total	72	100.0

Infers the regular collection of solid waste by the municipal workers on daily basis. Around 43% of the respondents started that the municipal workers are collecting the waste daily and majority of the respondents are willing pay for the waste disposal.

Impact Of Improper Disposal Of Solid Waste

Large quantities of solid waste are subject to uncontrolled, unscientific and incomplete combustion which results in releases of a number of toxic gases into the atmosphere which causes an pollution and acid rain etc. Large quantities of chemicals, are quickly pushed into drains and rivers causing immense damage to human health. Dumping of agriculture solid waste and municipal solid waste will pollute soil, affect it's fertility and contaminate the ground water. Solid waste produces foul small, breeds insects and mosquitoes besides deteriorates the aesthetic value of land. Solid waste changes the properties of air, soil and water.

Conclusion:-

Solid waste management is one of the serious problems in Tamil Nadu and all over India and world in general. The Tamil Nadu accumulation of solid waste generation is about 51% per day, of these nearly 45% of the solid waste collected, transported and disposal daily which works to per capita generation of 250 g/day. Only one respondents in the sample is recycling their domestic waste for gardening and the rest of them were simply dumping in the open space. As the income level of the respondent increases the wage of plastic bags and paper also increase and it ends in the form of waste. Nearly 62% of the respondents are having the willingness to pay for clean environment.

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