# A Study on Public Awareness on Disposal And Recycling of Household Waste

**Dr. D.Sivasakthi[1], Dr.S.Gandhimathi[2]**
[1]Assistant Professor, Dept of B.Com (PA)
[2]Assistant Professor, Department of Commerce
[1, 2] Dr.N.G.P Arts & ScienceCollege (Autonomous) Coimbatore -641 048

***Abstract-*** *Solid waste comprising of garbage and rubbish (such as bottles, cans, clothing, compost, disposables, food packaging, food scraps, newspapers and magazines, and yard trimmings) that originates from private homes or apartments. It may also contain household hazardous waste. Also called as domestic waste or residential waste. Waste management or Waste disposal is all the activities and actions required to manage waste from its inception to its final disposal. This includes amongst other things, collection, transport, treatment and disposal of waste together with monitoring and regulation. It also encompasses the legal and regulatory framework that relates to waste management encompassing guidance on recycling etc. Waste management practices are not uniform among countries (developed and developing nations); regions (urban and rural area), and sectors (residential and industrial).*

*Management of solid waste has always been a serious problem for both developing and non developing countries. The quantity of waste is increasing at an alarming rate in India due to rapid urbanization and high population growth. This study analyses the waste collection, disposal and recycling practices. It examines the behaviours and perception of residents towards the waste management practices*

***Keywords***- Waste, Households, Disposal, Recycling….

## I. INTRODUCTION

The amount of waste generated by humans was insignificant due to low population density and low societal levels of the exploitation of natural resources. Common waste produced during pre-modern times was mainly ashes and human biodegradable waste, and these were released back into the ground locally, with minimum environmental impact. Tools made out of wood or metal were generally reused or passed down through the generations. However, some civilizations do seem to have been more profligate in their waste output than others.

The definition of recycling is to pass a substance through a system that enables that substance to be rescued. Waste recycling involves the collection of waste materials and the separation and clean up of those materials recycling waste means that fewer new products and consumables need to be produced, saving raw materials and reducing energy consumption. Recycling is processing used materials (waste) into new, useful products. This is done to reduce the use of raw materials that would have been used. Recycling also uses less energy and great way of controlling air, water and land pollution.

Effective recycling starts with household waste. In many countries, the authorities help household with bin bags with labels on them. Households then sort out the waste themselves and place them in the right bag for collection which makes the work less difficult. Waste normally relates to all kinds of waste, whether generated during the extraction of raw materials, the processing of raw materials into intermediate and final products or other human activities including municipal, agricultural, household and other waste. Waste management intended to reduce adverse effect of waste on health, environment or aesthetics.

## II. STATEMENT OF PROBLEM

Man is behind every development Endeavour. The large scale production and improper disposal of waste has become a source of pollution and further accumulation of garbage has resulted in serious deterioration in quality of life and the ecological balance. Many diseases like cholera and gastro-enteritis have been reported due to lack of proper collection and disposal of solid waste, insanitary condition and unsafe drinking water (Marudachalam, 1990). An emphasis need to be given on the need of systematic waste management, cost effective methods, environmentally and procedurally safe and acceptable at low maintenance level. Therefore, the objectives of the study were:

- To examine the problems of household waste.
- To study level of awareness regarding household waste utilization.

## III. SCOPE OF THE STUDY

This study will review about the household waste management service provided through trash haulers, transfer stations, recycling facilities, trash to energy facilities, solid waste landfills and ash landfills, in order to assess whether the services are adequate, available at reasonable cost, sustainable and compatible with the policies and goals. It will also explore alternatives to the state's current disposal techniques and the potential use of the recycled products. Investigate quantity and quality of current waste generation and recycling behaviour. Investigate the effect of different information strategies in relation to recycling behaviour of solid household waste.

## IV. OBJECTIVES OF THE STUDY

- To understand the waste management system and to ensure that it is safe and effective.
- To understand the population pressure on waste generation and the amount of waste generated.
- To devise a system for effective and efficient method of household waste disposal.
- To minimize waste generation and to maximize reuse, recycling and material recovery.

## V. RESEARCH METHODOLOGY

### ➢ DATA COLLECTION METHODS:

Data was collected by primary as well as secondary method. Primary data was collected through questionnaire and interview schedule with the people from Parsn Sesh Nestle, Coimbatore, while secondary data were collected from the research papers, articles, internet search.

### ➢ SAMPLING TECHNIQUE:

To select the sample for the purpose of research a non- probability sampling technique (Convenience) was used on a Sample size of 120 people.

### ➢ TOOLS FOR ANALYSIS:

- ✓ Likert scale analysis
- ✓ Rank analysis

### LIMITATIONS OF THE STUDY:

- ✓ This process is not always cost efficient.
- ✓ It can create more environmental and health problems if not done in the right way.
- ✓ Recycling does not guarantee good quality product.

## VI. ANALYSIS AND INTERPRETATION

### ➢ LIKERT SCALE

A Likert scale is a method of measuring attitudes, ordinal scale of responses to a question or statement, ordered in hierarchical sequence from strongly negative to strongly positive. Used mainly in behavioural science and psychiatry. In Likert's scale method, A person's attitude is measured by combining (adding or averaging) their responses across all items.

**Formula:**

**Likert scale = ∑ (fx) / Total number of respondents**

f = Number of respondents
x = Likert scale value
∑ (fx) = Total score

**Mid value:**

Mid-value indicates the middle most value of the likert scale.

**TABLE - 1**
**RESPONDENTS BY OPINION ABOUT HOUSEHOLD WASTE DISPOSAL AND RECYCLING TECHNIQUES**

| FACTORS | NO.OF RESPONDENTS | LIKERT SCALE | TOTAL SCORE |
|---|---|---|---|
| EXCELLENT | 18 | 5 | 90 |
| VERY GOOD | 24 | 4 | 96 |
| GOOD | 57 | 3 | 171 |
| POOR | 13 | 2 | 26 |
| VERY POOR | 8 | 1 | 8 |
| TOTAL | 120 | 15 | 391 |

(SOURCE: PRIMARY DATA)

**FORMULA:**

**Likert scale = ∑ (fx) / Total number of respondents**
= 391/120
= 3.26

**INTERPRETATION:**

Likert scale value is 3.26 is greater than the mid value (3). So the respondents are satisfied.

**TABLE - 2**
**RESPONDENTS BY LEVEL OF SATISFACTION ON HOUSEHOLD WASTE DISPOSAL METHODOLOGY**

| FACTORS | NO. OF. RESPONDENTS | LIKERT SCALE | TOTAL SCORE (fx) |
|---|---|---|---|
| HIGHLY SATISFIED | 60 | 5 | 300 |
| SATISFIED | 47 | 4 | 188 |
| MODERATE | 9 | 3 | 27 |
| DISSATISFIED | 3 | 2 | 6 |
| HIGHLY DISSATISFIED | 1 | 1 | 1 |
| **TOTAL** | 120 | 15 | 522 |

**(SOURCE: PRIMARY DATA)**

**FORMULA:**

**Likert scale** = ∑ **(fx) / Total number of respondents**
= 522/120
= 4.35

**INTERPRETATION:**

Likert scale value is 4.35 is greater than the mid value (3). So the respondents are satisfied.

**TABLE - 3**
**RESPONDENTS BY LEVEL OF SATISFACTION ON HOUSEHOLD WASTECOLLECTION TECHNIQUES**

| FACTORS | NO. OF. RESPONDENTS | LIKERT SCALE | TOTAL SCORE (fx) |
|---|---|---|---|
| HIGHLY SATISFIED | 30 | 5 | 150 |
| SATISFIED | 63 | 4 | 252 |
| MODERATE | 21 | 3 | 63 |
| DISSATISFIED | 3 | 2 | 6 |
| HIGHLY DISSATISFIED | 3 | 1 | 3 |
| **TOTAL** | 120 | 15 | 474 |

**(SOURCE: PRIMARY DATA)**

**FORMULA:**
**Likert scale** = ∑ **(fx) / Total number of respondents**
= 474/120
= 3.95

**INTERPRETATION:**

Likert scale value is 3.95 is greater than the mid value (3). So the respondents are satisfied.

**TABLE - 4**
**RESPONDENTS BY LEVEL OF SATISFACTION ON HOUSEHOLD WASTE RECYCLING METHODS**

| FACTORS | NO. OF. RESPONDENTS | LIKERT SCALE | TOTAL SCORE (fx) |
|---|---|---|---|
| HIGHLY SATISFIED | 34 | 5 | 170 |
| SATISFIED | 33 | 4 | 132 |
| MODERATE | 38 | 3 | 114 |
| DISSATISFIED | 6 | 2 | 12 |
| HIGHLY DISSATISFIED | 9 | 1 | 9 |
| **TOTAL** | 120 | 15 | 437 |

**(SOURCE: PRIMARY DATA)**

**FORMULA:**

**Likert scale** = ∑ **(fx) / Total number of respondents**
= 437/120
= 3.64

**INTERPRETATION:**

Likert scale value is 3.64 is greater than the mid value (3). So the respondents are satisfied.

**TABLE - 5**
**RESPONDENTS BY LEVEL OF SATISFACTION ON USAGE OF RECYCLED PRODUCTS**

| FACTORS | NO. OF. RESPONDENTS | LIKERT SCALE | TOTAL SCORE (fx) |
|---|---|---|---|
| HIGHLY SATISFIED | 13 | 5 | 65 |
| SATISFIED | 32 | 4 | 128 |
| MODERATE | 39 | 3 | 117 |
| DISSATISFIED | 24 | 2 | 48 |
| HIGHLY DISSATISFIED | 12 | 1 | 12 |
| **TOTAL** | 120 | 15 | 370 |

**(SOURCE: PRIMARY DATA)**

**FORMULA:**

**Likert scale** = ∑ **(fx) / Total number of respondents**
= 370/120
= 3.08

**INTERPRETATION:**

Likert scale value is 3.08 is greater than the mid value (3). So the respondents are satisfied.

**RANK ANALYSIS:**

The Karl pearson's method is based on the assumption the population being studied is normal or when the shape of the distraction is not known,there is need for a measure of correlation that is need for correclation that involves no assumptions above the parameter of population

It is possible to avoid making any assumptions above the population being studied by ranking the observation according to size and basing the calculation on the ranks rather than upon the originate observations. It does not matter in which way the items are ranked, items number one may be the largest or it may be smallest using rather than actual observation gives the coefficient rank correlation.

**TABLE -6**
**RESPONDENTS BY THEIR BASIS OF OPINION**

| FACTORS | R1 | R2 | R3 | TOTAL | FINAL RANK |
|---|---|---|---|---|---|
| DISPOSING TECHNIQUES ADOPTED | 59(3) | 42(2) | 19(1) | 280 | I |
| WASTE COLLECTION METHODS | 47(3) | 64(2) | 9(1) | 278 | II |
| RECYCLING TECHNIQUES | 14(3) | 14(2) | 92(1) | 182 | III |

(SOURCE: PRIMARY DATA)

**INTERPRETATION:**

The table shows that household waste disposing techniques adopted is ranked first, household waste collection methods is ranked second and household waste recycling techniques is ranked as third.

**FINDINGS:**

**LIKERT SCALE ANALYSIS**

- The likert scale values are greater than the mid-value. The respondents are hence satisfied with the household waste disposal and recycling.

**RANK ANALYSIS**

- The household waste disposal techniques are ranked first by the respondents.

**SUGGESTIONS:**

Respondents are aware of the methodologies of household waste disposal and recycling techniques but they are not segregating the waste properly for the purpose of disposal and recycling techniques. Respondents also agree that most of the vegetable waste is being recycled at their house and they suggested on improvising of the recycling methodologies. They suggested that assisted collection of these waste for disposal should be carried out promptly for safe disposal of these waste.

## VII. CONCLUSION

This study is based on the evaluating the depth of household waste disposal and recycling and level of public awareness to such methodologies. Various new steps are being taken for the suggestions stated by the respondents. It was evaluated and certain suggestions were made to overcome such methodologies. This study is also based on the quantity of waste increasing due to rapid growth of urbanization and high population growth. From this study it is also concluded that the waste collection methods are very effective and the behaviour and perception of the residents towards the waste management practices are further being improvised.

## REFERENCES

[1] Marketing management- Philip Kotler
[2] Research methodology, second edition 2003- Gopal Lal Jain
[3] Marketing seventh edition 1993- Dr. N. Rajan Nair, Sanjith R.Nair
[4] http://google.co.in/search?http://www.mondaq.com/india/x/396342/waste+management/waste+management+in+india+an+overview
[5] http://google.co.in/search?q=waste+management+household
[6] http://google.co.in/search?q=household+waste+recycling