IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 7, May 2024

Waste Management Practices among Households and Environmental Sustainability in Attappady

Sheeba S[1] and Anil Kumar C[2]
Assistant Professor on Contract
Government Arts and Science College, Chelakkara, India[1]
College of Applied Science, Agali, India[2]

Abstract: *Arising quality of life and high rate of resource consumption patterns have had an unintended and negative impact on the urban environment and generation of wastes far beyond the handling capacities of urban governments and agencies. Cities are now grappling with the problems of high volumes of waste, the costs involved, the disposal technologies and methodologies, and the impact of wastes on the local and global environment. Waste management or waste disposal is all the activities and action required to manage waste from its inception to its final disposal. Waste management includes radioactive substance solid, liquid. These waste management with different methods and expertise for each type of waste. It also means the administration of activities that provide for the collection, source of separation, storage transportation, transfer, processing, treatment and disposal of waste. It includes the action to reduce waste through material efficiency, waste reduction and the recovery reusing of discarded materials*

Keywords: Waste, Management, Practices, Techniques and Government initiatives

I. INTRODUCTION

Attappadi, a sprawling stretch of hills and valleys at border of Tamil Nadu and Kerala is a perpetual source of fascination for vibrant travellers. With mooring clouds, contemplating hills, turbulent wild virgin rivers, meandering glowing streams, climate, brooding vast valleys, covertly deep forest, exotic flora, and fauna, herds of wild animals the land is an "an open sesame" to the exuberant treasure of nature. Archaic tribal clans with their innocent aboriginal dwellings, rites, and rituals, fetes, etc soothe the yearning curiosities. The study aims to evaluate effectiveness of waste management refers in Attappadi Block Panchayath. The benefits of waste management with the deteriorating earth state that we live in nowadays; waste management appears to be one of the most important environmental protection strategies. This practice has in fact several benefits both on the environment and the society. In particular, the main benefits of waste management environmental protection and pollution reduction and resource conservation and economic benefits and enabling a circular economy.

1.1 STATEMENT OF THE PROBLEM

Waste management consider as all types of activities and action required to manage waste from its inception to its last level of disposal. Now the day's waste management becomes a headache to all authorities. Waste management conveys the management of various activities like collection of waste, separation of waste items, storage of it and its transportation, transfer, processing of its treatment and disposal of waste items collected. It includes the action to reduce waste through materials efficiency, waste reduction and the recovery reusing of discarded materials. Waste management is the need of the hour, looking at the soaring volume of waste generation with increasing population and economies in modern society. It is essential to protect the environment, public health, and quality of life. So, the waste management practices are important to our society. Attappady is a tribal development block located on the eastern sloping plateau in the western Ghats, in Mannarkad taluk of Palakkad district. In this background the present study conducted to analyze the waste management practices of households among Attappady has much relevant.

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1.2 OBJECTIVES OF THE STUDY

- To study the various waste management practices of households in Attappady Block Panchayat.
- To analyze the effectiveness of waste management practices.
- Make households understand about the waste management schemes implemented by the government.
- To suggest measures effectiveness of waste management practices in households.

II. RESEARCH METHODOLOGY

Research methodology is a way of explaining how a researcher intends to carry out the research. It's a logical, systematic plan to resolve a research problem. The study was both descriptive and analytical in nature. Both primary and secondary data used for the purpose of the study. The primary data those which is collected directly from field. The primary data were collected from 50 households Attappady block panchayath by administrating questionnaire. Secondary data existing information they are collected from books, journals, magazines, and websites. The area study covers Attappady block panchayat..Convenience sampling method was used to for selecting sampling from universe. The size of the sample consists of 50 respondents from Attappady block panchayat. Simple percentage analysis was used for analyzing primary data.

III. REVIEW OF LITERATURE

According to VassilisJ2015, this study conveys about a waste method of household hazardous waste (HHW) presenting overall information. This review conveys that in legislation the hazardous waste generated within the household is not clearly defined, so there is an absence of proper acts controlling the management of HHW. The lack of proper acts to separate HHW from the house waste and the different uses of terminology make it difficult to determine the quantities and the generation amount is relatively small. According to Dr. Jigna Trivedi and Dr. Bindiya Kunal Soni— in developed and developing countries management of solid waste has always been a serious Problem. Due to rapid urbanization and high population growth, the quantity of waste is increasing at an alarming rate in India. Solid waste can be defined as non-gas products and no liquid human activities are regarded as being useless.

IV. THEORETICAL FRAMEWORK

Waste management practices differ for developed and developing nations, for urban and rural areas, and for residential and industrial producers. Poor management of waste and treatment and effluent disposal system, result, in potential public health risk. Variable factors including prevailing and seasonal weather conditions, topography, separation distance from residents and public facilities, the quantity concentration and the types of effluent and the nature of the receiving water environment are factors that are to be assesses when designing. No nuisance or danger to public health and safety is to be caused by waste and effluent disposal system

V. DATA ANALYSIS AND INTERPRETATION

TABLE NO 1: TYPE OF WASTE MOSTLY GENERATED IN YOUR HOME

SL.NO	ATTRIBUTES	NO. OF RESPONDENTS	PERCENTAGE
1	Plastics	30	60
2	Clothing materials	2	4
3	Bottlers/cans	1	2
4	Food waste	11	22
5	Paper	5	10
6	Electronic waste	1	2
7	TOTAL	50	100

(Source: primary data)

Plastics constitute the highest percentage of waste generated by respondents, accounting for 60% of the total. Meanwhile, bottlers/cans and electronic waste represent the lowest percentage, each comprising only 2% of the total waste generated.

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TABLE NO.2: AWARENESS ABOUT WASTE MANAGEMENT PRACTICES

SL.NO	ATTRIBUTES	NO. OF RESPONDENTS	PERCENTAGE
1	Yes	40	80
2	No	10	20
3	TOTAL	50	100

(Source: Primary data)

This data shows responses to a question, where 80% of respondents answered "Yes" and 20% answered "No." It's clear that most respondents replied affirmatively, while a smaller portion responded negatively

TABLE NO.3: DISPOSAL OF HOUSEHOLD WASTE

SL.NO	ATTRIBUTES	NO. OF RESPONDENTS	PERCENTAGE
1	In the dustbin	7	14
2	By the side of the road	1	2
3	In an empty space near the house	3	6
4	Waste collectedHaritha karmasena	34	68
5	The door-to-door waste collection	4	8
6	By the side of the river/in the river	0	0
7	Others	1	2
8	TOTAL	50	100

(Source: Primary data)

The table reveals that 14% of the respondents are in the dustbin, 2% of therespondents are by the side of the road, 6% of the respondents are in an empty space near the house, 68% of the respondents are waste collected by Harithakarmasena, 8% of the respondents are the door-to-door waste collection, 0% ofrespondents are by the side of the river/in the river and 2% of the respondents are others.

TABLE NO.4.: WASTE MANAGEMENT PRACTICES AT HOME

SL.NO	ATTRIBUTES	NO. OF RESPONDENTS	PERCENTAGE
1	Collection	29	58
2	Separation	6	12
3	Disposal	7	14
4	Recycling	1	2
5	Composting	3	6
6	Others	4	8
7	TOTAL	50	100

(Source: Primary data)

The analysis shows that 58% of the respondents are collection, 12% of therespondents are separation, 14% of the respondents are disposal,

TABLE NO.5: DISPOSAL OF FOOD AND VEGETABLES

SL.NO	ATTRIBUTES	NO. OF RESPONDENTS	PERCENTAGE
1	Agricultural land	16	32
2	Using compost	3	6
3	Give to animals/birds	14	28
4	Collected by panchayath	14	28
5	Throw public places	1	2
6	Others	2	4
7	TOTAL	50	100

(source: Primary data)

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32% of the respondents are agricultural land, 6% of the respondents are using compost, 28% of the respondents are give to animals/birds, 28% of the respondents are collected by panchayath, 2% of the respondents are throw publicplaces and 4% of the respondents are others.

TABLE NO.6: DISPOSAL OF NON-DEGRADABLE WASTE

SL.NO	ATTRIBUTES	NO. OF RESPONDENTS	PERCENTAGE
1	Collected at home	6	12
2	Collected by panchayath	39	78
3	Sanitation/burning	3	6
4	Recycling	2	4
5	Others	0	0
6	TOTAL	50	100

(Source: Primary data)

The above column analysis shows the perception of respondent's disposal of non- degradable waste, 12% of the respondents are collected at home, 78% of the respondents are collected by panchayath, 6% of the respondents are sanitation/burning, 4% of the respondents are recycling and 0% of the respondents are others.

TABLE NO.7: AWARENESS OF WASTE MANAGEMENT PRACTICES INTENDED BY ATTAPPADY BLOCK PANCHAYATH

SL.NO	ATTRIBUTES	NO. OF RESPONDENTS	PERCENTAGE
1	Yes	43	86
2	No	7	14
3	TOTAL	50	100

(Source: Primary data)

The data shows that in Attappady Block Panchayath, 86% of respondents are aware of waste management practices, while 14% are not. This indicates a significant level of understanding and readiness for implementing waste management initiatives in the community, which is crucial for maintaining a cleanand sustainable environment. With such high awareness, efforts to improve wastemanagement practices are likely to be well-received and effective in the area.

TABLE NO. 8: WASTE COLLECTED BY HARITHA KARMASENA

SL. NO	ATTRIBUTES	NO. OF RESPONDENTS	PERCENTAGE
1	Yes	40	80
2	No	10	20
3	TOTAL	50	100

(source: Primary data)

From the above, 80% of the respondents are yes and 20% of the respondents are no

VI. FINDINGS

As per the analysis Plastics constitute the highest percentage of waste generated in households and electronic waste represent the lowest generation. Households are aware about waste management practices adopted by attappady block panchayath. They depends Haritha karma sena for collecting wastes.House holds collect wastes in to separate form and degradable and vegetable wastes put in to land and degradable wastes collected by Panchayath Activities of Haritha karma Sena founded as well.

VII. SUGGESTIONS

- Avoid single-use food and drink containers and utensils
- Shop local farmers markets and buy in bulk to reduce packaging
- Proper Segregating and Minimizing Waste
- Implement Sustainable Waste Container

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VIII. CONCLUSION

Waste management refers to the various schemes to manage and dispose of wastes. It can be by discarding, destroying, processing, recycling, reusing, or controlling wastes. The prime objective of waste management is to reduce the amount of unusable materials and to avert potential health and environmental hazards. Thus, other means are encouraged, such as recycling, reprocessing, and re-use. Organic wastes, especially those that are biodegradable, are allowed to be decomposed so that they can be used as mulch or compost in agriculture and the methane gas from the biological degradation be collected and used for generating electricity and heat. Liquid wastes, such as waste water, undergo treatment producing sewage sludge that can be disposed of by incineration, composting, and landfill.

REFERENCES

[1]. Barlaz, M., R. Green, J. Chanton, R.D. Goldsmith, and G. Hater, 2004: Evaluation of a biologically-active cover for mitigation of landfill gas emissions. Environmental Science and Technology, 38(18), pp. 4891-4899.

[2]. Ackerman, F., 2000: Waste Management and Climate Change. Local Environment, 5(2), pp. 223-229.

[3]. Adams, W. M., (2009). *Green Development: Environment and Sustainability in a Developing World*, 3rd Ed, Routledge Publication.

[4]. Bandara, N.J.G.J. and Hettiaratchi, J.P.A., (2010). *Environmental impacts with waste disposal practices in a suburban municipality in Sri Lanka* ,Inderscience Publishers.

[5]. Fredenslund, A.M., C. Scheutz, and P. Kjeldsen, 2005: Disposal of refrigerators-freezers in the U.S.: State of Practice. Report by Environment and Resources. Technical University of Denmark (DTU). Lyngby