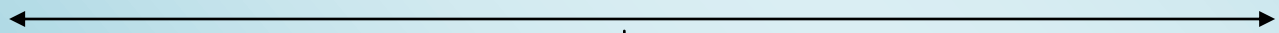


North Asian International Research Journal Consortium

*North Asian International Research Journal of
Social Science & Humanities*

Chief Editor

Dr Rama Singh



Publisher

Dr. Bilal Ahmad Malik

Associate Editor

Dr. Nagendra Mani Trapathi

Honorary

Dr. Ashak Hussain Malik

NAIRJC JOURNAL PUBLICATION

North Asian
International
Research Journal Consortium



Welcome to NAIRJC

ISSN NO: 2454 - 9827

North Asian International Research Journal Social Science and Humanities is a research journal, published monthly in English, Hindi, Urdu all research papers submitted to the journal will be double-blind peer reviewed referred by members of the editorial board. Readers will include investigator in Universities, Research Institutes Government and Industry with research interest in the general subjects

Editorial Board

J.Anil Kumar Head Geography University of Thirvanathpuram	Sanjuket Das Head Economics Samplpur University	Adgaonkar Ganesh Dept. of Commerce B.S.A.U, Aruganbad
Kiran Mishra Dept. of English,Ranchi University, Jharkhand	Somanath Reddy Dept. of Social Work, Gulbarga University.	Rajpal Choudhary Dept. Govt. Engg. College Bikaner Rajasthan
R.D. Sharma Head Commerce & Management Jammu University	R.P. Pandday Head Education Dr. C.V.Raman University	Moinuddin Khan Dept. of Botany SinghaniyaUniversity Rajasthan.
Manish Mishra Dept. of Engg, United College Ald.UPTU Lucknow	K.M Bhandarkar Praful Patel College of Education, Gondia	Ravi Kumar Pandey Director, H.I.M.T, Allahabad
Tihar Pandit Dept. of Environmental Science, University of Kashmir.	Simnani Dept. of Political Science, Govt. Degree College Pulwama, University of Kashmir.	Ashok D. Wagh Head PG. Dept. of Accountancy, B.N.N.College, Bhiwandi, Thane, Maharashtra.
Neelam Yaday Head Exam. Mat.K..M .Patel College Thakurli (E), Thane, Maharashtra	Nisar Hussain Dept. of Medicine A.I. Medical College (U.P) Kanpur University	M.C.P. Singh Head Information Technology Dr C.V. Rama University
Ashak Hussain Head Pol-Science G.B, PG College Ald. Kanpur University	Khagendra Nath Sethi Head Dept. of History Sambalpur University.	Rama Singh Dept. of Political Science A.K.D College, Ald.University of Allahabad

Address: - Dr. Ashak Hussain Malik House No. 221 Gangoo, Pulwama, Jammu and Kashmir, India - 192301, Cell: 09086405302, 09906662570, Ph. No: 01933-212815, Email: nairjc5@gmail.com , nairjc@nairjc.com , info@nairjc.com Website: www.nairjc.com

GARBAGE CONDITION IN RURAL AREAS

*SMT. SOWMYA L.K**

PhD Research Scholar

DR.MAMATHA.B

Research Guide, Associate Professor, Smt.V.H.D. Central Institute of Home Science, Bangalore.

H.S.SURENDRA

Statistician, University of Agricultural Science, Bangalore.

ABSTRACT:

Garbage disposal constitutes a huge challenge for local governments due to its constant increase and the majority of the municipalities do not keep records on waste generation, origin and characteristics. Waste is any material/liquid that is thrown away as unwanted. As per physical properties, waste can be categorized as: Solid waste: a) Bio-degradable b) Non-biodegradable and Liquid waste.

Human beings produce a variety of waste, which can be classified into two groups: organic and inorganic. Organic waste is biodegradable and generally decomposes fairly rapidly, while inorganic waste decomposes much more slowly. Both types of waste have to be handled and disposed of properly to minimize negative health and environmental impact.

Hence the study aimed at collecting information on disposal of waste in selected rural areas Lakshmisagar, Thonnur and Mahadevapura in Mandya district with objectives like a) to know the type of waste generated in rural area, to know about segregation of waste at household level, c) To assess the conditions of surrounding areas and d) To gain suggestions for effective disposal of garbage to find out the method and frequency of disposal of waste and to create awareness on effective disposal of solid waste.

Survey method and questionnaire was the tool used for collecting information. The major findings of the present study were that the major portion of the waste generate in rural household were vegetable waste and animal waste followed by garden and agricultural waste. Higher percentage of the respondents disposed the waste in a ditch everyday followed by open space, open drainage and public bins. Most of the respondents agreed that source segregation of waste and separate bins for different types of waste were the effective method of disposal of waste. By adopting effective method of disposal of waste we can reduce environmental pollution thereby protecting our mother earth.

INTRODUCTION

Solid waste constitutes a huge challenge for local governments due to its constant increase and the majority of the municipalities do not keep records on waste generation origin and characteristics. Waste is any material/liquid that is thrown away as unwanted. As per physical properties, waste can be categorized as: Solid waste: a) Bio-degradable b) Non-biodegradable) Liquid waste.

Human beings produce a variety of waste, which can be classified into two groups: organic and inorganic. Organic waste is biodegradable and generally decomposes fairly rapidly, while inorganic waste decomposes much more slowly. Both types of waste have to be handled and disposed of properly to minimize negative health and environmental impact.

Every household should practice waste reduction, reuse and recycling. Household waste should be separated into organic and inorganic waste. The organic waste should be buried in a compost pit, placed on a round circle or fed to the animals. The organic waste can be reused, recycled or taken to the village waste dump.

According to Oke and Awofeso, in appropriate waste disposal by subjects is seen to come about as result of environmental, physiological, mental and biological issues which result in stress reaction and impaired well being, physiological regulation and disease.

As cited in UNICEF report of India, especially in rural areas, waste is a severe threat to the public health concern and cleanliness. Though, the form of waste generated in rural areas is predominantly organic and biodegradable yet becoming a major problem to over all sustainability of the ecological balance.

In the absence of proper disposal of solid and liquid waste, they are leading to vector born diseases such as diarrhoea, malaria, polio, dengue, cholera, typhoid, and other water borne infection. Nagavallema KP. Etal

Lovai, Narua etal (2006), the general poor state of cleanliness of the village and the continued use of over the sea drop toilets are clear indications that the majority of the people of Baraka are not convinced about the negative health and environmental impacts of improper waste disposal. In addition, although local regulations relating to waste disposal exist, they are simply not being enforced. The mere location of houses over the sea also encourages people to simply discard their waste into the sea. The absence of collection and disposal system is another contributing factor.

In order to improve the situation, the people must make a n effort to dispose of various types of waste in a responsible manner. The existing regulation should be reviewed and amended to improve monitoring and enforcement. A common dumpsite needs to be established, accompanied by a feasible collection and disposal system. Land-based pit latrines should be encouraged and construction of over the sea residences should be stopped immediately. Allocation of land for residences and long term village planning taking into consideration population growth and provision of water and sanitation services will have to be seriously and urgently addressed by the community.

Paul.M.Jakus, Kelly H,Tiller, William M. Park (1997) cites that the rising landfill costs have forced solid waste managers to consider waste stream reduction alternatives such household recycling. Explaining the factors which motivate households to recycle is important to regions where households must bear a large portion of the recycling cost because unit-based garbage disposal fees and curb side recycling are not feasible options. Empirical results indicate that residents are responsive to constraints introduced by the household production technology. Such as time costs and storage space, but are not responsive to variables measuring a recycling promotional program. Promotion efforts should switch focus from broader public good benefits of recycling to reducing house old-level household production constraints

The nation should witness the greater roles of wastes management companies and waste management consultants. It is also hoped that this upcoming thrust are seeking different levels of human resource will be a source of employment. The voluntary organizations across the nation should rise up to the accession and play their due role in awareness creation, motivation and implementations of waste management. Hence this study was taken to create awareness on disposal of waste in rural areas.

According to Paul Taboada-Gonzalez et.al (2010) globally there is a lack of knowledge about waste generation and composition in rural areas because these types of studies have been conducted mainly in big cities. This leaves the local sanitation authorities without information to properly plan its operations. Generally, characterization studies are carried out by using the techniques of sampling taking at home level, This method requires human, material and economic resources that sometimes are limited for local sanitation authorities. This paper presents the results of a characterization study obtained by direct analysis of household solid waste generated in two rural communities in northern Mexico. The research also outlines a procedure for estimating the waste generation rate then financial constraints prevents the development of a characterization study at home level.

Environmental degradation is a major threat confronting the world, and the rampant use of chemical fertilizers contributes largely to the deterioration of the environment through depletion of fossil fuels, generation of carbon dioxide and contamination of water resources. It leads to loss of soil fertility due to imbalanced use of fertilizers that has adversely impacted agricultural productivity and causes soil degradation. Now there is a growing realization that the adoption of ecological and sustainable farming practices can only reverse the declining trend in the global productivity and environmental protection.

AIMS:

The aim of the present study is to the create awareness about the disposal of waste in rural areas.

OBJECTIVES:

- a) To find out the different types of waste generated in rural households,
- b) To know about segregation of waste at household level.
- c) To assess the conditions of surrounding areas and
- d) To gain suggestions for effective disposal of garbage.

METHODOLOGY:

The sample was limited to 50 homemakers belonging to 3 villages of Mandya district that is Lakshmisagar, Tonur and Mahadevapura. Survey method and questionnaire was the tool used to gather information on awareness on disposal of waste in rural areas. The samples were selected through simple random sampling technique. A pilot study was conducted to assess the feasibility of the questionnaire. The modified questionnaire was used for main study, the questionnaire consist of question related to background information of the respondents, problems and Degree of Seriousness in Village, waste generated in the house, Method of disposal

and frequency, condition of surrounding areas, Contributory factors for Deterioration of Waste management and suggestion for effective disposal of waste.

MAJOR FINDINGS:

The background information revealed that most of the respondents were in the age group of 21 to 40 years. Higher percentage of the respondents belonged to nuclear family with family size of more than seven members with the family income ranged from Rs 3000 to 8000 per month. Most of the respondents lived in own house with tiled roof.

RESULTS AND DISCUSSION

TABLE – 1: Classification of Respondents by Related Characteristics

N=50

Characteristics	Category	Respondents	
		Number	Percent
Land holding@	Wet	45	90.0
	Dry	50	100.0
Cropping Pattern@	Kharif	45	90.0
	Rabi	30	60.0
	Summer	25	50.0
Type of Road	Mud	20	40.0
	Stone layered	30	60.0
Condition of Road	Good	15	30.0
	Average	35	70.0
Rate Waste/Garbage management in village	Good	5	10.0
	Fair	5	10.0
	Average	40	80.0
Use/have at Home	Rat killer	20	40.0
	Insecticide	5	10.0
	Mosquito repellent	5	10.0
	No	20	40.0

@ Multiple Response

Table- 1 reveals the respondents by related characteristics. Cent percent of the respondents had dry lands and 90 percent of them had wet lands. Higher percentage of the respondents followed Kharif cropping pattern followed by rabi and summer crops. Most of them remarked that the roads were stone layered and the condition of the road was average. They also remarked that the garbage management in their village was average.

TABLE – 2: Educational Qualification of the Respondents

N=50

Education	Educational Qualification			
	Self		Spouse	
	Number	Percent	Number	Percent
Illiterate	5	10.0	5	10.0
Primary	20	40.0	20	40.0
Middle	5	10.0	0	0.0
High school	0	0.0	5	10.0
PUC/Diploma	15	30.0	10	20.0
Graduate	5	10.0	10	20.0

Table 2 depicts the educational qualification of the respondents and their spouses. It was found that 40 percent of the respondents and their spouses studied till primary followed by PUC/Diploma.

TABLE – 3: Waste generated in House

N=50

No.	Type of Waste	Frequency (%)		
		Daily	Monthly	Occasionally
1	Vegetables	100.0	0.0	0.0
2	Plastic	10.0	30.0	60.0
3	Garden waste	70.0	30.0	0.0
4	Metal	0.0	0.0	100.0
5	Tins	0.0	0.0	100.0
6	Cans	0.0	10.0	90.0
7	Glass/Bottle	0.0	20.0	80.0
8	Ceramic	0.0	10.0	90.0
9	Paper	0.0	50.0	50.0
10	Books	20.0	40.0	40.0
11	News paper	10.0	50.0	40.0
12	Textiles	0.0	0.0	100.0
13	Electric item	0.0	0.0	100.0
14	Animal waste	100.0	0.0	0.0
15	Agricultural waste	70.0	30.0	0.0

According to table 3, cent percent of the respondents remarked that they generate vegetable and animal waste daily followed by agricultural waste. The other waste that are generated in their house were plastic waste, metals, tins, cans, glass/bottles, ceramics, textile and electric items occasionally, books, garden waste, newspaper monthly.

TABLE – 4 Classification of Respondents by Segregate waste

N=50

Pattern	Aspect	Response	
		Number	Percent
Always	Easy to dispose	25	50.0
	Reuse	45	90.0
	Sell	45	90.0
Some times	During function	30	60.0
	It Incentive is given	40	80.0
	When ever have time	35	70.0
Never	Difficult to do	20	40.0
	No space	5	10.0
	No use	10	20.0
	Don't know how to use	35	70.0
	Does not make a difference	30	60.0

Table-4 depicts the classification of respondents by waste segregation the despondence reported their segregated waste always, sometimes or never. The reasons given for segregating waste always it was easy to dispose by 50 percent and easy to reuse and sell by 90 percent each of the respondents 80 percent of the respondents segregated waste sometime when incentive was given to them followed by whenever there have time(70%) end during functions(60%).

With regards to those who did not segregate waste, 70 percent of them did not know how to use the segregated waste and 60% of the reported that, it does not make a difference followed by 40% A of the despondence, who felt segregation was a difficult task and no use (20%) and no space by 10% of the respondents.

TABLE – 5 Classifications of Respondents by Knowledge on Waste Segregation

N=50

No.	Type of Media	Response (%)		
		Full extent	Partial extent	Not at all
1	Electronic media	0.0	40.0	60.0
2	Print media	0.0	10.0	90.0
3	Meetings/Lectures/Talks	0.0	60.0	40.0
4	Family/Relatives/Members	0.0	100.0	0.0
5	Friends/Neighbours	30.0	70.0	0.0
6	Self motivation	80.0	20.0	0.0
7	Health personnel	80.0	10.0	10.0

Waste segregation at source is the key to management of garbage. Table-5 shows the extent of information gained by the respondents on waste segregation from different Medias. Cent percent of the respondents gained partial information about importance of waste segregation thought family relative and other members. Full knowledge about source segregation and its importance's in management of garbage was gained through health personnel and self motivation.

Partial knowledge on waste segregation was also gained through friends and neighbours' (70%), by attending meetings ,lectures and talks for (60%) through electronic media by (40%) and other sources of information like health persons self motivation and print medias like magazines' and newspapers.

TABLE – 6 Classification of Respondents by Type of Container used for disposing waste

N=50

No.	Aspects	Response	
		Number	Percent
i)	Type of Container		
1	Old carton box	35	70.0
2	Bamboo basket	45	90.0
3	Old buckets	20	100.0
4	Plastic bags	40	80.0
5	Plastic can	30	60.0
6	Others	30	60.0
ii)	Person disposing waste		
7	Homemaker	40	80.0
8	House master	45	90.0
9	Children	40	80.0
10	Paid helper	30	60.0
11	Other members	25	50.0

Table-6 Reveals the type of container used for disposing waste. Cent percent of the Respondents are using the old bucket for collecting the household garbage followed by bamboo baskets and plastic covers. It was also observed that, housemaster was the person who disposed of the garbage from home in majority of the households (90%) followed by the homemakers (80%).

TABLE – 7: Condition of surrounding area

N=50

No.	Condition of surrounding	Response (%)		
		Always	Sometimes	Never
1	Rotting Garbage	40.0	60.0	0.0
2	Rusting bins	20.0	80.0	0.0
3	Foul smell	30.0	70.0	0.0
4	Scattered garbage	60.0	40.0	0.0
5	Presences of rats	90.0	10.0	0.0
6	Feeding by Domestic animals	80.0	20.0	0.0
7	Dark water flowing	30.0	50.0	20.0
8	Rag picker	30.0	40.0	30.0
9	Fire	0.0	90.0	10.0

Table-7 reveals the condition of the surrounding area. Majority of the respondents expressed that due to the disposal of waste in open spaces, ditch and open drainage, the presence of rats and feeding on waste by domestic animals were the common sight. They also remarked that sometimes the surrounding area where they live experienced rotting of garbage, rusting bins, foul smell and scattered garbage. Hence, this shows the living condition due to unplanned way of disposal of waste in the rural areas leads to many health related problems.

TABLE – 8: Suggestion for Effective Disposal of Waste

N=50

No.	Preferential	Preferential Ranking (%)							Overall
		I	II	III	IV	V	VI	VII	
1	Placement of bins at appropriate distance	0.0	0.0	90.0	10.0	0.0	0.0	0.0	19.9
2	Separate bins for different types of waste	30.0	40.0	0.0	10.0	0.0	20.0	0.0	26.5
3	Source segregation of waste	60.0	30.0	0.0	10.0	0.0	0.0	0.0	32.7
4	Effective management at household through awareness programmes	10.0	20.0	0.0	30.0	30.0	10.0	0.0	21.4
5	Effective management at community level	0.0	00.0	10.0	20.0	60.0	10.0	0.0	16.8
6	Provide education/Awareness on waste	0.0	0.0	0.0	20.0	10.0	60.0	10.0	12.2
7	Financial help	0.0	10.0	0.0	0.0	0.0	0.0	90.0	7.7

Table- 8 reveals the suggestion for effective disposal of waste. The respondents were asked to rank seven statements which help in effective disposal of garbage. Providing financial help was ranked first, followed by providing education/Awareness on waste. Effective management at community level was ranked third suggestion in effective disposal of waste followed by Placement of bins at appropriate distance. Effective management at household through awareness programmes was rated as fifth suggestion followed by Separate bins for different types of waste and Source segregation of waste as the last suggestion.

CONCLUSION:

It was found from the study that the major portion of the waste generate in rural household were vegetable waste and animal waste followed by garden and agricultural waste. The condition of the surrounding area was not good and higher percentage of the respondents disposed the waste in a ditch everyday followed by open space, open drainage and public bins. Majority of the respondents expressed that due to the disposal of waste in open spaces, ditch and open drainage, the presence of rats and feeding on waste by domestic animals were the common sight. Cent percent of the respondents gained partial information about importance of waste segregation thought family relative and other members. Full knowledge about source segregation and its importance's in management of garbage was gained through health personnel and self motivation. Most of the respondents agreed that source segregation of waste, separate bins for different types of waste and effective management at household through awareness programmes helps to curb the garbage menace. Therefore there is a need to create awareness in rural areas on safe disposal of waste and to create a favourable environment for better living.

REFERENCES:

- 1)EPA 1996. Pick up savings: Adjusting Hauling services while Reducing Waste.
- 2) Ministry of Environment and Foresets, Notification N.S.O.630 (E). Biomedical Waste (Management and hanling) rules, 1998. The Gazette of India, Extrodinary, PartII, Section 3(ii), dated 27th July, 1998.10-20, 460.
- 3) Pacheco, M 1992. Recycling in Bogot: developing a culture for urban sustainability. Environment and Urbanization, Vol.4, No.2.p.74-79.
- 3) Sharma A. Biomedical Waste (Management and Handling) Rules. Suvidha Law House, Bhopal, First edition.12.

Publish Research Article

Dear Sir/Mam,

We invite unpublished Research Paper, Summary of Research Project, Theses, Books and Book Review for publication.

**Address:- Dr. Ashak Hussain Malik House No-221, Gangoo Pulwama - 192301
Jammu & Kashmir, India**

Cell: 09086405302, 09906662570,

Ph No: 01933212815

Email: nairjc5@gmail.com, nairjc@nairjc.com, info@nairjc.com

Website: www.nairjc.com

