"KNOWLEDGE, ATTITUDE AND PRACTICES OF LARIONBAJO RESIDENTS ON SOLID WASTE MANAGEMENT"

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ABSTRACT

This study aims to determine the knowledge, attitude and practices of the residents of Larion Bajo, Tuguegarao City on Solid Waste Management. Majority of the respondents are 54 to 59 years old, high school graduate and they earn a living by making and selling metal products. The respondents were dominated by Roman Catholic, Ilokano, has more than six children and has a monthly average income of below P10,000.

The study reveals that most of the respondents know how to identify biodegradable from non-biodegradable wastes. The respondents also know that reduce, reuse, recycle, composting, waste segregation and burning are different waste treatments.The study also shows that most of the respondents have a positive attitude and have a good practice on Solid Waste Management.

KEYWORDS: Solid Waste Management, burning, recycling, garbage disposal, knowledge, attitude, practices

INTRODUCTION

Solid Waste Management and disposal is an alarming problem encountered by many of the urban areas in the world. It is one of the most pressing environmental issues facing the society. Increase in population results an increase in waste which requires finding and buying more landfills to dump the wastes.

Waste mismanagement has serious environmental effects making the passage of the Republic Act (RA) 9003 or the Ecological Solid Waste Management Act of 2000 a landmark environmental legislation in the Philippines. The law was crafted in response to the looming garbage problems in the country. RA 9003 declares the policy of the state in adopting a systematic, comprehensive and ecological solid waste management program that ensures the protection of public health and the environment and the proper segregation, collection, transport, storage, treatment and disposal of solid waste through the formulation and adoption of best environmental practices. Moreover, it illustrates the potentials and

benefits of recycling not only in addressing waste management problems but also in alleviating poverty (Aquino et al, 2013).

The Philippines ranked highest in the Southeast Asia regarding trash collection rate (Ranada, 2015) and the world's third-biggest dumper of plastic in the ocean(Suarez, 2015). About 35,580 tons of garbage is generated every day in the Philippines. On the average, each person in the country produces about 0.5 kg and 0.3 kg of garbage every day in the urban and rural areas, respectively. For Metro Manila, it is estimated that 8,636 tons of garbage is generated per day, i.e., 0.7 kg per person per day due to its more modernized lifestyle. The household is the major source of waste in the Philippines at 74%. Moreover, of the total solid waste generated from households, 95% can still be reused or recycled (43%), or turned into compost (52%). Only 5% is made up of residuals (4%) and special/hazardous waste (1%) that are no longer usable or biodegradable (Castillo and Otoma, 2013).

Solid waste management awareness is an environmental campaign which aims not only to educate people on the consequence of creating and managing waste but also to form in them the right attitude which will consequently motivate them to do desirable practices for waste disposal at home, in school, and elsewhere. Several studies have been conducted which linked responsible environmental behavior with knowledge, attitudes, verbal commitment, and sense of responsibility of the person (Liou, 1992; Hines, Hugerford & omera, 1986); sociodemo graphy, political attitudes, environmental knowledge and concern combined (Olli, Grendstad & Wollebaek, 2001). Educating people to waste management will help them understand of the indiscriminate disposal of waste to the environment and human health and empower them to act accordingly. Though recycling is the most visible, measurable, and enforceable environmental practice in the community, the society must engage in waste reduction and reuse as effective ways of reducing the impact of environmental problems (Desa, Kadir, &Yusooff, 2012).

STATEMENT OF THE PROBLEM

1. What is the profile of the respondents in terms of:

    a. Age

    b. Highest educational attainment

    c.   Occupation

    d.   Family Income

    e.   Religion

    f.   Ethnicity

    g.   Number of children

2.   What is the level of knowledge of respondents on Solid Waste Management in terms of:

    a.   Classifying Solid Waste Management

    b.   Identifying Solid Waste Treatments

3.   What are the attitudes of the respondents towards Solid Waste Management?

4.   What are the practices of the respondents towards Solid Waste Management?

METHODOLOGY

Research Design

This study made use of the descriptive correlational method of research. This study aims to determine the knowledge, attitudes and practices of the residents of LarionBajo, Tuguegarao City on Solid Waste Management.

The researcher made use of questionnaire as a tool in gathering data. The questionnaire has the following parts:

Part I-Socio-demographic profile of the respondents

Part II- Knowledge on Solid Waste Management

Part III- Attitude towards Solid Waste Management

Part IV- Practices towards Solid Waste Management

Data Gathering

The researcher asked permission from the Barangay Captain to conduct the study. The questionnaire was distributed to the respondents and the objectives of the study were clearly explained to them. Informal interview was done to solicit added information to substantiate the respondents' response.

Data Analysis

The data and information gathered through questionnaires were analyzed, tallied and tabulated using frequency count.

RESULTS AND DISCUSSION

Part I. Profile of the Respondents

Distribution of respondents according to age		
Age Bracket	Frequency	Percentage
18-23	1	1.43
24-29	10	14.29
30-35	12	17.14
36-41	13	18.57
42-47	6	8.57
48-53	8	11.43
54-59	14	20
60 above	6	8.57
TOTAL	70	100
Distribution of respondents according to highest educational attainment		
Educational Attainment	Frequency	Percentage
Never attended school	0	0
Elementary Undergraduate	9	12.86
Elementary Graduate	9	12.86
Highschool Undergraduate	9	12.86
Highschool Graduate	29	41.42
Vocational Undergraduate	0	0
Vocational Graduate	2	2.86
College Undergraduate	7	10
College Graduate	5	7.14

With Post Grad Units	0	0
TOTAL	70	100

Distribution of respondents according to occupation

Occupation	Frequency	Percentage
Unemployed	10	14.29
Farmer	7	10.0
Government Employee	6	8.57
Private Employee	5	7.14
Blacksmith	42	60.0
TOTAL	70	100

Distribution of respondents according to Religion

Religion	Frequency	Percentage
Roman Catholic	47	67.14
Born Again	5	7.14
Iglesiani Cristo	8	11.43
Jehovah's Witness	10	14.29
TOTAL	70	100

Distribution of respondents according to Ethnicity

Ethnicity	Frequency	Percentage
Ilokano	52	74.29
Ybanag	7	10
Itawis	4	5.71
Tagalog	5	7.14
Bisaya	2	2.86
TOTAL	70	100

Distribution of respondents according to size of the family

Number of children	Frequency	Percentage
Two	3	4.29
Three	9	12.86
Four	12	17.14

Five	15	21.43
Six and Above	31	44.29
TOTAL	70	100
Distribution of respondents according to family income		
Family Income	Frequency	Percentage
P10,000 and below	60	85.71
P10,001-P20,000	5	7.14
P20,001-P30,000	4	5.71
P30,001 and above	1	1.43
TOTAL	70	100

Data reveals that there is only one respondent who is at the age bracket 18-23, ten who are at 24-29, twelve who are at 30-35, thirteen who are at 36-41, six who are at 42-47, eight who are at 48-53, fourteen who are at 54-59, and six who are at 60-65 years old. Majority of the respondents are 54 to 59 years old.

Data reveals that no one from the respondents ever attended school and is a vocational undergraduate, nine are elementary undergraduate, nine are elementary graduate, nine are high school undergraduate, twenty nine are high school graduate, two are vocational graduate, seven are college undergraduate, five are College Graduate and none with Post Graduate degree. High school graduate dominated the respondents with 29 out of 70 or 41.42%

Data reveals that ten are unemployed, seven are farmers, six are government employee, five are private employee and forty two are blacksmith. Majority of the respondents are blacksmith. They earn a living by making and selling metal products.

The table presents the distribution of respondents according to religion. Forty seven out of seventy are Roman Catholic, five are Born again, eight are Iglesiani Cristo and ten are Jehovah's witness. The respondents were dominated by Roman Catholic.

Data reveals the distribution of respondents according to ethnicity. Fifty two out of seventy respondents are Ilokano, seven are Ybanag, four are It awes, five are Tagalog and two are Bisaya. The respondents were dominated by Ilokano.

The table presents the distribution according to size of the family. Three out of seventy respondents has two children, nine has three children, twelve has four children, fifteen has five children and thirty one has more than six children. Majority of the respondents has more than six children.

Data reveals the distribution of respondents according to family income. Sixty out of seventy respondents has an average monthly income of P10,000 and below, five has P10,001- P20,000 monthly income, four has P20,001 to P30,000 monthly income and one has above P30,001 monthly income. Majority of the respondents has a monthly average income of below P10,000.

Part II. Knowledge of the respondents on Solid Waste Management

Table 2.1 presents the knowledge of the respondents on classifying solid wastes. It shows that most of the respondents know how to identify biodegradable from non-biodegradable wastes.

Table 2.1 Distribution of respondents according to knowledge on classifying Solid wastes:

Wastes	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Batteries	63	90	7	10
Plastic cups and containers	56	80	14	20
Glasswares	55	78.57	15	21.43
Aluminum cans	47	67.14	23	32.86
Branches and stumps	39	55.71	31	44.29
Leftover food	43	61.43	27	38.57
Styrofoam	47	67.14	23	32.86
Magazines, newspapers and catalogs	41	58.57	29	41.43
Manures	43	61.43	27	38.57
Used oil	23	32.86	47	67.14
Rubber	56	80	14	20
Hazardous household	22	31.43	48	68.57

Table 2.2 presents the knowledge of respondents on identifying the different solid waste treatments. It can be shown that most of the respondents know that reduce, reuse, recycle, composting, waste segregation and burning are different waste treatments.

Table 2.2 Distribution of respondents according to knowledge on Identifying Solid Waste Treatments:

Methods	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Reduce	48	68.57	22	31.43
Reuse	48	68.57	22	31.43
Recycle	65	92.86	5	7.14
Composting	52	74.29	18	25.71
Waste Segregation	36	51.43	34	48.57
Burning	46	65.71	24	34.29

Part III. Attitude of the respondents on Solid Waste Management

Table 3.1 presents the attitude of the respondents on Solid Waste Management. It shows that most of the respondents have a positive attitude regarding SWM. However, 64.29% of the respondents said that they will only participate in recycling if will be given incentive, and there were 52.86% said that segregating biodegradable from non-biodegradable wastes takes much of their time.

Table 3.1 Distribution of respondents according to attitude on Solid Waste Management :

Attitude	Yes		No	
	Frequency	Percentage	Frequency	Percentage
It's important for me to participate in Solid Waste Management	69	98.57	1	1.43
I will only participate in recycling if I will be given incentive.	45	64.29	25	35.71
I am satisfied on how Solid Waste	68	97.14	2	2.86

Management is implemented in the barangay.				
I am happy when the surrounding is clean.	70	100	0	0
I am glad that garbage collection is helping the community in garbage disposal.	70	100	0	0
Segregating biodegradable from non-biodegradable takes so much of my time.	37	52.86	33	47.14
I want to use recyclable materials from waste.	66	94.29	4	5.71
I am concern about diseases that are related to improper storage and disposal methods	68	97.14	2	2.86
I am concern about health risks related to burning garbage.	66	94.29	4	5.71

Part IV. Practices of the respondents on Solid Waste Management

Table 4.1 presents the practices of the respondents on Solid Waste Management. It shows that most of the respondents have a good practice on SWM. However, most of them burn their wastes such as leaves and other biodegradable products.

Table 4.1 Distribution of respondents according to Practices on Solid Waste Management :

Practices	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Practice reduction of wastes	57	81.43	13	18.57
Reuse some solid wastes	53	75.71	17	24.29
Practice recycling at home	63	90	7	10
Segregate biodegradable from non-biodegradable	37	52.86	33	47.14
Practice composting	57	81.43	13	18.57
Dispose plastics	49	70	21	30
Burn leaves and other biodegradable products	52	74.29	18	25.71
Burn containers containing chemicals.	55	78.57	15	21.43

CONCLUSION

Based from the findings of the study, the following conclusions were drawn. The respondents are knowledgeable and equipped with the concepts of Solid Waste Management. Most of the respondents practice burning of wastes in their household. Majority knows how to classify biodegradable from non-biodegradable wastes. Respondents have a positive attitude towards Solid Waste Management. Respondents have a good practice on Solid Waste Management.

RECOMMENDATIONS

1. The reduction, reuse and recycling system should be strictly implemented.
2. There should be proper disposal in environmentally sanitary landfill in the community.
3. LGUs should monitor the compliance to Republic Act 9003 and rampant littering and unhealthy practice of burning wastes in some open dumps and areas.

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