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Assessment of the Implementation of Proper Solid Waste Management of the Residents in Bonbon, Clarin, Bohol

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ABSTRACT

Solid waste management is the process of collecting and treating solid wastes. It also offers solutions for recycling items that do not belong to garbage or trash. Reducing and eliminating the adverse impact of waste materials on human health and the environment supports economic development. Quality of life is the primary goal of solid waste management. To ensure environmental best practices, content or hazard potential and solid waste must be managed systematically, and it is needed to be incorporated into ecological planning. This study aimed to assess Bonbon, Clarin, Bohol residents towards the proper implementation of solid waste management. The quantitative-descriptive method of research was used with the aid of a modified standardized survey questionnaire. The data showed that mothers or married respondents aged 21-30 got the highest percentage. Therefore, it shows that they are the ones primarily in charge of household waste management. The Assessment of the implementation of Solid Waste Management was conducted per dimension: Planning and Control, Zero Waste Collection Service, and Waste Disposal System. According to the results, the dimension of Planning and Control was labeled as Strongly Implemented, Zero Waste Collection Service was marked as Moderately Implemented, and Waste Disposal System was categorized as Moderately Not Implemented. Therefore, it shows that the Solid Waste Management in Bonbon, Clarin, Bohol was moderately implemented. Thus, the study's outcome served as a guide to enhance their best practices for the full implementation and sustainability of solid waste management in their locality.

Keywords: Environmental Health, Solid Waste Management, Planning and Control, Zero Waste Collection Service, Waste Disposal System, Quantitative Descriptive Method, Chi-Square. Kruskal-Wallis

INTRODUCTION

The pressing problem in today's environment is the escalation of solid waste generated due to an increasing population that leads to the deterioration of the environment.

There are several ways on how to dispose of one's waste properly. But no matter how many ways are there, if the individual lacks the attitude in

disposing of trash, then pollution is sure to happen. But it's not too late, and everyone has a vision of having a significant change in our environment. This intention explains why our different locale implements other waste management to avoid risk in terms of our health and the environment. Young people's attitude and environmental knowledge play a significant role in answering future environmental problems (Ehrampoush & BAGHIANI 2005).

People will give importance and attention as they follow the rules of proper solid waste management. If everyone is doing a great job, the implemented waste program will be developed and its responsibility continuously. We can benefit from following the applied rules and following the right ways of proper solid waste management. These will create a significant impact on the environment as well as the attitude of human beings. People are the problem; therefore, people are the solution. Proper Waste Management will help keep away the issues concerning improper waste disposal. If people will be more responsible and concern about this program, they must offer their helping hands together for the sake of our good.

Theories are set of ideas that are intended to explain facts or events. These are beliefs, policies, or procedures proposed followed as a set basis of action. The evolution of the theory of Waste Management by Pongracz, Phillip, and Keiski (2004) has been founded through the expectations that waste management is a way of getting rid from unhealthy results to human health to the surroundings. The functionalist theory of Katz explains why a person's attitude alters. In connection with the purpose of this theory, people tend to seek what is solid waste management. If the program is not well-informed to the people, their attitude leading to their behavior may not suit the purpose of solid waste management. In a sense, they may not respond rightfully because of the information that is not delivered properly in opposition to what they know.

The main predictors of behavior in the reasoned action theory of Ajzen, it looks at the behavioral intentions, preferably to attitudes (Sheppard, Hartwick & Warshaw 1988). This theory tells that even if a person's manner will be negative towards solid waste management. However, the person still intended it to follow solid waste management because of some reason. The behavioral intention is why the person's behavior was different from its attitude in solid waste management.

The study is anchored on different Sustainable Development Goals, especially goal six the Clean Water and Sanitation. Target 6 aims to "*end open defecation and provide access to sanitation and hygiene."* SDG 6.2.1 is the indicator of target six that talks about the safe sanitation and hygiene that (a)*proportion of the population will use safely managed sanitation services* and (b) *hand-washing facility with soap and water. If it is followed appropriately, it is a great help to achieve this goal*. In addition, SDG 6, target 6. B states that support local engagement in water and sanitation management. SDG indicator 6.B.1, which is local participation in sanitation management. Having clean water and sanitation means being able to avoid exposure to countless diseases. United Nations addressed this challenge, most especially by providing facilities and services to safely dispose of human urine and feces.

Sustainable Development Goal 12: Ensure Sustainable Consumption and Production Patterns. Target 12.4; "*responsible management of chemical and waste."* United Nations aimed to achieve sound management of chemicals and all wastes environmentally, per agreed international frameworks, and significantly reduce their release to air, water, and soil to minimize the adverse impacts on human health and the environment. SDG indicator 12.4.1, "*international agreements on hazardous waste*." This indicator assesses the percentage of countries committed to their multilateral agreements. Another target of SDG 12 that supports the study is target 12.5, which "*substantially reduces waste generation."* SDG indicator 12.5.1 is the "*national recycling rate, tons of material recycled."* The limited data is available for recycling rates globally. As we strive for sustainable development and economic growth, we must decrease our use of natural resources and minimize generated waste and pollutants by changing our consumption and production patterns that directly affect people, not just the environment.

RA 9512 National Environmental Awareness and Education Act of 2008, aims to promote environmental awareness through environmental education and other purposes. Other relevant agencies shall integrate environmental education in the school curricula at all levels, whether public or private. Environmental education does cover not only the theoretical aspect but also the practicum aspects. Some activities and projects are leading to environmental protection and conservation. Proper implementation of the law will help save the earth by protecting the environment. This law requires the local government units to conduct

segregation and collect solid wastes. In addition, there is a mandate to classify wastes as biodegradable, compostable, and reusable. All non-biodegradable materials shall be collected by the municipality or city government.

"Ecological Solid Waste Management Act of 2000". Republic Act of 9003 describes solid waste management as a discipline associated with the control of generation, storage, collection, transfer and transport, processing, and disposal of solid wastes. National Solid Waste Management Commission and Solid Waste Management Board are established to encourage and facilitate the development of local plans. In addition, Local Government Units are mandated to establish a Material Recovery Facility (MRF) in each barangay or cluster of barangays designed to receive, sort, process, and store compostable and recyclable materials efficiently. Unlawful acts in this law are the following; littering, throwing, dumping of waste matters in public places, such as roads, sidewalks, canals, *esteros* or parks, and establishments, or causing or permitting the same. Sanctions and penalties of this law are stated as follows; open burning solid waste. Any violations will be meted by a fine of not less than 10,000 pesos but not more than 100,000 pesos or six years of imprisonment, or both.

In the locale of the study, Barangay Ordinance No. 01 Series of 2016 mandating all households in Barangay Bonbon, Clarin, Bohol to have their own compost pit/compost pile, compost bin/compost receptacles to promote sustainably clean and environment-friendly barangay and in section 5, implementing guidelines to produce proper balance in the implementation of the Ordinance, specific guidelines are set; Barangay Kagawad, BHW, and Barangay Tanods in every *sitio/purok* shall conduct sustaining IEC and closely monitor each household with a compost pit or pile with proper rooting with an average area of 1Mx1Mx1M to contain biodegradable waste and three pieces of sacks for recyclable waste materials, residual wastes. All households are advised to place the collected recyclable materials to the barangay MRF if they want to, or just be kept at home for their discretion. The LGU-Clarin will only collect residual and hazardous wastes in sacks or receptacles. Unsegregated wastes will not be collected. The household that did not practice waste segregation shall be penalized—throwing of solid wastes and animal excreta and dead animals in canals, rivers, and *esteros*. Stated in Section 7, any household member found violating thereof shall be penalized as follows; 100php for the first offense, 300php second

offense, and 500php plus community service for the third offense and subsequent offenses.

Solid Waste Management is a universal issue that matters to every person in this world. It is all about treating our wastes into a valuable resource that does not belong to trash. Waste management has a huge role since it is one of the keys to protecting our environment and conserving our natural resources (Costi, Minciardi, Robba, Rovatti & Sacile 2004). Waste Hierarchy was traced when the environmental movement that people should practice disposal-based waste management. 3R's or 'reduce, reuse, recycle' are used in the community (Gertsakis & Lewis 2003). Recycling transforms wastes into a functional product (Singh, Hui, Singh, Ahuja, Feo & Fraternali 2017). Recycling is the one leading solution in the reduction of waste quantity and reclaims reusable products. (Ahsan, Alamgir, El-Sergany, Shams, Rowshon, & Daud, 2014). Composting is a natural way of converting organic waste into a solid form with aerobic or anaerobic erosion (Wu, Lim, and Lim 2014).

A study from Oztekin, Teksöz, Pamuk, Sahin, and Kilic stated that descriptive statistics supported the identification of attitudes toward recycling. Female attitudes were innate (recycling is good, necessary, useful, and sensitive), whereas males were learned (recycling is healthy, valuable, and correct). Thus, it has been concluded that their past behavior shapes males' intention for recycling, and the conclusion is supported by males having learned attitude toward recycling. In contrast, females' lack of intention for recycling is shaped by their perceived behavior control and is supported by their innate attitude toward recycling. The housewives or mothers are in charge of waste management in the family. Since husbands or fathers are primarily in their work earning for the family, they have no time to manage household waste (Bernardo 2008). Participate in solid waste management programs like recycling also relies on awareness and understanding about recycling (Omran, Mahmood, Abdul Aziz, & Robinson 2009). People should have the attitude and behavior in accepting the activity and think of the benefits of recycling (Barr, Ford, & Gilg 2003).

This study aims to assess the implementation of Proper Solid Waste Management of The Residents in Bonbon, Clarin, Bohol. The findings of the study serve as the basis for recommendations. It further aimed to discuss the following facets of the problem in terms of the profile of the respondents (age and position in the family), Assessment on the implementation of solid waste management in the following dimensions

(Planning and Control; Zero Waste Collection Service; Waste Disposal System) and the significant degree of variance among the three dimensions of solid waste management, significant degree of relationship between the profiles of the respondents and the Assessment of the implementation of solid waste management. Crafted recommendations were based on the findings revealed in the study.

METHODOLOGY

This study employed the quantitative-descriptive method using a modified standardized questionnaire based on the study of "Ajith P.S. entitled *A Study on the Effectiveness of Solid Waste Management of Municipality in Kerala*," as the primary tool to collect the data from the residents of Bonbon, Clarin, Bohol, with the total population of 1,316. The researcher used a sample size calculator to get the proportion of 300 respondents, with one or two respondents per family, who participated in the conduct of the survey.

The data-gathering used in the study was the modified standardized questionnaire to assess the implementation of solid waste management of residents in Bonbon, Clarin, Bohol. The said questionnaire was composed of two parts—the first part comprises the respondents' profile: age and position in the family. The second part comprises 22 items test to address the data needed to assess the solid waste implementation. Parameters given for the level of solid waste implementation program of the locality were as follows: 3.25-4.00 means fully implemented, 2.50-3.24 means partly implemented, 1.75-2.49 means partly not implemented, 1.00-1.74 means not implemented. The said questionnaire was being translated into the native language to benefit the respondents' complete understanding. Since the tool was modified, it underwent a reliability test. Pilot testing of the revised questionnaire was conducted on ten individuals with the same demographic profile as the actual respondents. The results were then subjected to a reliability test using Cronbach's Alpha; results revealed that the tool is reliable units a=.847 > a=.700 with the item reliability test. All items were deemed reliable with all values greater than .05. Hence, removing an item was not necessary.

The study underwent an ethics review by the Ethics Review Committee of the University of Bohol in preparation for the data gathering. Approval was then sought from the University of Bohol Vice President

for Academics, Department Dean, and Barangay Captain. Upon approval, the researchers wrote a letter to the respondents explaining the study's objectives. Respondents were briefed about their rights at the beginning until the end of the study. They were assured of their complete anonymity, and they could stop at any point if they felt that their rights were violated. Their signature is affixed as a sign of their consent.

Data gathered from the study was analyzed using Simple Percentage, Weighted Mean, Chi-Square, Kruskal-Wallis. In addition, a normality test was done using Shapiro- Wilk (n<1000) to check if the data is typically distributed.

RESULTS AND DISCUSSIONS

The following are the highlights of the findings after the analysis and interpretation of the data.

Respondents' Assessment on the Implementation of Solid Waste Management as to Planning & Control

Table 1 presents the respondent's Assessment of the Implementation of Solid Waste Management regarding planning and control.

Table 1. Respondents' Assessment on the Implementation of Solid Waste Management as to Planning & Control
n = 300

	Items	WM	DV	R
1.	The solid waste management plan was being announced to the public and as to when it is required	3.56	SI	1
2.	We can complain anytime in our barangay if we have a problem about disposing solid wastes	3.43	SI	2
3.	Our barangay has solid waste budget	2.88	MI	3
	Composite Mean	3.29	SI	

Legend:

1.00 – 1.74 Strongly Not Implemented (SNI)
1.75 – 2.49 Moderately Not Implemented (MNI)
2.50 – 3.24 Moderately Implemented (MI)
3.25 – 4.00 Strongly Implemented (SI)

The respondents' Assessment on the implementation of solid waste management as to planning and control has the composite mean of **3.29,** which is labeled as **"Strongly Implemented."** Item number 1 got the rank 1st has a weighted mean of **3.56** labeled **"Strongly Implemented."** Item number 2, ranked as 2nd, has a weighted mean of **3.43**, marked as **"Strongly Implemented."** Lastly, item number 3, rank 3rd, has a weighted mean of **2.88** labeled as **"Moderately Implemented."** It connects to the study of Guerrero, Maas & Hogland (2013), stated that "It is a challenge to the government developing their country since our wastes are increasing. This will result from having a high budget cost, but to handle it, we just have to understand the different factors that affect waste management".

Respondents' Assessment on the Implementation of Solid Waste Management as to Zero Waste Collection Service

Table 2 presents the respondents' Assessment of solid waste management as to zero waste collection service.

Table 2. Respondents' Assessment on the Implementation of Solid Waste Management as to Zero Waste Collection Service
.n = 300.

	Items	WM	DV	R
1.	The waste is properly disposed of because the wastes are collected	3.09	MI	3
2.	The barangay is providing collection service even though I belong to a low-income area	2.65	MI	11
3.	Waste is collected/removed daily	2.74	MI	10
4.	The organic and recyclable waste is separately collected for disposal and processing	3.04	MI	
5.	Throwing of solid wastes human and animal excreta and dead animals in canals, river, and *esteros* are strictly prohibited	3.30	SI	1
6.	We are providing waste bins for my home	2.99	MI	7
7.	The waste bins have top cover to prevent littering of deposited waste	2.10	MNI	14
8.	In my family, waste is segregated into biodegradable and non-biodegradable	2.85	MI	9

	Items	WM	DV	R
9.	There are two bins in my home, one for biodegradable and non-biodegradable	2.91	MI	8
10.	The barangay segregates waste after collection	3.04	MI	5
11.	Unsegregated waste will not be collected, and the household that did not practice waste segregation shall be penalized	3.05	MI	4
12.	Non-biodegradable waste like plastic, metal parts, fiber, etc. are reused or sold to recyclers	3.21	MI	2
13.	Every household has a compost pit or pile with proper roofing	2.15	MNI	13
14.	Every household has three (3) pieces of sacks intended for recyclable waste materials and residual waste	2.40	MNI	12
Composite Mean		**2.82**	**MI**	

Legend:

1.00 – 1.74 Strongly Not Implemented (SNI)

1.75 – 2.49 Moderately Not Implemented (MNI)

2.50 – 3.24 Moderately Implemented (MI)

3.25 – 4.00 Strongly Implemented (SI)

The Respondents' Assessment on the Implementation of Solid Waste Management as to Zero Waste Collection Service has the composite mean of **2.82** and is labeled **"Moderately Implemented."** Item number 5 ranked the highest, with a weighted mean of **3.30,** marked as **"Strongly Implemented."** Item number 12 ranked as 2nd that has a weighted mean of 3.21 labeled as "Moderately Implemented. Item number 1 ranked as 3rd with a weighted mean of 3.09 labeled as "Moderately Implemented." Item number 14 ranked as 12th with a weighted mean of 2.40 labeled as "Moderately Not Implemented." Item number 13, ranked as 13th, got the weighted mean of 2.15 labeled as "Moderately Not Implemented." Item number 7 got the lowest rank has a weighted mean of 2.10 labeled as "Moderately Not Implemented." The top 3 results support the barangay ordinance Republic Act No. 9003, Section 2 Declaration of Policies (c) "Set guidelines and targets for solid waste avoidance and volume reduction through source reduction and waste minimization measures, including composting, recycling, re-use, recovery, green charcoal process, and others, before collection, treatment and disposal inappropriate and

environmentally sound solid waste management facilities per ecologically sustainable development principles."

In comparison, the bottom three results support the Barangay Ordinance No. 1 Section 5 Implementing Guidelines b. That every household shall possess the following: "Three (3) pcs. Of sacks intended for recyclable waste materials and residual wastes", and Barangay Ordinance No. 01 Series of 2016 "An ordinance mandating all households in barangay Bonbon, Clarin, Bohol to have their own compost pit/compost pile, compost bin/compost receptacles to promote sustainably clean and environment-friendly barangay.

Respondents' Assessment on the Implementation of Solid Waste Management as to Waste Disposal System

Table 3 presents the respondents' Assessment on the implementation of solid waste management as to waste disposal system.

Table 3. Respondents' Assessment on the Implementation of Solid Waste Management as to Waste Disposal System
n = 300

	Items	WM	DV	R
1.	The collected waste is sold to recyclers	2.86	MI	1
2.	The barangay has a recycling project to recycle the segregated waste	1.97	MNI	2
3.	Recycling industries are present in our barangay	1.75	MNI	3
Composite Mean		**2.19**	**MNI**	

Legend:

1.00 – 1.74 Strongly Not Implemented (SNI)
1.75 – 2.49 Moderately Not Implemented (MNI)
2.50 – 3.24 Moderately Implemented (MI)
3.25 – 4.00 Strongly Implemented (SI)

The Respondents' Assessment on the Implementation of Solid Waste Management as to Waste Disposal System has the composite mean of **2.19,** labeled as **"Moderately Not implemented."** Item number 1, ranked as 1st, has a weighted mean of **2.86** labeled as **"Moderately Implemented."** Item number 2, classified as 2rd, has a weighted mean of **1.97** and **1.75,** respectively, labeled as **"Moderately Not Implemented."**

According to the study of Ahsan, Alamgir, El-Sergany, Shams, Rowshon, and Daud (2014) state that "Recycling is the one main solution in the reduction of waste quantity and reclaim reusable products." This outcome means that recycling industries can help convert wastes into products that can still be used to reduce the quantity of garbage.

Summary: Respondents' Assessment on the Implementation of Solid Waste Management

Table 4 presents the summary of the respondents' Assessment on the implementation of Solid waste management.

Table 4. Summary: Respondents' Assessment on the Implementation of Solid Waste Management
n = 300

Items	WM	DV	R
1. Planning and Control	3.29	SI	1
2. Zero Waste Collection Service	2.82	MI	2
3. Waste Disposal System	2.19	MNI	3
Composite Mean	**2.77**	**MI**	

Legend:

1.00 – 1.74 Strongly Not Implemented (SNI)
1.75 – 2.49 Moderately Not Implemented (MNI)
2.50 – 3.24 Moderately Implemented (MI)
3.25 – 4.00 Strongly Implemented (SI)

The overall result for the respondents' Assessment on the implementation of solid waste management in Bonbon, Clarin, Bohol has the composite mean of **2.77** and is labeled as **"Moderately Implemented."** The planning and control ranked as 1 has a weighted mean of **3.29** and is labeled **"Strongly Implemented."** The zero-waste collection has a weighted mean of **2.82** and is marked as **"Moderately Implemented."** And lastly, the waste disposal system has a weighted mean of **2.19** and was labeled as **"Moderately Not Implemented."**

Relationship between Respondents' Profile and Assessment on the Implementation of Solid Waste Management

Chi-square tests were conducted to determine the relationship between the respondents' profile and solid waste management implementation. Enumerated below are the test results.

1). Age & Implementation Assessment: X^2 (21, N=300) = 30.571, p = .081 (Insignificant, reject H_0)

2). Position in the Family & Implementation Assessment: X^2(15, N=300) = 9.196, p = .867 (Insignificant, reject H_0)

Table 5. Relationship between the Age and the Implementation Assessment of Solid Waste Management
n = 300

Chi-Square Tests: Age and Implementation Assessment			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	**30.571[a]**	**21**	**.081**
Likelihood Ratio	30.878	21	.076
Linear-by-Linear Association	.933	1	.334
N of Valid Cases	300		

There is no significant relationship between the age and implementation assessment and the position in the family and Implementation assessment of SWM. Furthermore, there is no enough evidence to support the relationship between the variables. Thus, the result revealed that it accepts the null hypothesis, which states that there is no significant degree of relationship between the profile and the Assessment of the residents in the implementation of proper solid waste management.

Table 6 presents the relationship between the Position in the Family and the Assessment of the Implementation of SWM.

Table 6. Relationship between the Position in the Family and the Assessment of the Implementation of Solid Waste Management
n = 300

Chi-Square Tests: Position in the Family and Implementation Assessment

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	**9.196[a]**	**15**	**.867**
Likelihood Ratio	9.999	15	.820
Linear-by-Linear Association	.053	1	.818
N of Valid Cases	300		

The data were subjected to Pearson Chi-Square Test, as shown in the table. The obtained X^2 of 9.196 has a p-value of .0867 and is greater than the 0.05 level of significance. Thus, accepting the null hypothesis, the result revealed no significant degree of relationship between position in the family and Assessment of the Implementation of Solid Waste Management.

This opposed the study of Bernardo (2008), which stated that homemakers or mothers are in charge of waste management in the family. Since husbands or fathers primarily work for the family, they have no time to manage household wastes. But if the family has house helpers, they will automatically take charge of the household waste management.

Based on the data shown, there is no significant relationship between the age and Assessment of the Implementation of Solid Waste Management and the position in the family and Assessment of the Implementation of Solid Waste Management. Thus, the result revealed that it accepted the null hypothesis.

Variance among the three Dimensions of Solid Waste Management

The statistics show that the data on the different dimensions of solid waste management implementation were not customarily distributed per normality tests results. Hence, a nonparametric Kruskal- Wallis test was conducted to determine the variance of the other dimensions. Revealed has a significant result. In the post- hoc Scheffe's Multiple Comparisons test, the variances lie in the following pairings:

1) Planning & Control and Zero Waste Collection Service
2) Planning & Control and Waste Disposal System
3) Zero Waste Collection Service and Waste Disposal System

The data showed that there is a significant result which means that it rejects the null hypothesis.

CONCLUSIONS

The outcome of this study has a significant impact on the residents of Bonbon, Clarin, Bohol. Therefore, based on the findings, the following conclusions are crafted:

In this study, most of the respondents were between the ages of 21-30. Mothers comprised the highest percentage, while grandfathers comprised the most negligible percentage. All respondents were residents of Bonbon, Clarin, Bohol.

The Assessment of the implementation of Solid Waste Management was conducted per dimension: Planning and Control, Zero Waste Collection Service, and Waste Disposal System. According to the results, the dimension of Planning and Control was labeled as Strongly Implemented, Zero Waste Collection Service was marked as Moderately Implemented, and Waste Disposal System was categorized as Moderately Not Implemented. Therefore, the overall result for the respondents' Assessment on the implementation of Solid Waste Management in Bonbon, Clarin, Bohol was Moderately Implemented.

In conclusion, the respondent's profile does not affect the implementation of Solid Waste Management; thus, the null hypothesis is accepted. There is a significant degree of variance among the three dimensions in assessing the implementation of solid waste management, which rejects the null hypothesis.

PROPOSED RECOMMENDATIONS

This study aims to give recommendations that would benefit the people. To help them enhance whatever practices they might have for the betterment of their barangay. Therefore, the following recommendations are offered based on the findings and conclusions of the study:

1. Planning and Control:

- The barangay council is encouraged to increase the budget and adequately use the funds allocated to implement the solid waste management and inspired to create a monthly general cleaning program so that the residents can feel the

responsibility and take part in maintaining the cleanliness of the environment.

- The barangay council is encouraged to conduct/organize seminars for the residents about full awareness of solid wastes management's goals and training promoting the recycling industries that will, later on, become a source of income for the less privileged individuals.

2. Zero Waste Collection Service:

- The barangay council is recommended to show their dedication to implementing solid waste management by setting themselves as an example, like creating a compost pit where they can put their biodegradable wastes. And by joining recycling projects conducted by the government, other linkages of the barangay (public and private sectors)

3. Waste Disposal System:

- The barangay residents are highly motivated to follow the Ordinance fervently to help maintain the cleanliness of the environment to be a conducive place to live.
- The garbage collectors are encouraged to adhere to the strict implementation of waste segregation and a complete collection of wastes based on set schedules. Thus, it enabled the residents to have three covered containers intended to separate recyclable, residual, and hazardous wastes.

4. Future Researchers:

- We encourage not only the future researcher/s but also all the citizens to use this study to generate more research to help in caring for our environment through proper SWM (Solid Waste Management).
- To the readers, may this study enlighten their minds to the current status of the implementation of SWM (Solid Waste Management) and give them awareness of the law and ordinances.

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