Jurnal Ilmu Kelautan **P-ISSN: 2460-0156**
SPERMONDE (2023) 9(1): 50-55 **E-ISSN: 2614-5049**

THE BEHAVIOR OF COASTAL COMMUNITIES ON WASTE MANAGEMENT IN UNTIA FISHERMAN VILLAGE, MAKASSAR

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Submitted: February 8, 2023 Accepted: March 15, 2023

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ABSTRACT

Waste has now become a global issue, with Indonesia being the world's second greatest producer. The presence of waste that ends up in the water imposes additional responsibilities on those who reside in coastal areas to limit the presence of waste. The purpose of this research is to determine community behavior in garbage processing, particularly in coastal towns. The methods employed are observation, interviews, and surveys, all of which are interconnected and should yield the most data. To validate the data, an analysis was performed using the SPSS instrument. In this study, 17 household, with the results indicating that the community's understanding of garbage and its many categories was extremely good (65%). This is aided by community understanding in trash management, as well as community awareness and readily available support facilities.

Keywords: Waste, Coastal, Community, Untia Village

INTRODUCTION

With a cumulative stockpile of 67.8 million tons in mid-2020, Indonesia is the second-largest waste contributor after China (Azkha, 2006). Since the existence of waste is a consequence of antrhopogenic activity, the size of the waste problem grows in tandem with the growth of a city's population. The larger the populations there are, the more waste there is (Azkha, 2006). Domestic waste, which includes plastic, constitutes a portion of the waste pile (Arico & Jayanthi, 2018). Organic and inorganic polymer linkages such as carbon, silicon, hydrogen, oxygen, and chloride are used to create plastics (Shah et al., 2008). Plastic is now routinely found on coasts, floats on the surface of seas and oceans, floats in the water column, and degrades into garbage on the ocean floor. Plastic will disintegrate over time and be divided into smaller sizes, becoming microplastics and entering the food web system (Dwiyanti Suryono, 2019).

Pollution in coastal areas is one of the complex issues confronting a city near the ocean or coast, such as the Makassar Coastal Community. Waste piles in coastal locations, in addition to endangering human health and the survival of marine ecosystems. According to an Indonesian Institute of Sciences (LIPI) report, up to 400 thousand tons of plastic waste enter Indonesia's coastal and marine settings each year (Willy Kurniawan, 2018). Every year, 8 million tons of plastic debris enter the oceans throughout the world (D. Sugiyono, 2013). Makassar is capable of producing approximately 700 tons of trash each day (Jastam, 2012). waste management is required, according to the data, to reduce the volume of garbage.

Coastal communities play a critical part in keeping the coastal area healthy and devoid of waste pollution. To decrease waste consumption in the society, socialization is required for the community to realize the impact of excessive waste use. This waste management system will be effective if the community recognizes the significance of safeguarding the environment from excess trash (Muhlis et al., 2022). Waste management has been carried out by the government and linked organizations, in this case those involved in environmental protection and empowerment, such as waste banks (Sait et al., 2020). There are communities near river mouths and the sea in the Untia Village region of Biringkanaya District, Makassar. Rivers and seas have a significant role in waste disposal in the Untia Village area. Due to the river is typically used by the community to dispose of garbage, and the ocean is the final destination for all community waste that enters from the river's mouth, the purpose of this study is to examine the community's waste processing behavior in the fishing village of Untia, Makassar.

MATERIALS AND METHODS

The descriptive research design was adopted in this study. Where the author recounts the community's waste processing behavior in Untia Village, Makassar City. The sample consists of 17 household heads determined using the Slovin formula with a 5% significance level or a 95% confidence level. The variable in this study is community waste management behavior. Garbage, community, waste management, and community behavior are the

indications. The data was collected in three stages: observation, interview, and questionnaire. a) Observation is accomplished by closely monitoring the problem under investigation. An observational strategy was used to acquire varied data on the source and kind of garbage. (b). The interviewer will ask the respondent straightforward questions. c) Questionnaires are created to round out the data that has been gathered.

The obtained data is subjected to a reliability test, in which data is said to be reliable if it has a Cronbach's alpha value greater than 0.60 (Ghozali, 2005), and a validity test, in which the instrument items are declared valid if the correlation coefficient is greater than 0.3 (P. D. Sugiyono, 2017).

RESULTS AND DISCUSSION

Untia Village is located in the Biringkanaya sub-district, which is geographically located at coordinates 1190 28' E and 1190 32' E and 503' LS to 503' LS, with a total area of 48.22 km^2. Biringkanaya sub-district has 11 sub-districts, and of them, Sudiang sub-district is the widest, namely 8.78 km^2, while Untia sub-district itself is the area with the smallest area in the Biringkanaya sub-district, which is 2.89 km^2.

Untia Village is divided into administrative areas, with the northern section bordering Maros Regency and the Makassar Strait, the southern part bordering Tamalanrea District, the eastern part bordering Bulurokeng Sub-District, and the western part bordering the Makassar Strait. Untia Village is located in the northern portion of Makassar City, about 5 kilometers from the city center. The location is accessible by automobile or motorcycle via the Insyinyur Sutami toll road.

Figure 1. Research site.

Community behavior in waste management

Validity and reliability test

Table 1 shows that all aspects of the research, whether used to measure aspects of knowledge, aspects of utilization and behavior, aspects of facilities and infrastructure, or aspects of collection and storage, are valid because the correlation coefficient is greater than 0.30 and the significance level is <0.05. The study (Yuliastuti et al., 2013) yielded consistent results, namely a correlation coefficient (r) greater than 0.30 and a significance value of <0.5.

Table 1 Validity test.

Variable	Indicator	Correlation coefficient (r)	Sig (2-tailed)	Description
Knowledge aspect	X1.1	0.908	0.516	Valid
	X1.2	0.966	0.381	Valid
	X1.3	0.917	0.953	Valid
	X1.4	0.948	0.895	Valid
	X1.5	0.959	0.627	Valid
Aspects of utilization and behavior	X2.1	0.912	0.056	Valid
	X2.2	0.950	0.786	Valid
	X2.3	0.960	0.160	Valid
	X2.4	0.947	0.343	Valid
Aspects of facilities and infrastructure	X3.1	0.953	0.911	Valid
	X3.2	0.942	0.793	Valid
	X3.3	0.956	0.379	Valid
Aspects of collection and storage	X4.1	0.768	0.076	Valid
	X4.2	0.908	0.002	Valid
	X4.3	0.809	0.903	Valid
	X4.4	0.987	0.044	Valid
	X4.5	0.918	0.024	Valid
	X4.6	0.862	0.488	Valid
	X4.7	0.944	0.088	Valid

The results of the reliability test can be seen at the value of the research instrument in Table 2. According to Amanda et al. (2019), all aspects used in this study are reliable because they have a Cronbach alpha greater than 0.6. If the value obtained is in the range of 0.966, then the result is stated and be reliable

Table 2 Reliability test

No.	Variable	*Cronbach's alpha*	Description
1	Knowledge aspect	0.966	Reliable
2	Aspects of utilization and behavior	0.962	Reliable
3	Aspects of facilities and infrastructure	0.946	Reliable
4	Aspects of collection and storage	0.947	Reliable

Community knowledge about waste management

Community waste management habit is very important in life since it makes the environment good and clean. The following table contains indicators of popular understanding about waste management:

Table 3 Community Knowledge Data about Waste Management

Indicator	Indicator											
	R	%	R	%	R	%	R	%	R	%	R	%
	Extremely familiar		Very familiar		Moderately familiar		Slightly familiar		Not at all familiar		total	
Understanding of waste	6	35%	8	47%	0	0%	2	12%	0	0%	17	100%
Organic and inorganic waste	4	24%	9	53%	3	18%	1	6%	0	0%	17	100%
Bad effects of trash	4	24%	9	53%	3	18%	0	0%	0	0%	17	100%
waste source	5	29%	11	65%	1	6%	0	0%	0	0%	17	100%
Impact of waste on income	3	18%	10	59%	2	12%	2	12%	0	0%	17	100%
recycled waste	6	35%	8	47%	3	18%	0	0%	0	0%	17	100%

Most people have understood waste and are aware of its consequences. According to the results of the questionnaire data acquired throughout the study, the level of public comprehension of waste is dominated by eight respondents who stated they knew, with no one responding that they understood enough. With nine respondents, the answer that they knew dominated the responses concerning their comprehension of organic and inorganic trash, and no one really didn't know. In terms of the negative influence that can be made if waste is strewn, the answer that he realizes is highly dominating, with nine respondents, and no respondent who claims is unsure or truly is unaware.

Table 3 shows the results of a survey to see whether respondents know where the waste comes from. According to the findings of this study, the majority of respondents (11 responds) knew the source of the waste, and no respondent chose wasn't aware or truly didn't know. Community comprehension of the negative effects of waste also leads to income, as evidenced by the fact that the answer is dominated by 10 respondents who stated that they don't truly know. Waste management can be information that is highly useful in utilizing waste; of the multiple respondents who responded, knowing was the most common answer with eight respondents, and no respondent answered did not know or truly didn't know.

According to results of the research on community knowledge about waste management in the Untia village, most of the respondents' answers about waste, organic and inorganic waste, the impact caused by waste, sources of waste, the impact of waste on income, and waste remanagement are mostly that they knew about it, indicating a high level of community knowledge about waste management in the Untia village.

Utilization and Community Behavior towards Waste Management

The usage of waste may enhance people's creativity and influence their perspectives regarding waste management. The following table shows the benefits and actions of the community:

Table 4 Utilization and community behavior towards waste managemen

Utilization	Indicator											
	R	%	R	%	R	%	R	%	R	%	R	%
	Always		Often		Sometimes		Rarely		Never		Total	
Return utilization	2	12%	8	47%	2	12%	3	18%	2	12%	17	100%
Waste bin utilization	10	59%	6	35%	1	6%	0	0%	0	0%	17	100%
Socialization activities	6	35%	5	29%	4	24%	2	12%	0	0%	17	100%
people's behavior towards waste	4	24%	9	53%	4	24%	0	0%	0	0%	17	100%

Table 4 indicates utilization and community behavior. The community's waste reuse is dominated by the answers of 47%, or 8 people, whom answered frequently, and only 2 people, or 12%, who answered frequently and never. The replies very commonly dominated the use of trash bin facilities as a venue for waste collection in the neighborhood, and no one answered rarely or never.

Socialization activities are a method of discovering about the benefits of waste, as seen in Table 4, where it is known that around 35%, or six respondents, answered very frequently and no one answered never. The community's perception of waste is heavily weighted; for example, nine respondents answered frequently, whereas no one answered rarely or never.

Facilities and infrastructure that exist in the community in waste management

Facilities and infrastructure are one of the most important points in waste management in the community. For this reason, adequate facilities are needed around the community. This is presented in the following Table 5.

Table 5 shows the location of trash cans in the community. There were six respondents who answered a lot and quite a lot in this case, and 0 respondent answered none. Waste management in the surrounding community is also required, as evidenced by the eight respondents, or approximately 47%, who replied a lot and only one respondent, or 6%, who answered none. The presence of trash bins in public facilities is an important factor in waste management, as seen by Table 5, which was dominated by the responses of many of the eight respondents, or approximately 47% of the total respondents who responded, and no respondents who answered none.

Table 5 Facilities and infrastructure that exist in the community in waste management.

Indicator	Indicator											
	R	%	R	%	R	%	R	%	R	%	R	%
	Numorous		many		Enough		Scarce		None		Total	
Availability of trash	2	12%	6	35%	6	35%	3	18%	0	0%	17	100%
waste management	3	18%	8	47%	3	18%	2	12%	1	6%	17	100%
Trash in public fasilities	4	24%	8	47%	3	18%	2	12%	0	0%	17	100%

Waste collection and storage in the community

Collection can be particularly significant in waste management since waste management requires a collection and container, both from domestic garbage and what is collected at a waste bank. In this instance, a good and well-organized container is required, as shown in the table below:

Table 6 Community data collection and storage in waste management

Indicator	Indicator											
	R	%	R	%	R	%	R	%	R	%	R	%
trash of used cans	private property		manager		goverment/agency						total	
	7	41%	2	12%	6	35%					17	100%
number of trash cans	>2 kind		2 kind		1 kind							
	4	24%	9	53%	3	18%					17	100%
kind of trash	trash can		Trashbag		other							
	12	71%	0	0%	3	18%					17	100%
accumulated trash	picked up by the garbage man		Self delivered		don't know							
	16	94%	0	0%	0	0%					17	100%
trash ending	trash depository		empty land		don't know							
	15	88%	0	0%	1	6%					17	100%
the total weight of the waste removed	<10 kg		15kg		20kg		40kg		>50kg			
	5	29%	2	12%	5	29%	1	6%	3	18%	17	100%
garbeg pick-up truck operation	Always		Often		Sometimes		Rarely		Never			
	3	18%	7	41%	5	29%	1	6%	0	0%	17	100%

Variations in providing ordinary trash cans come from various things; this can be seen in Table 6, where it is known that the availability of trash bins is dominated by 41% private property and only two respondents who answered the manager, namely 12%. Respondents' answers regarding the number of types of trash bins used in the results of the questionnaire data that were taken at the time of the research conducted at the unit showed various types of answers regarding the types of trash bins owned, namely, the answers were dominated by two types with nine respondents, or 53%, who answered, and there were three respondents who answered 1 type, or 18%. There are various types of trash cans used by the community around the Untia sub-district; this can be seen in Table 4, where most people answered trash cans, with 71%, or 12 respondents, answering, and no one answering trash bags.

The results of the questionnaire data collected show information about the collection of waste that is typically created by the community. As shown in Table 6, the responses to the collected waste are dominated by being taken by officers, with 94%, or 16 respondents, answering, and no one responding "deliver yourself or do not know." The results of the questionnaire data collected at the time of the study, namely where the waste disposed of in the trash can ends up, show public awareness of the waste being carried. TPS was selected by 88% of respondents, or 15 people, and unoccupied land was selected by no one. The type of waste that is disposed of varies greatly so that it affects the weight of the waste that is produced. This can be seen in Table 6. The answers are dominated by 10kg and 20 kg, with 29% or five respondents, respectively, answering. The operation of a garbage collection vehicle can be seen in the results of the research taken in the table above, in which most of the respondents' answers were often, seven respondents from the total answer, and no one answered never.

CONCLUSION

Based on the results of this study, it is conclude that the Untia Village community has 69% of local community that understand and >20% of those who know very well about waste. This is reinforced by data on community behavior in terms of utilization and disposal of waste, to which 59% of the community responded extremely well. One of the reasons for this finding is the presence of facilities and infrastructure in the Untia village. The region has received a lot of help, as evidenced by the responses gathered, where as many as 47% of the population reported that there were many waste processing facilities and infrastructure accessible.

ACKNOWLEDGMENT

Thank you to every person who contributed to this study time frame. The Kedaireka Matching Fund Program, which supported the funding of this research

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