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Community Ecological Behavior in Preserving Coastal Areas (Case Study of Mallusetasi Sub-District)

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Abstract.
This article describes the forms of ecological behavior found in the coastal areas of Barru Regency. The ecological behavior in question includes individual and community behavior in preserving the environment. The study was revealed through qualitative methods. Data were collected through observation, interviews, and documentation. The data analysis used is a qualitative analysis model. The results showed that at the individual level, a person's ecological behavior toward the environment of the coastal area he lives in tends to be indifferent, such as the habit of throwing garbage in the river and the sea becomes commonplace. The river channel is often used as a dumping ground and individuals who live near the beach tend to throw their household waste directly into the sea. Individual awareness of environmental conservation is low, making it difficult to change habits that have been made. At the community level, awareness of ecological behavior will be formed when there are external stimuli such as government intervention and disaster events in the area. Individuals will tend to work together to clean up their environment when there are government intervention and the impact of disasters such as floods. From this research, it was found that individual awareness in ecological behavior is the main key in preserving the environment. On the other hand, support from the government or other cooperative institutions can also increase the tendency of people to behave ecologically.

Keywords: behavior, coastal area, environment, ecology, community

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1. Introduction

Ecological behavior is basically the tendency of humans to behave and behave towards their environment, whether their attitudes and behavioral tendencies support a sustainable ecology or the opposite. The ecology in question is the regional environment where the human lives. Humans and the environment interact with each other and are an inseparable ecosystem unit. Human interaction with the environment will be interdependent, which means that human behavior can affect the environment and vice versa, the environment can also affect human behavior and experience. Humans will shape

and be shaped by their environment. This relationship is a transactional independency, but the way humans view the environment can be immanent or transcendent. Immanent means holistically with the assumption that humans can separate themselves from the biophysical system around them. Human interaction with the environment can cause various physical and psychological impacts, both positive and negative. The positive impact is something that is expected by environmental designers, but according to Holahan, a large number of designs have failed to meet the behavioral needs of the users [1]. This interaction is complex, dynamic and continuous, although in changing conditions it is expected to remain in a balance [2]. In this interaction process, human attitudes and behavior towards the environment will be formed.

Behavior according to [3] it is also defined as something that individuals do with each other and that is real. Morgan and Kwick [4] also said that behavior is something concrete, observable, and learned. Chaplin in [5] it also explains that behavior in a broad sense is something that a person experiences and in a narrow sense behavior is everything that includes observable reactions. Future behavior can in fact be predicted by using previous behavior. Human behavior in interpreting the environment is very dependent on attitudes. Attitude according to [6] is an evaluation or feeling reaction to a perceived object. This attitude will give rise to feelings to support or positive or unsupportive or negative feelings towards the object. According to [7] attitude is a pattern of behavior, anticipatory readiness, predisposition to adjust in social situations and this is also added by [8] that attitudes will provide clues to future behavior so that it can be predicted how an individual will act if he faces the object he is facing. Attitudes can be used to predict behavior, but require several requirements, namely, if a person's attitude is strong and consistent, associated with predicted behavior, based on experience, and individual attitudes [9]. The tendency of human behavior that is carried out continuously will give rise to a habit. According to the view of psychology, habit applies to behavior, must be defined as a process in which a stimulus automatically produces towards action, based on a learned stimulus response [10].

People's ecological behavior is formed because of a norm or law that applies in society. The form can vary depending on how traditions, values and norms are embedded in each community. Kaiser [11] revealed that ecological behavior is formed from attitudes consisting of environmental knowledge, environmental values, environmental behavior intention and responsibility feeling. Of course, the traditions, values and norms contained in a group are the result of past knowledge passed down from generation to generation to preserve this heritage. Similarly, the ecological behavior that is passed down is the result of thoughts given to preserve the environment. In this case, the

researcher tried to reveal the form of environmental conservation in the coastal area in Mallusetasi Sub-District. Mallusetasi Sub-District is almost entirely a Bugis tribe known for its guidelines for behavior, namely *pappaseng* (message) and *pappangaja* (advice). The form of ecological behavior of the Mallusetasi Sub-District community in the coastal area will be revealed more deeply to find out how the condition of community behavior in preserving the environment, especially in coastal areas. Researchers saw that the existing condition of the coastal area in Mallusetasi Sub-District was very concerning. Along the coastal area, the environmental sustainability of the area is not maintained such as a collection of garbage scattered both in the coastal area and in the estuary area. So, on this basis, this research seeks to reveal the meaning and obtain the form of community ecological behavior in preserving coastal areas.

2. Method

This research was conducted through a qualitative approach. [12] revealed that qualitative method is one of the methods to describe, explore and understand the meaning in several individuals or in groups that come from social problems. The focus to be revealed is the form of ecological behavior in the community in preserving coastal areas. The required informants include coastal communities and around the estuary area in Mallusetasi District because the area is an area of accumulation of waste or garbage which results in environmental pollution. Data were collected through observation, interviews, and documentation. The data analysis technique used was qualitative analysis of the Miles and Hubberman model with a series of analyses, namely data collection, data condensation, data display and verification or conclusion drawing.

3. Result and Discussion

With the outbreak of various environmental issues between 1968-1970, ecology began to be seen as an interdisciplinary, integrative, and holistic science that links various physical and biological processes although it still has a close relationship with biology. Even ecological principles are often used to explain the ins and outs of artificial environments, such as cities with what is called urban ecology, and so on. Given the importance of building a sustainable environment for the achievement of sustainable development goals, solutions in reducing environmental pollution researchers reveal human behavior in preserving the environment at the individual level or at the group level from an environmental, psychological, and social point of view.

Starting from the Mallusetasi Sub-District area, which is one of the Sub-Districts in Barru Regency which geographically has an area that has abundant fishery potential. The settlement pattern that extends along the coast of Barru Regency results in the economic activity of the community in the fisheries sector. It can be seen in Figure 1 that settlements and human activities in Mallusetasi Sub-District are in coastal areas.

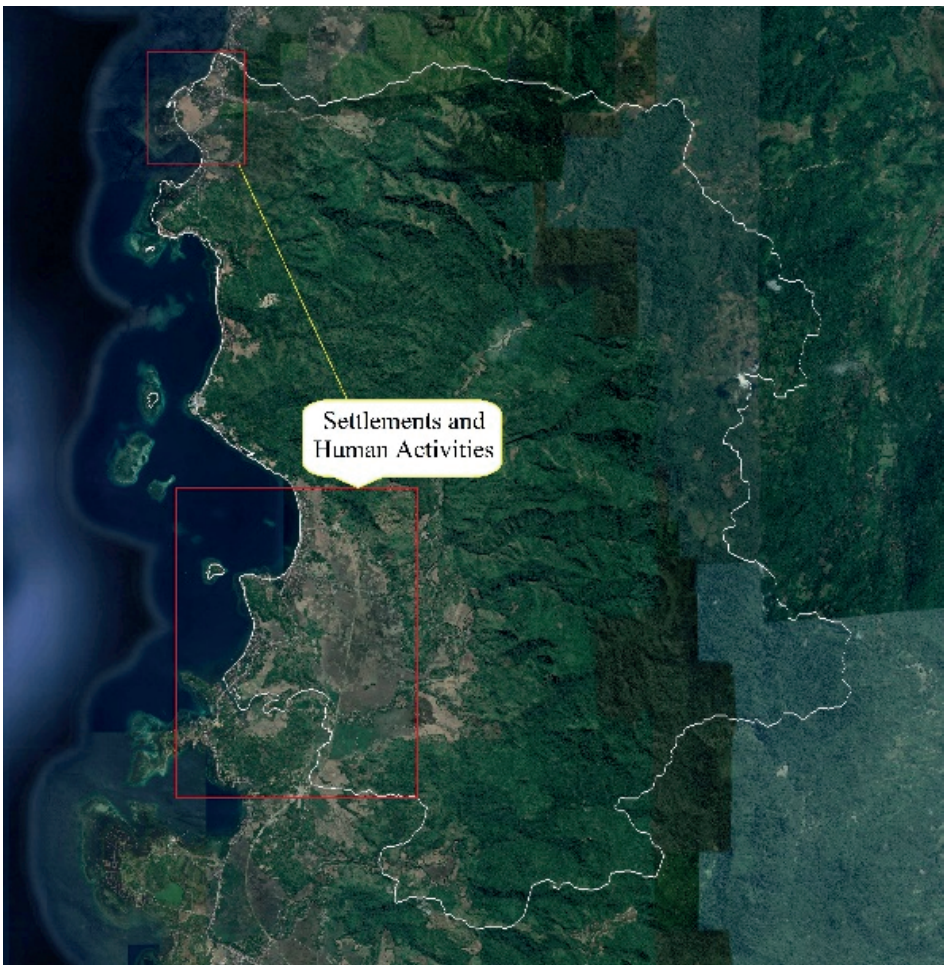

Figure 1: Settlements and Human Activities of Mallusetasi Sub-District Map.

Mallusetasi Sub-District consists of 8 villages including Cilellang, Manuba, Nepo, Palanro, Mallawa, Kupa, Bojo and Bojo Baru with a total area of 216.58 km^2. Of the 8 village, 6 are in coastal areas and 2 are non-coastal. In 2021, the population of Kecamatan Mallusetasi was 27,363 people with 7,429 households. The economic products of the people of Mallusetasi Sub-District are agriculture, livestock, and fisheries. Agricultural products found in the Mallusetasi Sub-District area are paddy rice, field rice, corn, and beans. Livestock products include cows, buffaloes, horses, goats, local chickens, purebred chickens, and ducks. Fishery products include sea fish and shrimp.

Looking deeper into the problems found in Mallusetasi Sub-District, environmental problems in the coastal area are an important issue considering the beauty of the beautiful coastline of Barru District and the abundant potential for fish. However, from the findings obtained in the field, there is a lot of coastal environmental pollution that threatens community settlements and the potential of marine fisheries, namely the accumulation of garbage that empties into the sea. Garbage, which is the main problem causing environmental pollution, causes the coastal area around the beach and residential areas to become dirty. The collection of garbage comes from household waste, wood scraps to other inorganic waste. World Health Organization (WHO) [13] revealed that waste is something that is not used, not liked or something that is discarded that comes from human activities and does not occur by itself. Ironically, this waste is sometimes left unattended and people living in coastal areas are accustomed to these conditions. Household waste in question is solid waste that comes from the rest of daily activities in the household, excluding feces and specific waste and from natural processes originating from the household environment [13].

Based on the results of interviews with residents in Mallusetasi Sub-District who live around the coast, the condition of garbage scattered both around the coast and at sea is a daily sight of the community. Coastal communities have become accustomed to it because every day the sea brings in a lot of garbage that never stops. Every day, the people of Mallusetasi clean their neighborhood from the garbage that comes from the sea. They said that the garbage comes from the rivers and seas around the Pare-Pare City area which empties into their beach. The garbage, no matter how cleaned, will accumulate again because of the behavioral patterns of the people who are not sensitive to the environment. An overview of the condition of the settlements of people living on the coast can be seen in Figures 2 and 3.

(2) (3)

Figure 2: Settlement Condition in Coastal Areas of Mallusetasi Sub-District.

The conditions seen in figures 2 and 3 are the conditions of garbage due to sea water overflow accompanied by heavy rain. This resulted in many settlements becoming puddles of garbage. Researchers tried to explore the condition of the area around the coast, namely in the river channel that empties into the coast of Mallusetasi Sub-District. It can be seen at several points in Mallusetasi Sub-District that there are many piles of garbage on the banks of the river. These piles are deliberately left unmanaged to be disposed of in temporary or final landfills. Based on the results of interviews with people who live around the river channel said that the collection of garbage is the behavior of irresponsible people. This reason is reinforced by the narrative of one of the community members who saw that people from different villages were dumping garbage around the riverbank. They act at night when the streets around the river are quiet. There are also those who say they deliberately throw the garbage there because they think the area is a garbage dump. According to the Theory of Planned Behavior popularized by [14,15] behavior is formed because of control, which means that before acting a person will assess the response he does based on his knowledge, experience, and the impact it has so that someone will determine whether to do it or not.

Other findings also revealed the unavailability of temporary disposal sites and the absence of mobile garbage collectors or the like, so coastal communities dispose of their household waste directly into the sea. They assume that the waste will be brought back to the sea. Of course, this condition is based on the habits of the people who are accustomed to the condition of endless waste. If traced to the human level as an individual, they are encouraged to clean the environment where they live from the garbage that comes from the sea and this pattern occurs every day. Evidence that the people of Mallusetasi Sub-District have a desire to preserve the environment is that every morning and evening they reduce puddles of burnable garbage such as dry garbage, take wood from the sea to make items such as tables and chairs. This tendency occurs when an individual is ready to face a response to adjust himself. [16,17]. At this level, an individual is moved to keep the surrounding environment beautiful and comfortable. Apart from their habit of throwing garbage in the sea or river, this is due to the unavailability of temporary shelters and lack of awareness of the importance of protecting the environment.

The motive of people who throw garbage in the sea or river can simply be summarized as an affordability to achieve goals. According to the theory of Lawrance Green et al [18,19] motive is an enabling factor for the behavior. They do not pay attention to the consequences that will occur because they are used to it and the activity continues to repeat itself. At the community level, the people of Mallusetasi Sub-District are very

active in protecting their coastal environment. Reflected in Figure ??, they work together to clean the beach.

Figure 3: The community works together to clean up trash in coastal settlements.

The above condition shows the cooperation of the community to clean up their environment from garbage because of the climate disaster phenomenon. At the community level, the people of Mallusetasi Sub-District, both young and old, help each other to normalize their environment. An incident can shape the attitude of helping and working together. They voluntarily clean up garbage from one house to another for reasons of togetherness and mutual comfort. The findings that have been described illustrate that at the individual level, the community shows a low attitude in preserving the environment. This is based on the unavailability of temporary disposal sites, which should be the responsibility of local officials, namely the village head. The unavailability of this temporary disposal site will make it difficult for the community to reduce their household waste so that the practical way is to dispose of it in the sea or river. At the community level, people are very active in environmental conservation activities from waste for reasons of comfort and cleanliness. This behavior is formed by the existence of a disaster that occurs regularly every year so that it forms a habit of cooperation.

4. Conclusion

Ecological behavior in coastal communities in Mallusetasi Sub-District includes already leading to actual ecological behavior. However, when viewed at the individual level, there is a need for awareness to protect the environment where they live and pay attention to the consequences that will occur when they pollute the environment. Of course, in this case the treatment that must be done immediately is the provision of temporary shelters and mobile janitors to minimize the behavior of people who like to throw garbage in the river or the sea. At the community level, the formation of cooperation behavior in environmental preservation is shown when there is a tidal disaster and heavy rain that brings a lot of puddles of garbage into their settlements. They work together to clean up the puddles of garbage with the aim of cleanliness and comfort of their environment. This behavior should be further improved not only when a disaster occurs, but there needs to be periodic activities such as beach clean-up actions that can be implemented by the local government.

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