
**THE EFFECT OF AWARENESS AND EDUCATION TO THE COMMUNITY
ON THE PLASTIC WASTE POPULATION AT THE TANJUNG HARAPAN
NUNUKAN LANDFILL**

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Abstract

Waste is a leftover material from activities that is thrown away as a result of the production process, both in industry and households. Waste is a very common problem in the global community, as well as what happens in Nunukan, precisely in the Tanjung Harapan Nunukan landfill. The purpose of this study is to find out how public awareness in the Tanjung Harapan Landfill and what education is provided to the people of the Tanjung Harapan Nunukan Landfill related to the increasing waste population in the area. The research method used is qualitative research with descriptive observational design. Research techniques were carried out by means of field surveys, focus group discussions involving participants, and open interviews. The participants used in this study are residents living around the Tanjung Harapan Landfill and the Nunukan community. The results of the study stated that in several parts of the area in Nunukan seminars or education have been carried out about plastic waste processing and also the dangers of plastic waste that continues to accumulate. However, the provision of education to the community is not enough to cover all parts of the Nunukan area, so there are still many people who are not aware of this. The hope in the future is that education to the people of Nunukan can be carried out more widely so that awareness of the Nunukan community grows, so that the population of plastic waste in the Tanjung Harapan landfill can be reduced.

Keywords: Awareness, Education, Plastic waste.

INTRODUCTION

Waste is a material that is wasted or discarded from human activities or natural processes that have no economic value, It can even have a negative value because in handling it either to dispose of it or clean it requires considerable costs. In addition, the characteristic of garbage is odor, garbage can also cause diseases such as diarrhea, and many more. Every human activity must produce waste or garbage. As a city grows, so does the burden that the city must accept.

One of them is the burden caused by waste produced by urban communities collectively. For big cities, waste will have various negative impacts if it is not handled properly and seriously, which can result in adverse or unexpected changes in the environmental balance so that it can pollute the environment both to soil, water and air. Effective and efficient waste management must be carried out by all parties, both the community and the government. All of these parties are responsible for waste handling so that they no longer cause problems.

Plastic waste is indeed one of the big problems in Indonesia. Nunukan Regency is no exception, which is located in North Kalimantan, Facing quite serious waste management problems. With the rapid population growth and urbanization, the volume of waste produced is increasing. The waste management system in this area is still limited, so a lot of waste is not managed properly. This results in the accumulation of waste in public places and the environment, which has the potential to

pollute the soil and cause public health problems Recycling and waste reduction programs still need to be improved in order to reduce negative impacts on the environment.

According to *the North Kalimantan newspaper* - the Tanjung Harapan landfill in South Nunukan District, accommodating an average of 23 tons to 25 tons of waste every day. Waste transported to landfills is dominated by plastic waste. The waste is estimated to reach 80% compared to other types of waste. This is because the use of plastic bottles for seaweed buoys is very high.

Based on the results of monitoring in the field, there are still residents who throw garbage at the designated place and time of disposal. This causes garbage to be scattered outside the place that has been provided. If this is not overcome quickly, it will cause many adverse impacts on the community and the environment in Nunukan.

One of the main causes is the lack of public awareness about waste management and the importance of maintaining environmental cleanliness. A lot of plastic waste such as bottles, bags, and food wrappers are thrown away carelessly and eventually carried away by the current into the sea. This threatens marine ecosystems and biota life, such as fish and turtles, which are often trapped or mistaken for plastic.

In addition, fisheries and tourism activities are also affected, as pollution can reduce the quality of marine products and reduce tourist attractions. Efforts to address this problem include increasing public education, strengthening waste management regulations, and collaboration between the government, non-governmental organizations, and local communities to clean up beaches and raise awareness about the impact of plastic waste.

This condition requires serious attention from the government and the community to achieve sustainable solutions, including improving waste management infrastructure, education on the importance of cleanliness, and collaboration between various parties to create a clean and healthy environment. The role of the community is very important in this waste problem, because if the human population increases, the waste population in Nunukan will also increase. Therefore, there is a great need for public education and awareness about the importance of protecting the environment, especially waste. And it is hoped that this problem can be overcome and the environment in Nunukan will become cleaner.

The problem of plastic waste in Nunukan is a big challenge that must be overcome immediately. Comprehensive and sustainable solutions are needed to address these issues, from changing individual behaviour to increasing waste management capacity at the government level. With the cooperation of all parties, it is hoped that the plastic waste problem in Nunukan can be solved and the environment becomes cleaner and more sustainable.

With the existence of this waste problem in Nunukan, we will make a study on "The Influence of Awareness and Education to the Community on the Plastic Waste Population in the Tanjung Harapan Landfill"

LITERATURE REVIEW

Definitions

1. Awareness

Self-awareness is the ability to recognize feelings and why a person feels the way they are and the influence of one's behavior on others. Quoting from Malikah's research in his psychology journal, Soemarno Soedarsono explained that self-awareness is the embodiment of a person's personal identity that can be called an identity when in the person concerned is reflected in the

appearance, sense of creativity and karsa, value system, attitude, and behavior that he has. According to Goleman, self-awareness is knowing what we are feeling at a moment, and using it to guide our own decision-making; have realistic benchmarks of self-ability and strong confidence.

2. Education

Education is the addition of a person's knowledge and abilities through learning or instruction practice techniques, with the aim of remembering real facts or conditions, by giving encouragement to self-direction, actively providing new information or ideas (Suliha, 2012).

3. Population

According to V. Wiratna Sujarweni (2014) said that a population is an entire number consisting of objects or subjects that have certain characteristics and qualities that are determined by researchers to be studied and drawn conclusions.

Factors that affect public awareness of plastic waste

1. Knowledge

The level of education and information received by the community plays an important role in forming awareness of the environment. People who have education tend to understand more about the negative impact of plastic waste.

2. Attitudes and Behaviors

A positive attitude towards the environment can encourage pro-environmental actions, although there are still many who are less concerned, but people's behavior in managing waste needs to be improved.

3. Education

Sustainability education programs from the government and the private sector are needed to increase public awareness and behavior towards plastic waste.

Indicator

1. Awareness Indicators

Indicators of public awareness of the influence of education in reducing the plastic waste population include:

Knowledge: The level of public understanding of the impact of plastic waste and how to manage it, such as sorting and recycling.

Attitude: Positive perception of the environment and desire to participate in plastic waste reduction programs.

Action: active participation in environmental activities, such as the use of eco-friendly bags and waste management at the source.

Continuing Education: The existence of an effective socialization program that increases public awareness and involvement in the issue of plastic waste.

Community Involvement: Participation in local groups or initiatives that support plastic waste reduction.

2. Educational indicators

Public education about plastic waste management plays an important role in increasing environmental awareness. Educational programs involving lectures and hands-on practice proved effective, with results showing increased participants' knowledge about waste types and their impacts. In addition, counseling carried out in various communities has succeeded in increasing public understanding and involvement in waste management, including the application of the 3R

(Reuse, Reduce, Recycle) principle. Active community involvement and ongoing support are needed to achieve significant behavioural change towards plastic waste reduction.

3. Population indicators

Population indicators on the influence of public awareness and education on plastic waste management include:

Level of Awareness: People who are more aware of the impact of plastic tend to reduce their use and participate in waste management programs.

Participation in Education: Educational programs that involve the community, especially children, have been shown to increase awareness and behavior change in waste management.

Behavioural Change: After education, the community showed an increase in sorting and reducing the use of single-use plastics.

Ongoing education is needed to maintain this awareness.

RESEARCH METHOD

Based on the problems raised by the researcher, this research is a research with a qualitative approach with a descriptive type of research. The data sources used consist of primary data with secondary data with techniques and data collection, namely observation, interviews and documentation. We will go to the place to be observed and then collect all the data from the results of interviews with some of the people we have interviewed.

RESULTS AND DISCUSSION

Researchers have conducted their research through qualitative methods with interviews with the community and on-site surveys. The results of surveys and interviews conducted by researchers show that most of the people around the Tanjung Harapan Nunukan Landfill have begun to understand the dangers of plastic waste to the environment, especially its impact on soil, water, and marine ecosystem pollution. However, this awareness is still not followed by real actions, such as sorting waste in households. Many think that waste management is the responsibility of the government, so their participation is limited. Only some routinely sort waste, while the rest do not understand the importance of this step.



Figure 1. Tanjung Harapan Nunukan Landfill

Educational programs provided to the community, such as the increasing dangers of waste and also the correct way to dispose of plastic waste, can help increase public awareness and sense of responsibility. In addition, a change in mindset towards the use of plastics other than use is starting

to be seen. Some people are starting to switch to using shopping bags, drinking bottles, and straws that are more environmentally friendly, although limited access to these products is still an obstacle.

Participation in community-based programs, such as waste banks, also has a positive impact. Community-based education encourages more residents to be actively involved, creating solidarity in protecting the environment.

However, high awareness is more found in people with better levels of education, which shows the importance of the role of education in instilling environmentally friendly habits. In addition to environmental aspects, awareness of economic opportunities from plastic waste is also starting to grow. Some residents use plastic waste to make handicrafts or recycled materials of economic value, providing additional motivation for better waste management.

The Impact of Education Programs on Waste Management

Educational programs carried out in several communities, such as socialization of plastic hazards, recycling training, and the introduction of waste banks, have shown positive impacts. Some residents who participated in this program began to sort waste from home, and the population of plastic waste in the landfill has decreased. This proves that community-based approaches are effective in increasing community engagement.

In addition, this program also succeeded in increasing collective awareness, where residents began to take the initiative to hold mutual cooperation activities to clean the environment from waste, especially plastic waste. Thus, education not only changes the behavior of individual people, but also creates solidarity in waste management together.

Furthermore, the education program also encourages the creation of innovation in the community in plastic waste management. Some residents began to use plastic waste as a business, for example they used plastic bottles to look for seaweed. This innovation not only helps reduce plastic waste, but also provides new economic opportunities for the community. On the other hand, training on plastic recycling also gives rise to community groups that actively act as agents of change, educating neighbors or other community members about the importance of waste management.



Figure 2. Waste bank in Tanjung Harapan Nunukan



Figure 3. Results of processing plastic waste into Seaweed Buoys

However, the impact of this educational program still faces obstacles in several community groups. Although socialization has been carried out, there are some residents who have not been actively involved, especially those who do not have free time or feel that waste management is not their priority. Therefore, there is a need for a more personalized education strategy, such as home visits or integration with routine community activities, such as RT meetings, to ensure that all levels of society are involved in sustainable waste management.

CONCLUSION

Most of the people around the Tanjung Harapan Landfill, Nunukan, have begun to understand the dangers of plastic waste to the environment, especially its impact on soil, water, and marine ecosystem pollution. Therefore, every year the community around the Tanjung Harapan Landfill will hold a seminar on waste plastic awareness. Since the seminar was held, local residents have always thrown their garbage on the spot Appropriately or in garbage cans and then collected to be transported to landfills. Some residents who participated in this program began to implement positive actions regarding plastic waste management. Some residents who have started to use their plastic waste management have made a business, for example they recycle plastic bottles to be used as buoys for seaweed farmers. This innovation not only helps reduce plastic waste, but also provides new economic opportunities for the community. On the other hand, training on plastic recycling also gives rise to community groups that actively play a role in the change agenda, educating neighbors or community members who use plastic waste to make handicrafts or recycling that have economic value such as buoys for seaweed and others can provide additional motivation for better plastic waste management. But behind it all, there are still some people who are not sufficiently educated and aware of the dangers of plastic waste. For this reason, it is necessary to improve the education strategy to the community. The hope in the future is that education to the people of Nunukan can be carried out more widely so that awareness of the Nunukan community grows, so that the population of plastic waste in the Tanjung Harapan landfill can be reduced.

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