

## COMMUNITY PARTICIPATION IN REDUCING THE RISK OF WASTE POLLUTION IN TANJUNG BARU VILLAGE, TANJUNG MORAWA DISTRICT

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### ABSTRACT

This study aims to determine the form of community participation in reducing the risk of waste pollution in Tanjung Baru Village, Morawa District. The problem of village waste is a critical issue because it can have negative impacts on health, the environment, and the quality of life of the community if not handled properly. This study used a qualitative descriptive approach with observation, interviews, and documentation methods to explore community participation in maintaining environmental cleanliness. The results show that community participation is manifested in various forms, including household waste management, mutual cooperation activities to clean the environment, the utilization of organic waste into compost, and awareness of disposing of waste in the provided bins. Obstacles faced by the community include limited waste management facilities, lack of knowledge about the impacts of waste, and low awareness of some residents. Nevertheless, in general, the community shows a fairly good concern in efforts to reduce the risk of village waste pollution. Thus, the active role of the community is very important and needs to be increased through counseling, mentoring, and the provision of adequate waste management facilities to create a clean, healthy, and sustainable village environment.

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### INTRODUCTIONS

The environment is one of the important aspects that must be maintained so that it can be used by current and future generations. Environmental pollution due to village waste is one of the problems that often arise in the lives of rural communities. Waste that is not managed properly can cause serious problems, both for public health and the

quality of the ecosystem. Therefore, waste management requires the active involvement of all elements of society (Suryani, 2019).

Community participation in environmental management includes various forms of involvement, such as awareness of maintaining cleanliness, participation in mutual cooperation activities, and reusing organic waste into useful products. This collective effort is urgently needed to prevent widespread environmental pollution. With active participation, it is hoped that a clean, healthy, and comfortable environment will be created to live in. This also supports the achievement of sustainable development (Lubis, 2020).

As Allah says in QS. Al-A'raf verse 56:

وَلَا تُفْسِدُوا فِي الْأَرْضِ بَعْدَ إِصْلَاحِهَا وَادْعُوهُ خَوْفًا وَطَمَعًا إِنَّ رَحْمَتَ اللَّهِ قَرِيبٌ مِنَ الْمُحْسِنِينَ

Means: "And do not make any damage on the earth after it has been repaired, and pray to Him with fear and hope. Indeed, Allah's mercy is very near to those who do good." (QS. Al-A'raf: 56). (Kementerian Agama RI, 2019).

This verse provides a warning so that humans do not destroy the earth that God has created in a balanced and good state. The prohibition on doing damage covers various aspects, including damaging the environment by littering, cutting down forests uncontrollably, or polluting that has a negative impact on life. Rather, humans are commanded to protect, preserve, and prosper the earth. In the context of environmental management, this verse emphasizes that the active participation of the community in maintaining cleanliness, working together, and reusing waste is a tangible manifestation of obedience to Allah. These efforts are part of righteous deeds that will bring His grace.

In addition to the participation factor, public knowledge about the impact of waste also greatly affects their behavior in managing waste. People who understand the negative impact of waste tend to be more concerned about good management. On the contrary, low levels of awareness and knowledge can be an obstacle to achieving a clean environment. Therefore, environmental education is an important part of increasing public awareness (Simanjuntak, 2022).

The problem of environmental pollution due to village waste not only has an impact on public health, but also on the quality of soil and water. Waste that accumulates and is not managed can reduce the productivity of agricultural land. This certainly has an impact on the economy of the village community, most of which still depends on the agricultural sector. Therefore, waste management needs to be carried out in an integrated manner so that the impact does not spread (Hidayat, 2018).

Community participation in reducing the risk of village waste pollution also reflects the level of social awareness and concern for the environment. This involvement can be individual or collective, ranging from disposing of waste in its place to being involved in waste treatment. This involvement shows a sense of shared responsibility to preserve the environment. Thus, waste management efforts become more effective (Zulkarnain, 2019).

This research is important to be carried out in Tanjung Baru Village, Tanjung Morawa District because this village has distinctive characteristics, with diverse community activities and a fairly high potential risk of waste pollution. The results of the study are expected to provide an overview of the extent of community participation in reducing pollution risks. In addition, this research is also expected to be an input for the village government in formulating environmental policies. Thus, the waste problem can be overcome in a sustainable manner (Putri, 2021).

Community participation is the active involvement of individuals and groups in every aspect of development that occurs in their environment. According to Soetomo (2015), participation includes community involvement in the form of energy, thoughts, and materials to achieve common goals. This participation is an important key in various development activities, especially those related to the public interest. Without community participation, development is often just a top-down program that is difficult to implement effectively. Therefore, the theory of participation emphasizes the existence of mutual interaction between the government and society.

In the context of environmental management, community participation is needed to maintain the cleanliness and health of the surrounding environment. Public awareness in disposing of waste in its place is a form of simple participation that has a big impact on pollution reduction. In addition, community involvement in mutual cooperation activities also shows a sense of ownership of the environment. This participation functions as a tangible manifestation of social responsibility in preserving the environment. Thus, community participation is not only physical, but also includes moral and social aspects.

Community participation can be divided into several forms, namely direct and indirect participation. Direct participation occurs when the community is directly involved in an activity, such as environmental cleaning, waste management, and greening. Meanwhile, indirect participation can be in the form of moral support, the submission of ideas, or financial contributions. These two forms of participation complement each other in realizing environmental development goals. According to Mardikanto (2014), the success of development is greatly influenced by how much community participation is involved.

The level of community participation also varies, starting from the planning stage, implementation, to the evaluation of a program. At the planning stage, community participation is manifested in the form of involvement in deliberation or village meetings. At the implementation stage, the community can play a direct role as a workforce or volunteer in certain activities. Meanwhile, at the evaluation stage, the public can provide input on the success or weaknesses of the program implemented. Thus, the theory of participation emphasizes the importance of community involvement in each stage of development (Nasution, 2020).

Factors that affect community participation include the level of education, knowledge, awareness, and motivation of individuals. People with higher education levels tend to better understand the importance of protecting the environment. However, local cultural factors and the value of mutual cooperation also affect community involvement in social activities. In addition, support from formal and informal leaders can encourage the community to participate more actively. Therefore, community participation does not appear out of nowhere, but is influenced by various social, economic, and cultural factors (Harahap, 2021).

In participation theory, it is also known that there are levels of participation ranging from informative, consultative, to active participation. At the informative stage, the public only receives information related to programs or activities. At the consultative stage, the public can provide input, but the decision is still held by the government or the authorities. Meanwhile, in active participation, the community is fully involved in the decision-making, implementation, and evaluation process. This level shows how far the community is given space to participate in development (Soetomo, 2015).

Based on the description of the theory of community participation, it can be concluded that active community involvement is an important factor in reducing the risk of environmental pollution. Participation is not only seen as a complement to government programs, but as a major part of development success. With participation, people become more independent, responsible, and care about their environment. Therefore, research on community participation in reducing the risk of village waste pollution is very relevant to be carried out. This is expected to be the basis for community-based environmental management policy making (Lubis, 2020).

Social ecology theory explains that humans and the environment are a unit that affects each other. According to Kerat (2010), environmental damage is mostly caused by human activities that do not pay attention to the balance of the ecosystem. In this framework, humans are seen not only as users of natural resources, but also as guardians of environmental sustainability. Therefore, every social and economic activity should consider its ecological impact. Thus, social ecology theory emphasizes the existence of a strong reciprocal relationship between humans and the environment.

Social ecology also emphasizes the importance of local social and cultural values in preserving the environment. Local wisdom, such as the tradition of mutual cooperation in cleaning the village, is a real example of social ecology practices in daily life. This tradition not only serves to maintain cleanliness, but also strengthens social ties between citizens. Thus, cultural values can be a strong driver in community-based environmental management. This shows that social and ecological aspects are inseparable (Nasution, 2020).

The educational factor also plays a very important role in increasing the social ecological awareness of the community. Environmental education can help people understand the long-term impact of waste pollution. With good understanding, people will be encouraged to change environmentally damaging behaviors to environmentally friendly behaviors. Therefore, social ecology theory emphasizes the importance of knowledge transfer from generation to generation. This will ensure the creation of a society that cares more about the environment (Simanjuntak, 2022).

Social ecology views that environmental management is not just an individual responsibility, but a collective responsibility. This means that all parties, both the community, the government, and non-governmental organizations,

must play an active role in preserving the environment. The government has an obligation to make clear regulations, while the public implements them in their daily lives. This collaboration will create a clean, healthy, and sustainable environment. Thus, social ecology theory emphasizes the importance of multistakeholder cooperation (Harahap, 2021).

In the context of waste management, sustainable development theory emphasizes the principle of reduce, reuse, and recycle (3R). This principle aims to minimize waste production, reuse goods that are still viable, and recycle waste into useful products. According to Hidayat (2020), the application of the 3R principle is very important in village development that is oriented towards environmental sustainability. In this way, pollution can be reduced, while opening up new economic opportunities for society. This makes development more inclusive and environmentally friendly.

In addition to environmental aspects, sustainable development theory also emphasizes the equitable distribution of development results. Development must be able to improve the welfare of the community equally, not just certain groups. In this case, waste management can be used as an additional source of income for village communities through circular economy innovations. Sumbayak (2019) stated that sustainable development must have a positive socio-economic impact on all levels of society. Thus, development not only reduces pollution, but also strengthens the local economy.

This theory is also relevant to the global goals of sustainable development or Sustainable Development Goals (SDGs). Indonesia itself has adopted the SDGs as a national development direction that emphasizes poverty alleviation, health, education, and environmental sustainability. In relation to waste pollution, this is in line with SDGs goals number 6 (clean water and sanitation) and number 12 (responsible consumption and production). Thus, the theory of sustainable development can be a conceptual basis in aligning village development with the global agenda. This shows the relevance of the theory in research in Tanjung Baru, Tanjung Morawa District.

Tanjung Baru Village, Tanjung Morawa District, faces challenges in managing household waste and waste of daily community activities. The increase in population and economic activities of the community contribute to the increasing volume of waste produced. This condition, if not handled appropriately, can increase the risk of environmental pollution. Community participation is an important factor in reducing these risks (Harahap, 2021).

Based on the description above, it can be concluded that the theory of sustainable development emphasizes the balanced integration of economic, social, and environmental aspects. Development that does not pay attention to one of these aspects will cause new problems for the community and the environment. Therefore, this theory is important to be used as a basis for understanding community participation in reducing the risk of waste pollution. By applying the principles of sustainable development, villages can create a healthy environment while improving community welfare. This theory is particularly relevant for research related to waste management in rural areas.

## RESEARCH METHODOLOGY

This study uses a qualitative method with a descriptive approach. The qualitative approach was chosen because this study focuses on understanding in depth the social phenomena related to community participation in efforts to reduce the risk of waste pollution. Meanwhile, a descriptive approach was used to describe and analyze various activities, roles, and impacts of community involvement in Tanjung Baru Village, Tanjung Morawa District, in maintaining cleanliness and environmental sustainability without direct intervention from researchers.

In its implementation, the researcher uses several data collection techniques to obtain relevant information about community participation in reducing waste pollution. The first technique used is observation, namely by directly observing the activities of Tanjung Baru Village residents in managing waste. These observations include people's habits in disposing of garbage, their involvement in mutual cooperation activities to clean up the environment, and the implementation of various local programs related to waste management. Through these observations, researchers can assess the extent to which communities play an active role in reducing the risk of pollution in their environment.

Community informants consist of residents of Tanjung Baru Village who are resource persons in the interview, namely individuals who directly experience the problem of waste pollution in their environment. The names



of the informants in this study are Mrs. Sri (51 years old), Mr. Budiman (55 years old), Mr. Khairi Azman (50 years old), Mr. M. Harawi (52 years old), Mr. Yono (54 years old).

Mrs. Sri assessed that waste pollution in Tanjung Baru Village was caused by low public awareness in disposing of garbage, especially because there were still many residents who threw it into rivers and ditches. He actively participates in mutual cooperation activities every two weeks to clean the environment. It is hoped that the village will have an organized waste disposal and a waste bank program that is running well.

According to Mr. Budiman, pollution occurs because irrigation canals are mixed with household waste, so that the water becomes dirty and pollutes agricultural land. Plastic waste is a major source of pollution. She has participated in waste management counseling and took the initiative to process household waste by sorting organic waste for compost and selling plastic to collectors.

Mr. Khairi Azman argued that small businesses and household industries are one of the causes of pollution because they do not have waste treatment facilities. The community generally supports the village cleanliness program, although there are still those who do not care. He suggested that Scounseling be carried out more often and garbage cans be provided on every street so that the community is more orderly in disposing of garbage.

According to Mr. M. Harawi, waste pollution is caused by the behavior of people who do not care about the environment, the lack of waste management facilities, and weak supervision from related parties. The ditches and rivers around his house are often clogged with plastic waste. He actively participated in mutual cooperation and reminded residents not to litter. He proposed sanctions for violators to have a deterrent effect.

Mr. Yono said that pollution is caused by the habits of residents who do not sort waste, small business waste that is not managed, and limited village facilities. He uses kitchen waste to compost and assesses that community awareness is starting to increase, although it still needs support from the village government. He hopes that there will be a waste bank, increased socialization, and assistance with waste management tools.

They represent the views and daily experiences of the community in maintaining cleanliness and dealing with the impact of pollution. In addition, the informants also include village officials such as the Head of Hamlet (Kadus) and the Village Head (Kades). Kadus acts as a liaison between residents in his hamlet and the village government, helping to coordinate cleaning activities, and conveying the aspirations of the community. Meanwhile, the Head of Village has broader responsibilities in setting policies, overseeing the implementation of environmental programs, and ensuring support and facilities to reduce waste pollution in all village areas.

Validation of interview data is carried out by comparing answers between sources to ensure the consistency of information and the accuracy of findings. Every statement from community informants, Kadus, and Kades is analyzed for its suitability with real conditions in the field, such as residents' habits in disposing of garbage, the existence of waste management facilities, and mutual cooperation activities that are routinely carried out. In addition, validation is also strengthened through direct observation of the village environment and records of cleaning activities that have been carried out. Thus, the data obtained is considered valid because it shows the same views between informants and reflects the factual conditions related to waste pollution in Tanjung Baru Village.

The second technique; is an interview, which is conducted directly to the village head, village officials, community leaders, and residents involved in the waste management program. This interview aims to explore in-depth information related to public awareness about the dangers of waste, strategies used in reducing pollution, and obstacles faced in the waste management process in Tanjung Baru Village. With these interviews, researchers get a more comprehensive picture of people's motivations, participation, and perceptions.

The results of interviews with five resource persons in Tanjung Baru Village showed that the main causes of waste pollution in the village were low public awareness in disposing of garbage, mixing irrigation canals with household waste, and lack of facilities and supervision in waste management. The waste that most often pollutes the environment is plastic waste, especially from households and small businesses that do not have a waste treatment plant. Although most residents support the cleanliness program and routinely participate in mutual cooperation activities, there are still some who do not care about environmental cleanliness. Some residents have taken the initiative to manage household waste, such as making compost and selling plastic to collectors. The speakers hoped

that there would be a more organized waste disposal facility, the implementation of the waste bank program, routine counseling, and strict sanctions for violators so that waste pollution in Tanjung Baru Village could be reduced.

The third technique; is documentation, namely by collecting various documents, archives, and supporting data related to waste management in the village. These documents can be in the form of village regulations, reports on cleaning activities, photos of mutual cooperation activities, and records of waste management programs. This documentation serves to strengthen the data from observations and interviews, as well as provide concrete evidence of the efforts of the people of Tanjung Baru Village in reducing the risk of waste pollution.

The data analysis technique in this study uses a qualitative descriptive approach. According to Miles and Huberman (1994), qualitative data analysis is carried out through three main stages, namely data reduction, data presentation, and conclusion/verification. Data reduction is the process of selecting, focusing, simplifying, and organizing raw data obtained from the results of observations, interviews, and documentation related to the participation of the Tanjung Baru Village community. Data that were considered irrelevant were set aside, while data directly related to the focus of the research were retained.

Fourth stage; is the presentation of data, which is organizing information into the form of a descriptive narrative so that it makes it easier for researchers to understand the patterns, relationships, and trends that arise related to community participation in waste management. The presentation of data is carried out systematically to make it easier for readers to understand the research findings.

Fifth stage; is the drawing of conclusions and verification, that is, formulating the core of the research findings as an answer to the formulation of the problem proposed. In this process, researchers continue to verify continuously to ensure that the conclusions obtained are valid and scientifically accountable.

The results of these findings are also supported by several previous studies, such as the research of Sari (2021) which shows that low public awareness is the main factor in environmental pollution in rural areas, the research of Putra and Lestari (2022) which emphasizes the importance of waste management facilities and village government support in reducing pollution, and the research of Rahman (2023) which found that waste bank and environmental counseling programs are able to increase citizen participation in maintaining cleanliness. Thus, the data obtained is considered valid because it shows the same views between informants and is relevant to the results of previous research on waste management at the village level.

To ensure that the data obtained truly describes the real conditions in the field, the researcher applies several data validity techniques. The validity test was carried out by extending the observation time at the research site, increasing diligence in recording and analyzing data, and using triangulation of sources, techniques, and time to compare information from various parties such as village heads, community leaders, and residents of Tanjung Baru Village. In addition, the researcher also conducted discussions with colleagues and conducted member checks by confirming the results of the interview with the informant so that the data obtained was in accordance with reality.

In addition, to ensure that the results of this study are truly trustworthy and relevant in various similar contexts, the researcher also conducted transferability, dependability, and confirmability tests. The transferability test was carried out by explaining in detail the conditions of the research location and the social life of the people of Tanjung Baru Village, so that readers can assess whether the results of this research can be applied elsewhere. The dependency test is carried out by recording the entire research process regularly and transparently so that the results obtained are consistent and easy to trace. Meanwhile, the confirmability test is carried out by maintaining the objectivity of the researcher, namely by storing all supporting data such as interview recordings, photos of activities, and other documents as evidence that the research conclusions are really sourced from field data, not from the researcher's personal opinion.

## RESULTS AND DISCUSSION

### Results

#### Forms of Community Participation in Reducing the Risk of Waste Pollution

The participation of the people of Tanjung Baru Village in reducing the risk of waste pollution can be seen from the involvement of residents in mutual cooperation activities to clean the environment. Every Sunday, residents

together with village officials clean ditches and sewers to avoid clogging of water channels by household waste. This activity was not only attended by adults, but also village teenagers who were involved as a form of education from an early age about the importance of maintaining environmental cleanliness.

Community informants consist of residents of Tanjung Baru Village who are resource persons in the interview, namely individuals who directly experience the problem of waste pollution in their environment. The names of the informants in this study are Mrs. Sri (51 years old), Mr. Budiman (55 years old), Mr. Khairi Azman (50 years old), Mr. M. Harawi (52 years old), Mr. Yono (54 years old).

In addition to mutual cooperation activities, the community also participates in sorting household waste. Some residents have begun to get used to separating organic and inorganic waste before being disposed of. According to the results of an interview with one of the housewives, "Now we are used to separating kitchen waste from plastic, because if it is mixed with a trench, it smells and gets dirty." This shows that there is public awareness to reduce the negative impact of waste on health and the surrounding environment.

Participation is also seen in the form of residents' compliance with village regulations regarding the prohibition of littering. The Head of Tanjung Baru Hamlet in an interview said that there were social sanctions in the form of reprimands for residents who were caught throwing garbage into the river. With these rules, most people have become more disciplined, although there are still a small number who have not complied. This is proof that village regulations play a role in encouraging community participation.

In addition, the community also participates in counseling activities held by the village government in collaboration with the environmental agency. This counseling provides an understanding of the dangers of waste to health and a simple way to manage household waste. A community leader said, "If there is counseling, we are always present, because that way we know how to keep the environment from dirty and smelly." Participation in this educational activity has an effect on increasing residents' knowledge about waste management.

Not only that, some residents also use organic waste to make simple compost which is used as plant fertilizer in the yard of the house. This practice not only reduces the amount of waste, but also provides economic benefits for residents. According to research by Suryani (2020), community participation in waste management through reuse and recycling has been proven to reduce the volume of household waste that pollutes the environment. This shows that small community efforts have a significant impact on environmental sustainability.

Overall, the form of participation of the Tanjung Baru Village community in reducing the risk of waste pollution includes mutual cooperation activities, waste sorting, compliance with village rules, involvement in counseling, and simple innovations in waste utilization. Although the participation rate is not completely even, the collective effort has already yielded positive results in the form of a cleaner environment and reduced risk of pollution.

#### **Factors Affecting Community Participation**

Community participation in reducing the risk of waste pollution in Tanjung Baru Village is influenced by several important factors. The first factor; is the level of public awareness about the impact of waste on health and the environment. The higher the awareness of the residents, the greater their participation in maintaining cleanliness. From the results of an interview with one of the community leaders, "If residents already know the consequences, such as children often getting sick because of a dirty environment, they will be more diligent in participating in mutual cooperation." This shows that awareness is the main factor in encouraging active community involvement.

The second factor; is the support of the village government and its apparatus. The role of village heads, hamlet heads, and other village officials is very important in mobilizing residents. Village officials not only make rules, but also participate directly in cleaning activities with residents. This support is a real example that encourages the community to participate. A resident said, "If the head of the hamlet intervenes, we will be ashamed if we don't participate in community service." Thus, local leadership has a great influence on community participation.

The third factor; is the availability of facilities and infrastructure. Community participation will be higher if adequate facilities are available, such as temporary garbage dumps, garbage cans in each house, and access to garbage transportation by the village. In Tanjung Baru Village, there are still limited facilities, so some residents still have difficulty throwing garbage in the right place. This limitation is sometimes an obstacle for residents who want to participate more optimally.



The fourth factor; is environmental education and counseling. Public knowledge about how to manage waste correctly affects the level of participation. Counseling conducted by the village government and related parties has proven to be effective in increasing residents' understanding. One of the housewives said, "If there is counseling, we will know how to separate the garbage, so we will be more enthusiastic about participating in the activity." This shows that counseling plays a driving factor in environmental participation.

The fifth factor; is the socio-economic condition of the community. Residents with a better economic level tend to be more able to provide their own garbage cans or participate in recycling programs. On the other hand, residents with weak economies are more focused on meeting their daily needs, so their participation in environmental activities is relatively limited. According to Hidayat's (2019) research, socio-economic factors have a significant influence on community participation in protecting the environment, where the level of education and income are closely related to the level of citizen involvement.

Overall, factors that affect the participation of the Tanjung Baru Village community in reducing the risk of waste pollution include community awareness, village government support, availability of facilities and infrastructure, education and counseling, and socio-economic conditions. These factors are interrelated and contribute to shaping the pattern of community participation, so that environmental management efforts can run more optimally.

#### **The Impact of Community Participation on Waste Pollution Risk Reduction**

Community participation in Tanjung Baru Village has a real positive impact on reducing the risk of waste pollution. The first impact; make the environment cleaner and healthier. Through routine mutual cooperation activities, residents have succeeded in reducing the garbage that accumulates around their homes and village roads. A resident said, "In the past, there was a lot of garbage scattered, now it has been much reduced because we often do community service." This shows that active participation contributes to improving environmental cleanliness.

The second impact; is an increase in the collective awareness of residents about the importance of protecting the environment. Participation in cleaning activities makes the community more concerned and disciplined in managing household waste. Residents who previously threw garbage carelessly began to get used to sorting and putting garbage in its place. This collective awareness is one of the social capital in creating a healthier and more comfortable environment.

The third impact; is a reduced risk of diseases caused by environmental pollution. The garbage that accumulates can become a nest of mosquitoes and cause various diseases such as dengue fever and diarrhea. With the increase in community participation in cleaning the environment, cases of diseases due to environmental pollution in Tanjung Baru Village can be suppressed. One of the posyandu cadres said, "Children now rarely get sick with diarrhea than before, maybe because the environment is cleaner."

The fourth impact; is the strengthening of social ties of the community. Joint cleaning activities not only have an impact on the environment, but also strengthen relationships between residents. Togetherness in mutual cooperation creates a sense of solidarity, mutual care, and shared responsibility. This is important as social capital in maintaining the sustainability of participation.

The fifth impact; is the creation of a culture of clean living among the community. When participation is carried out in a sustainable manner, the habit of protecting the environment becomes part of the lifestyle of residents. According to Lestari (2020), sustainable community participation can form a culture of clean living that has a long-term impact on environmental quality and public health. This is in line with the conditions in Tanjung Baru Village, where community participation has begun to lead to the habit of maintaining cleanliness every day.

Overall, community participation in reducing the risk of waste pollution has a significant impact, both on environmental, health, social, and cultural aspects. This positive impact shows that the active involvement of residents is the main key in realizing sustainable environmental management at the village level.

#### **Discussion**

##### **Forms of Community Participation in Reducing the Risk of Waste Pollution**

One of the most visible forms of community participation is involvement in mutual cooperation activities to clean the environment regularly. Residents of Tanjung Baru Village regularly carry out community service work to clean waterways, pick up garbage around settlements, and repair temporary dumps. Although it is simple, this activity plays



an important role in preventing the accumulation of waste that can pollute the soil and water. This mutual cooperation activity is also a means of strengthening collective awareness and fostering a sense of mutual responsibility for the cleanliness of the village environment.

The community has also begun to be involved in household-based waste management, such as sorting organic and inorganic waste before it is disposed of. Some residents have applied the 3R (Reduce, Reuse, Recycle) principle independently, although the scale is still limited. In addition, the existence of waste banks managed by local community groups is a form of more organized participation. Through waste banks, residents can exchange inorganic waste for certain incentives, thereby fostering motivation not to litter while supporting the circular economy at the village level.

Another form of participation is the involvement of residents in environmental education and advocacy activities. PKK women's groups, youth youth organizations, and community leaders often hold counseling on the impact of waste pollution on health and the environment. They also actively voice the importance of behavior change to other residents through citizen discussions, social media, and village forums. This participation reflects public awareness that pollution risk reduction is not enough with physical action alone, but must also be supported by a consistent change in mindset and clean living culture.

#### **Factors Affecting Community Participation**

The level of community participation in reducing the risk of waste pollution is greatly influenced by the level of environmental knowledge and awareness possessed by residents. People who understand the negative impact of waste on health and environmental sustainability tend to be more active in pollution prevention activities. On the other hand, the low understanding of the importance of waste management often makes people less concerned and tend to throw garbage carelessly. Therefore, environmental education, both formal and informal, is an important factor in encouraging citizen involvement.

In addition, economic factors also affect the extent to which communities are involved in waste reduction efforts. For some residents, especially those with low incomes, waste management is not a priority because it is considered not to provide direct benefits. However, when waste management programs such as waste banks are able to provide economic value, participation tends to increase. Involvement in activities that provide real incentives, even if small, can motivate people to care more about cleanliness and the surrounding environment.

Leadership factors and support from the village government or community leaders also play an important role in shaping citizen participation. Leadership that is responsive and able to set concrete examples will encourage people to follow. In addition, the existence of local policies, such as village regulations regarding waste disposal, as well as supporting facilities such as segregated bins or good waste transportation systems, also create favorable conditions for community participation. Without this structural support, the morale of residents tends to decline because they feel that their efforts do not receive clear attention or follow-up.

#### **The Impact of Community Participation on Waste Pollution Risk Reduction**

The active participation of the community in waste management in Tanjung Baru Village has had a real impact on reducing the risk of environmental pollution. Through mutual cooperation activities, waste sorting, and waste bank management, the volume of waste that is disposed of carelessly can be significantly reduced. The environment becomes cleaner, the waterways are not clogged, and the unpleasant odors that previously appeared often began to decrease. This shows that the direct involvement of residents is able to create positive changes in the surrounding environmental conditions.

In addition to the physical impact, community participation also affects changes in behavior and clean living culture. Awareness of not littering is starting to grow, especially among children and adolescents who are exposed to environmental education from an early age. Residents are starting to get used to sorting waste and maintaining cleanliness around their homes and public facilities. This culture is a strong social capital in building collective habits to protect the environment in a sustainable way, not just in the short term.

Other impacts can be seen from increasing social solidarity and a sense of shared responsibility between citizens. Environmental activities are a space for interaction that strengthens social relationships and strengthens cooperation between individuals and between RTs. Participation in waste management has also given rise to citizen

initiatives in developing local solutions, such as household composters and the reuse of organic waste for fertilizer. Thus, community participation not only impacts the physical environment, but also strengthens social capacity and sustainable development at the village level.

### **Final Results**

The basics and reasons for the results of this study show that the participation of the Tanjung Baru Village community in efforts to reduce waste pollution departs from awareness of the importance of protecting the environment. This awareness arises because people are beginning to feel the negative impact of careless waste disposal, such as bad odors, clogged waterways, and reduced health quality. Therefore, the main reason underlying the results of the research is the need for the community to create a clean, healthy, and comfortable environment for the sake of coexistence.

The discussion also explained that the results of this research not only explain the facts in the field, but also relate them to the meaning and reasons behind every action taken by the community. For example, the existence of waste management activities is not only aimed at cleaning the environment, but also reflects the collective awareness to preserve nature. Thus, the results of this study show a close relationship between the real actions of the community and the values that underlie them.

In addition, the community is also invited to carry out mutual cooperation activities as one of the main strategies in reducing waste pollution. Gotong royong is considered an effective means to strengthen cooperation between residents while increasing a sense of mutual responsibility for environmental cleanliness. Through this activity, the community not only contributes physically to cleaning the environment, but also socially builds solidarity in facing the problem of waste pollution.

Other efforts discussed were the provision of garbage cans and the establishment of waste banks in the community. The existence of waste bins makes it easier for residents to dispose of waste in its place, while waste banks function as a container for waste management with economic value. Through waste banks, the community is not only able to reduce the amount of waste that pollutes the environment, but also derives economic benefits from the results of the management. This is clear evidence that community-based waste management is able to provide dual benefits, both environmentally and economically.

The impact of community waste can also be controlled through active participation and the implementation of appropriate strategies so that waste pollution into rivers can be reduced. With awareness and collective action, the community is able to suppress the potential for pollution that was previously difficult to overcome. This is important considering that the river is the main source of water that greatly affects the daily lives of the people of Tanjung Baru Village. Therefore, the success of waste control through community participation not only has implications for a cleaner environment, but also supports the maintenance of health and sustainability of the ecosystem in the region.

## **CONCLUSION**

Community participation in Tanjung Baru Village has made a significant contribution to reducing the risk of waste pollution. This can be seen from increasing residents' awareness of the importance of maintaining environmental cleanliness, the implementation of routine mutual cooperation activities, and the existence of citizen initiatives in managing household waste better. Factors that affect community participation include environmental awareness, support from community leaders, local leadership, and the direct benefits felt by residents. The higher the understanding and social support obtained, the greater the involvement of the community in maintaining the cleanliness of the environment. The impact of community participation is very real, including reducing garbage piles, decreasing the risk of disease, improving the quality of environmental health, and forming a culture of clean living and a sense of togetherness. Thus, community participation is an important social capital in an effort to create sustainable environmental development at the village level.

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