# Implementation of Environmental Pollution Control Policies in Youtefa Bay, Jayapura City

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## Abstract

This study aims to determine and analyze the implementation of environmental pollution control measures in Yotefa Bay, Jayapura City, along with the supporting and inhibiting factors. The research method used was qualitative with a descriptive approach. Data collection techniques included interviews, observation, literature review, and documentation. Data analysis included data reduction, data presentation, and conclusion drawing. The results show that the implementation of environmental pollution control policies in Yotefa Bay is influenced by various factors, such as communication, resources, disposition, and bureaucratic structure. Although the government has attempted to involve the community and raise environmental awareness, challenges such as budgetary constraints, limited human resources, and bureaucratic complexity remain obstacles. To achieve greater success, inter-agency coordination, transparency in decision-making, and active community participation are necessary. Furthermore, supporting factors such as the presence of a trained team, government support, and increased public awareness are crucial. However, challenges such as low public awareness, inadequate infrastructure, and weak coordination must also be addressed. With comprehensive measures including increased budgeting, environmental education, and inter-agency collaboration, efforts to maintain cleanliness and environmental sustainability in Youtefa Bay can be more effective and sustainable for future generations.

**Keywords**: Policy Implementation, Mitigation, Environmental Pollution, Youtefa Bay, Jayapura City, Papua.

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## 1. Introduction

The environment is a complex system encompassing interactions between biotic, abiotic, and anthropogenic components. Keraf (2010) defines it as a spatial unity with all objects, forces, conditions, and living creatures, including humans and their behavior, that influence the continuity of life and the well-being of humans and other living creatures. This concept emphasizes the holistic nature and interdependence of various environmental elements. Rusdina (2015) classifies environmental components into three main categories: 1) physical (abiotic) components: including non-living elements such as soil, water, air, minerals, and energy; 2) biotic components: encompassing all living organisms, including microorganisms, flora, and fauna; and 2) cultural components: relating to social, cultural, and technological aspects developed by humans.

In the context of sustainable development, the interaction between these three components is a primary focus. Manik (2018) highlights that development processes inevitably have impacts, both positive and negative, on the environment. Positive impacts, such as improved infrastructure and access to basic services, can improve the quality of human life.

However, negative impacts, such as environmental degradation and natural resource depletion, need to be addressed comprehensively to ensure sustainability.

Pramudyanto (2014) observed a positive correlation between modernization and the level of environmental damage. In the early stages of development, environmental damage tends to increase, but after reaching a certain turning point, awareness and capacity to manage the environment also increase. To address this challenge, the Indonesian government has developed a legal and policy framework for environmental management. Law Number 23 of 1997 concerning Environmental Management serves as the primary foundation for environmental conservation efforts in Indonesia. This law adopts the principles of sustainable development and integrates economic, social, and environmental aspects into national development planning.

One crucial issue in environmental management is water pollution. Jayapura City, as the center of economic growth in Papua Province, faces a classic dilemma between economic development and environmental preservation. Rapid industrial growth and urbanization have placed significant pressure on local ecosystems, particularly the rivers flowing into Youtefa Bay. This phenomenon aligns with the concept of "Urban Metabolism," where cities are viewed as systems that consume resources and produce waste.

Jayapura City Regional Regulation Number 6 of 2008 concerning Environmental Control reflects the local government's efforts to address pollution issues. This regulation requires every entity that produces waste to manage its wastewater through a Wastewater Treatment Plant (WWTP).

Youtefa Bay is a vital ecological and economic asset for Jayapura City and Papua Province. Located in the southern part of Jayapura City, the bay covers an area of approximately 1,675 hectares. The bay's ecosystem includes mangrove forests, seagrass beds, and coral reefs, which provide habitat for various species of flora and fauna (Paulangan, 2018).

Youtefa Bay, located in Jayapura City, covers an area of 1,675 hectares and has been designated a Nature Tourism Park since 1996. This area is renowned for its beautiful natural scenery, including the presence of mangrove forests, which are vital to the ecosystem. Unfortunately, this area faces serious pollution problems, primarily from plastic waste and household and industrial waste. Pollution in Youtefa Bay is largely caused by wastewater discharge from rivers such as the Hanyaan and Acai, which carry chemicals and waste directly into the bay, disrupting the balance of the aquatic ecosystem and posing a risk to local communities dependent on marine resources.

Research from Cenderawasih University shows that this pollution is also triggered by the accumulation of heavy metals such as lead (Pb), which are harmful to marine life and human health. Illegal logging around the Holtekamp area also exacerbates the situation, leading to the degradation of mangrove forests, which should function as a barrier to abrasion and flood mitigation. Several conservation efforts have been undertaken, such as the planting of 7.45 million mangrove seedlings across 2,669 hectares, but plastic and waste pollution remain significant problems. However, with population growth and economic development in the surrounding area, Youtefa Bay faces a serious threat from environmental pollution. Various studies have shown water quality degradation, habitat destruction, and a decline in biodiversity in the area.

Population growth around Youtefa Bay has increased the volume of domestic waste entering the bay's waters. According to the Jayapura City Central Statistics Agency (2022), the population in the area surrounding the bay reached 145,000 in 2021. An inadequate waste management system causes a large portion of household waste, including wastewater and solid waste, to flow directly into the bay without proper treatment (Hamuna et al., 2018). Furthermore, the development of the industrial sector in Jayapura City also contributes to the pollution of Youtefa Bay. Fish processing industries, timber factories, and other small and medium-sized enterprises frequently discharge their wastewater into the rivers that flow into the bay. This pollution has caused significant degradation of the Youtefa Bay ecosystem. Hamuna et al. (2018) reported a 30% decrease in coral reef cover over the past five years. Furthermore, there has been a 15% reduction in mangrove forest area due to pollution and land conversion.

The environmental degradation of Youtefa Bay directly impacts the communities that depend on the bay's resources. The fisheries sector has seen a 40% decline in catches over the past decade (Jayapura City Maritime Affairs and Fisheries Service, 2021). This has impacted the income of local fishermen and the food security of coastal communities. Water pollution in Youtefa Bay also poses health risks to the surrounding community. A study by the Faculty of Public Health, Cenderawasih University (2020) showed an increase in cases of skin diseases and diarrhea in the coastal areas of the bay, suspected to be related to exposure to polluted water.

The Jayapura City Environmental Service (DLH) plays a crucial role in preventing and controlling pollution in Youtefa Bay. The Jayapura City DLH's role is based on several legal bases, including:

1. Law No. 32 of 2009 concerning Environmental Protection and Management
2. Jayapura City Regional Regulation No. 6 of 2018 concerning Management of Coastal Areas and Small Islands
3. Jayapura Mayoral Regulation concerning the Main Duties and Functions of the Jayapura City DLH.

Based on the applicable regulations, the Jayapura City Environmental Agency (DLH) has several main tasks and functions in the context of pollution prevention in Youtefa Bay including planning and policy, Supervision and Control, Law Enforcement, Community Education and Empowerment, Implementation of Pollution Prevention Programs, and Environmental Quality Monitoring Programs. Based on initial observations, in carrying out its duties, the Jayapura City Environmental Agency faces several challenges such as limited human resources and budget and lack of coordination between government agencies. With this important role, research on the implementation of the Youtefa Bay Pollution Prevention policy is necessary. The Jayapura City Environmental Agency plays a vital role in pollution prevention efforts in Youtefa Bay.

## 2. Methods

The research method used was descriptive qualitative. This study aims to determine and analyze the implementation of environmental pollution control policies in Youtefa Bay, Jayapura City. Furthermore, it also aims to identify and analyze the supporting and inhibiting factors in implementing environmental pollution control policies in Youtefa Bay, Jayapura City. This technique is also known as the snowball technique. The informants involved in this study

were department heads, staff, and community members participating in environmental pollution control programs in Youtefa Bay implemented by the Jayapura City Environmental Agency.

In this study, the data collection method, which falls into the primary data category, includes interviews. According to Nazir (2003:193-194), an interview is the process of obtaining information for research purposes through face-to-face question and answer sessions between the interviewer and the respondent, using a tool called an interview guide. Therefore, the interview is conducted face-to-face by two or more people. The type of interview used is a structured interview, meaning the questions are determined in advance by the researcher.

Observation. Observation is a naturalistic method that occurs in the natural context of the event, with the participants participating naturally in the interaction, and this observation traces the natural flow of everyday life (Sedarmayanti and Hidayat, 2002:75). According to Hadi (1995:136), observation is the systematic observation and recording of the phenomena being investigated. In a broad sense, observation is not limited to observation conducted with the naked eye but includes all types of observation, whether direct or indirect.

Then there is documentation. Documents are one of the tools used to collect data in qualitative research. According to Koentjaraningrat (1997:48), documents are data recorded in various forms that are the only tool for studying a particular problem, partly because they cannot be observed again and cannot be remembered. The types of documents used in this research include: manuals, reports, newspaper clippings, and other relevant materials. Literature review. The literature review used in this research covers literature related to the research problem, such as books and journals, and other sources that can strengthen the theoretical foundation and serve as a reference or guide for the author in solving the problem.

Data analysis includes the following stages: Data Reduction, which is carried out by abstracting, namely creating a summary of the core elements, processes, and statements that need to be maintained so that they remain within the data. This data reduction is a process of recording data in the field and then presented in a detailed report. Data Presentation is carried out to facilitate the researcher in seeing the overall picture or specific parts of the research. Conclusion Drawing is carried out after the researcher has continuously verified the research conducted since the beginning of the study. This is done to reach conclusions that are continuously verified throughout the research.

## 3. Results and Discussion

### 3.1. Implementation of Pollution Control Policies in Youtefa Bay, Jayapura City

**1. Communication**

Communication plays a crucial role in the implementation of environmental pollution control policies, particularly in the specific case of Youtefa Bay, Jayapura City. As an area with high biodiversity, Youtefa Bay experiences environmental pressures due to human activities such as domestic and industrial waste. To address this issue, government policies need to be effectively disseminated to the public and relevant parties. Communication indicators in this context include clarity of information, accessibility of messages, and active participation from all stakeholders, including the government, local communities, and the private sector.

Furthermore, the success of policy implementation also depends on how well communication can encourage changes in public behavior. Delivering messages that are easy to understand, consistent, and based on scientific evidence is crucial for engaging the public in preserving the environment of Youtefa Bay. Another influential communication indicator is public response or feedback, which can help the government adjust policy strategies to more effectively address pollution in the area.

The presentations of these two informants demonstrate that communication is a crucial aspect of policy implementation. The first quote demonstrates that the government is attempting to engage the public through outreach regarding environmental pollution in Youtefa Bay. However, a major challenge is changing public waste management habits. In this context, despite ongoing communication campaigns, significant results are yet to be seen, as behavioral change requires time and a continuous process. According to Edwards III, the success of a policy depends largely on how effectively communication is delivered and received by recipients.

Furthermore, quotes from residents living around Youtefa Bay indicate that, despite regular outreach, not everyone understands or cares about the pollution issue. This indicates that the communication process is not fully effective in reaching all segments of society. There is a gap between the information provided by the government and the public's response, leading to issues of acceptance and understanding. In policy implementation, Edwards III emphasized that clear, consistent, and comprehensive communication is crucial to ensure all parties understand the policy's objectives and actively participate.

Furthermore, the communication aspect can also be seen in the government's efforts to tighten oversight of industries around Youtefa Bay. This demonstrates that the government relies not only on persuasive communication with the public but also strengthens communication through regulations and law enforcement. In this case, policy communication takes place formally through clear regulations issued to stakeholders. According to Edwards III, this form of communication can be effective if accompanied by consistent oversight and strict sanctions for those who violate the rules.

However, despite increased oversight of industry, the public still feels a lack of firm action against residents who litter. This indicates that government communication efforts are still insufficient to create the desired behavioral change. Edwards III stated that policy communication must involve public feedback to determine its effectiveness. In this case, public feedback indicates that communication still needs to be improved, particularly in raising public awareness of the long-term impacts of their behavior on the environment.

Overall, this analysis shows that despite government communication efforts through outreach and supervision, the greatest challenge in implementing environmental pollution policies in Youtefa Bay lies in changing public awareness and behavior. According to Edwards III, successful policy implementation requires not only a clear message but also adequate support facilities and community involvement in the change process. In this regard, providing more waste processing facilities and increasing strict action against environmental violations could be important steps to support the effectiveness of this policy communication.

## 2. Resources

Resources are a key element in implementing environmental pollution control policies, particularly in areas with significant ecological value such as Youtefa Bay, Jayapura City. These resources include manpower, budget, technology, and the capabilities and capacities of

relevant institutions to implement these policies. Without adequate allocation and utilization of resources, even well-designed policies will not achieve optimal results. For example, a lack of trained human resources in environmental management can hamper monitoring and law enforcement efforts against activities polluting the bay. Furthermore, inadequate technology can hinder early detection and mitigation of pollution.

Furthermore, the distribution and utilization of resources must be efficient and targeted for the effective implementation of pollution control policies in Youtefa Bay. Proper resource management will help ensure that environmental programs such as water quality monitoring, cleanup, and community education are implemented as planned. Community involvement is also a crucial resource, as their knowledge and participation in maintaining a clean environment contribute to the policy's success. Thus, the success of environmental pollution control in Youtefa Bay depends heavily on the availability and optimal management of resources from various stakeholders.

The presentations of these two informants indicate that one key aspect is resources, including manpower, budget, and supporting infrastructure. A quote from the Environmental Agency indicates that resource limitations are a major challenge in implementing environmental pollution control policies in Youtefa Bay. These limitations include a lack of skilled human resources and a lack of equipment for monitoring and law enforcement. Edwards III stated that without adequate resource support, no matter how good a policy, it will be difficult to implement effectively.

This quote also demonstrates how budget constraints exacerbate this problem. In the context of Edwards III's theory, the budget is a crucial resource that enables the government to implement structured environmental programs. Lack of funds not only hampers oversight but also limits staff training and competency development, ultimately reducing the quality of policy implementation. Without sufficient resources, both in terms of manpower and budget, formulated policies cannot be implemented as expected, especially in areas with complex environmental issues like Youtefa Bay.

From the community's perspective, the following quote demonstrates the importance of resources in the form of education and outreach programs. The community feels they are not receiving enough education about the importance of maintaining a clean environment. According to Edwards III, resources such as community knowledge and training are also crucial in policy implementation. Environmental outreach and education are interventions that can help raise awareness and change community behavior in preserving Youtefa Bay.

In addition to education, the community also desires concrete programs such as beach cleanups. This demonstrates that resources in the form of community-based activities that involve the community can be a crucial factor in the success of policy implementation. In this regard, a good policy should not only focus on administrative aspects and law enforcement but also actively involve the community in pollution control efforts.

Overall, based on the above quotation and analysis of Edwards III's theory, it can be concluded that limited resources, both in terms of manpower, budget, and social resources such as education and community participation, are the main obstacles to implementing environmental pollution control policies in Youtefa Bay. Efforts to improve the allocation of these resources are crucial for this policy to be implemented more effectively and have a tangible impact.

### 3. Disposition

In the context of policy implementation, disposition is a crucial factor influencing the effectiveness of policy implementation, particularly in the area of environmental pollution control. Disposition refers to the attitude, commitment, and desire of the individual or group responsible for implementing the policy. In Youtefa Bay, Jayapura City, the environmental pollution control policy requires the full support of various parties involved, from the local government, relevant officials, and the local community. The positive attitude and strong commitment of policy implementers are crucial in determining the extent to which this policy can be effectively implemented to address pollution problems in the area.

Indicators of disposition in the implementation of the pollution control policy in Youtefa Bay can be seen from several aspects. First, the willingness of government officials to prioritize environmental agendas and consistently implement the policy. Second, the extent to which officials understand and agree with the importance of this policy in maintaining the environmental sustainability of Youtefa Bay. Third, community involvement in supporting the policy through active participation in environmental cleanliness and preservation programs. The success of this policy depends heavily on the proactive attitude of stakeholders and collective awareness to keep Youtefa Bay clean and sustainable.

Based on the presentations of the two informants, the first quote from the government, specifically the Environmental Agency, demonstrates an awareness of the importance of inter-agency collaboration and community involvement. However, this aspect is not fully reflected in the reality on the ground, as expressed by the community in the second quote.

The disposition demonstrated by the Environmental Agency in the first quote appears quite positive. They recognize the importance of cooperation with the community and emphasize the need for collaboration to raise awareness of the importance of maintaining a clean environment. This reflects the government's good intentions to involve various parties in the implementation of the policy. However, Edwards III emphasized that disposition alone is insufficient if not supported by concrete actions demonstrating commitment to the policy.

Meanwhile, from the perspective of the community living around Youtefa Bay, the government's disposition, particularly in listening to input and complaints, is considered less than optimal. According to the community, their involvement in pollution control policies is crucial, but they feel that the government has not been fully open and transparent in communicating and responding to local needs. This indicates a gap between the government's desired disposition and the community's perception of that disposition. Edwards III also highlighted that openness and trust between the government and the public are crucial elements of the disposition for policy implementation. A perceived lack of openness and transparency among the public can hinder the policy implementation process, as the public, who should be a crucial part of the solution, does not feel actively involved. This leads to potentially low public participation in maintaining environmental cleanliness, which will ultimately impact the success of the pollution control policy in Youtefa Bay.

Overall, based on Edwards III's disposition analysis, the pollution control policy in Youtefa Bay faces challenges in effective implementation due to the lack of alignment between the government's good intentions and the public's expectations and participation. For this policy to be implemented optimally, there needs to be increased communication, openness, and commitment from the government in responding to public input. A positive disposition will only be effective if supported by efforts to build trust and closer cooperation.

### 4. Bureaucratic Structure

Bureaucratic structure is a crucial component in the implementation of environmental pollution control policies, particularly in vulnerable areas like Youtefa Bay in Jayapura City. A well-organized bureaucracy forms the backbone of various environmental policies and programs. Indicators of a crucial bureaucratic structure include inter-agency coordination, clear authority, and the active involvement of relevant stakeholders. In the context of pollution control in Youtefa Bay, the effectiveness of the bureaucratic structure is determined by the extent to which government organizations, both at the local and regional levels, are able to collaborate to implement established policies.

Furthermore, a sound bureaucratic structure also encompasses transparency in decision-making and resource allocation. This includes strict monitoring of pollution, enforcement of environmental standards, and oversight of violations. In Youtefa Bay, the success of pollution control policies depends heavily on how effectively the bureaucracy can respond to local challenges such as industrial activity, domestic waste, and ecosystem degradation. With clear and measurable bureaucratic indicators, control efforts can be carried out in a more coordinated and sustainable manner.

The presentations of these two informants indicate that bureaucratic structures play a crucial role because they determine how policies are translated into action on the ground. Complex structures and lengthy hierarchies often slow decision-making and hinder policy effectiveness.

Complex bureaucratic structures make inter-agency coordination one of the biggest obstacles. The first informant emphasized how this structure slows down the decision-making process. According to Edwards III, rigid bureaucratic structures can cause delays in information delivery and hinder flexibility in responding to environmental issues such as pollution. Therefore, policy implementation is less effective if it is not supported by swift and precise coordination between various relevant agencies.

Community support is also a crucial factor in policy implementation, as expressed by the second informant. Edwards III emphasized the importance of effective communication in policy implementation, including communication between the government and the community. When communities are not involved in the decision-making process, they feel alienated and are less likely to actively contribute. This results in policies not gaining full support from local stakeholders, negatively impacting their success.

Furthermore, the lack of community involvement in the decision-making process reflects a lack of disposition or commitment from the government to truly involve the community as part of the solution. Edwards III explained that the attitudes and behavior of bureaucrats in enforcing policies significantly influence the success of implementation. In this case, the government's disposition appears to lack openness and collaboration with the community, leaving the community feeling their desire to contribute is being ignored.

As a solution, reforming the bureaucratic structure to be more inclusive and participatory is needed to support more effective policy implementation. Edwards III believes that policies that involve various stakeholders, including the community, have a greater chance of success. Better communication, faster decision-making systems, and active community involvement in every stage of policy implementation can improve the process and outcomes of environmental pollution control policies in Youtefa Bay.

### 3.2. Supporting and Inhibiting Factors for the Implementation of Pollution Control Policies in Youtefa Bay, Jayapura City

**1. Supporting Factors**

Supporting factors in the implementation of environmental pollution control policies in Youtefa Bay, Jayapura City, play a critical role in determining the program's success. These policies, designed to protect coastal and aquatic ecosystems, require support from various elements, including strong regulations, inter-agency coordination, and the active participation of the local community. Effective policies rely not only on government oversight but also require collaboration from the private sector, civil society organizations, and academics to ensure that control measures are implemented sustainably and comprehensively.

Furthermore, the availability of supporting infrastructure, such as waste and sewage management facilities and environmentally friendly technology, is key to the successful implementation of this policy. Public education and outreach regarding the importance of maintaining a clean environment are also crucial factors that can influence public awareness and involvement in maintaining the cleanliness of Youtefa Bay. With strong supporting factors, pollution control programs in this area have a greater chance of delivering tangible and sustainable results for environmental sustainability and the well-being of the surrounding community.

Based on the presentations of the two informants, it appears that there are several significant supporting factors in the implementation of environmental pollution control policies in Youtefa Bay. First, the presence of a trained and experienced team is a crucial pillar in pollution monitoring and law enforcement efforts. This competent team is capable of not only identifying pollution problems but also implementing the necessary actions to address them. The availability of adequate human resources helps ensure that each implemented program runs effectively and efficiently.

Second, strong support from the central government in the form of regulations and budgets is also a key factor in strengthening local initiatives in Youtefa Bay. With clear regulations and financial support, the local government can allocate resources to better pollution control programs. This support creates a framework that enables concrete action to address environmental issues, while ensuring that policies are aligned with the vision and mission of sustainable development.

Third, environmental education provided by the Environmental Agency plays a crucial role in increasing public understanding of the impacts of pollution. Through this educational program, the community is expected to understand the importance of preserving the ecosystem and effective ways to prevent pollution. Growing public awareness not only results in more environmentally friendly behavior but also fosters a generation that is more concerned about environmental issues in the future.

2. Inhibiting Factors

In implementing environmental pollution control policies in Youtefa Bay in Jayapura City, various inhibiting factors often hinder the achievement of these policy objectives. One major factor is the lack of coordination between the various institutions and agencies involved in environmental management. Although policies have been formulated, their implementation is often hampered by overlapping authority and a lack of synergy between institutions, both at

the local and national levels. As a result, monitoring and law enforcement against environmental violations are suboptimal.

Furthermore, limited resources, both in terms of budget and human resources, are also significant factors. Youtefa Bay requires comprehensive and sustainable efforts to address pollution, but limited funding and a lack of competent environmental personnel make it difficult to implement pollution control programs effectively. These limitations are exacerbated by low public awareness of the importance of preserving the environment, which leads to the persistence of littering and other illegal practices.

Based on the presentations of the two informants, one of the main factors hampering the implementation of environmental pollution control policies in Youtefa Bay is the lack of budget allocated for environmental maintenance programs. Without adequate financial support, it is difficult to implement intensive and sustainable activities. Programs such as routine cleaning, waste management, and public education require sufficient funding to run effectively. As a result, many initiatives designed to maintain environmental cleanliness and sustainability have been hampered or even canceled.

Low public awareness of the importance of maintaining environmental cleanliness is also a significant obstacle. Many residents do not understand the negative impacts of pollution and are less involved in existing programs. Without a deep understanding of the consequences of their behavior on the environment, people tend to neglect cleanliness and prefer to continue bad habits, such as littering. More intensive and engaging education is needed to raise this awareness.

Infrastructure issues are also a serious obstacle. In Youtefa Bay, the lack of adequate waste disposal sites leads to the indiscriminate disposal of waste. The lack of adequate facilities not only complicates waste management but also reduces community motivation to maintain environmental cleanliness. To address this problem, the government needs to invest in the development of necessary infrastructure, such as affordable and easily accessible waste disposal sites.

Lack of coordination between relevant government agencies often leads to confusion in policy implementation. Overlapping policies and programs can create a situation where environmental pollution control efforts are ineffective. Without good synergy between various agencies, existing programs may not work as expected. It is crucial for the government to improve communication and collaboration between agencies to ensure that all parties are working toward the same goal.

Factors inhibiting the implementation of environmental pollution control in Youtefa Bay, Jayapura City, include insufficient budget, low public awareness, inadequate infrastructure, and weak inter-agency coordination. To achieve significant improvements, a comprehensive approach is needed, including increased budgets, better education, infrastructure development, and increased inter-agency cooperation. With these steps, it is hoped that efforts to maintain environmental cleanliness and sustainability will be more effective and sustainable.

## 4. Conclusion

First, the implementation of environmental pollution control policies in Youtefa Bay is heavily influenced by various factors, including communication, resources, disposition, and bureaucratic structure. Despite government efforts to engage the community and raise

environmental awareness, challenges such as budgetary constraints, limited human resources, and a complex bureaucratic structure continue to hamper the process. To achieve greater success, improved inter-agency coordination, transparency in decision-making, and active community participation are needed. Comprehensive reforms and a more inclusive approach will be key to ensuring the sustainability and effectiveness of policies in preserving the environment in Youtefa Bay.

Second, the factors supporting and inhibiting the implementation of environmental pollution control policies in Youtefa Bay, Jayapura City, include the presence of a trained team, government support, and increased public awareness. Comprehensive measures encompassing increased budgets, environmental education, infrastructure development, and inter-agency collaboration are essential. Thus, efforts to maintain the cleanliness and environmental sustainability of Youtefa Bay can be more effective and sustainable, ensuring a healthy ecosystem for future generations. In addition, they are faced with various challenges or inhibiting factors, including lack of budget, low public awareness, inadequate infrastructure, and weak coordination between institutions.

## 5. References

Agustino, Leo. 2008. Fundamentals of Public Policy. Bandung: Alfabeta.

Bachri, I. F. (2023). Implementation of the Waste Management Program in Environmental Pollution Mitigation in Bone Regency, South Sulawesi Province (Doctoral dissertation, IPDN).

Delta, R., Nadriana, L., Handayani, H., Faryando, A. A., & Gunawan, R. (2023). Implementation of Sanctions Against Companies Committing Environmental Pollution. Audi Et AP: Journal of Legal Research, 2(02), 118-127.

Dewata, I., & Danhas, Y. H. (2023). Environmental Pollution. PT. RajaGrafindo Persada-Rajawali Pers.

Dunn, William, 1994. Public Policy Analysis. Yogyakarta: Hanindita Offset.

Febriani, S. R., Sajidah, U., Saputri, B. R., Prasasti, P. F., & Rosyada, F. (2023). Analysis of Liquid Waste Pollution Management Policy in the Kalisari Damen River, Surabaya City. Madani: Multidisciplinary Scientific Journal, 1(5).

Fitrya, N. N. (2022). Implementation of Environmental Protection and Management Policies to Address Pollution Levels in the Siak River on the Coast of Pekanbaru City (Doctoral dissertation, Sultan Syarif Kasim State Islamic University, Riau).

Hamuna, B., & Tanjung, RH (2018). Detecting Changes in Mangrove Area in Youtefa Bay, Jayapura City Using Multitemporal Landsat Imagery. Indonesian Geography Magazine, 32(2), 115-122.

Handoko, Hani, 1999. Organizational Behavior. Yogyakarta: BPFE UGM

Hogwood, Brian W., and Lewis A. Gunn, 1986, Policy Analysis for the Real World. London, Oxford University Press

Islamy, Irfan. 2000. Principles of State Policy Formulation. Jakarta: Bumi Aksara.

Kapioru, Harlan Evan. 2014. Implementation of Kupang City Regional Regulation Number 15 of 2011 Concerning Parking Service Fees on Public Roads. Nominal Journal. Vol. 3 (1): 101-119.

Keraf, A. S. (2010). Global Environmental Crisis & Disasters. Kanisius Publisher.

Koentjaraningrat. 1997. Community Research Methods. Gramedia: Jakarta.

Manik, KES (2018). Environmental Management. Kencana.

Moleong, Lexy J. 2009. Qualitative Research Methodology. Bandung: PT. Rosdakarya Youth.

Muadifah, A. (2019). Environmental Pollution Control. Media Nusa Creative (MNC Publishing).

Mulyadi, Deddy, 2015, Study of Public Policy and Public Services. Bandung: Alfabeta

Naditya, Rochyani, Suryono, Agus, and Rozikin, Mochamad. 2013. Implementation of Malang City Regional Regulation Number 10 of 2010 concerning Waste Management (A Study at the Department of Sanitation and Parks (DKP) in the Implementation of the Malang Waste Bank Program (BSM) in Sukun Village, Malang City). Journal of Public Administration (JAP). Vol. 1(6): 1086-1095.

Nawawi, Hadari. H. Murni Martini. 1993. Applied Research. Yogyakarta: Gajah Mada University Press.

Nurgoho, R. (2014). Public Policy: Formulation, Implementation, Evaluation. Jakarta: PT. Elex Media Komputindo, Gramedia Group.

Paulangan, Y.P., Amin, M.A.A., Wahyudin, Y., & Kodiran, T. (2018). Identification of Alternative Livelihoods for Local Communities in the Depapre Bay Conservation Area Candidate, Jayapura. Jumabis: Journal of Management and Business, 2 (2).

Pramudyanto, B. (2014). Controlling Pollution and Damage in Coastal Areas. Lingkar Widyaiswara Journal, 1 (4), 21-40.

Rusdina, A. (2015). Grounding Environmental Ethics for Efforts to Cultivate Responsible Environmental Management. Istek, 9 (2), 244–263.

Sedarmayanti and Syarifudin Hidayat. 2002. Research Methodology. Bandung: Mandar Maju.

Septiawan, F., Putera, R. E., & Kusdarini, K. (2024). Implementation of the Pollution and Environmental Damage Control Program in the Batang Arau River by the Padang City Environmental Agency. ASIAN Journal of Public Administration (Association of Public Administration Scientists), 12(1), 27-42.

Setiawan, G. (2004). Implementation in Development Bureaucracy. Jakarta: Balai Pustaka

Soenarko, S.D. 2000. Public Policy: Basic Concepts for Understanding and Analyzing Government Policy. Surabaya: Airlangga University Press

Solichin, Abdul, Wahab. 2008. Policy Analysis: From Formulation to Implementation of State Policy. Second Edition. Bumi Aksara. Jakarta.

Soenarko, S.D. 2000. Public Policy: Basic Concepts for Understanding and Analyzing Government Policy. Surabaya: Airlangga University Press

Suharno, Edi. 2010. Public Policy Analysis. CV Alfabeta. Bandung.

Sompotan, D. D., & Sinaga, J. (2022). Environmental Pollution Prevention. SAINTEKES: Journal of Science, Technology, and Health, 1(1), 6-13.

Syahida, Agung, Bayu. 2014. Implementation of Regional Regulation Number 14 of 2009 concerning Waste Management in Tanjungpinang City (Case Study in Tanjung Unggat Village). Thesis. Faculty of Social and Political Sciences, UMRAH.

Syaukani et al. 2003. Regional Autonomy in a Unitary State. Yogyakarta: Pustaka Pelajar.

Tahir, Arifin 2014. Public Policy and Transparency in Regional Government Administration. Jakarta, Pustaka Indonesia Press.

Tangkilisan, Hessel Nogi S. (2003). Down-to-Earth Public Policy. Yogyakarta: Indonesian Public Administration Reform Foundation (YPAPI) & Lukman Offset.

Taufik, Muhammad & Isril. 2013. Implementation of Village Consultative Body Regional Regulations. Journal of Public Policy. Vol. 4 (2): 135-140.

Usman, Nurdin. 2004. The Context of Curriculum-Based Implementation. Jakarta: PT. Raja Grafindo Persada.

Widodo, Erna, and Mukhtar. 2000. Construction Towards Descriptive Research. Yogyakarta, Avirouz.

Wildavsky, Aaron, and Caiden, Naomi. 2012. Dynamics of the Budget Political Process. Yogyakarta. Proclamation University '45.

Winarno, Budi. 2002. Public Policy Theory and Process. Yogyakarta: Media Pressindo.

Yin, R. 2000. Case Study Research: Design and Methods. California: Thousands Oaks.