



A policy of the Office of the Environment Against Abrasion Management Due to Exploitation of Sand Beach excavation materials in Merauke Regency

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Abstract

This study aims to determine how the policies of the Merauke Regency Environmental Agency in the effort to overcome abrasion due to sand excavation activities carried out by the community regardless of environmental conditions, thus damaging the coastal ecosystems of Merauke Regency. Responding to the problem, how are the efforts of the Regional Government to overcome the problem of environmental damage? Based on Article 14 of Law Number 23 of 2014 concerning Regional Government, environmental control is a compulsory matter which is the authority of the regional government for the regency/city. This research method uses a descriptive method with a qualitative approach. The results of the study showed that the Environmental Service Policy conducted two work programs to prevent coastal abrasion in three villages in 2017 - 2019 by involving the village government in carrying out the work program.

INTRODUCTION

The benefits of nature greatly support human life, therefore humans are obliged to maintain the availability of natural resources by using them efficiently. Coastal areas as it is known that are one of the resources and environmental services is very important in helping to meet human needs. Its function is very vital for humans not only to meet food needs such as fishery products and mining materials such as coastal pair, but also environmental services in the form of natural scenery that can be enjoyed.¹ The protection of the environment in order to continue to be used properly and healthily must be protected, so that every citizen's rights can be fulfilled to get a good and healthy place to stay as stated in the 1945 Constitution as follows

¹ Iriani, 2013, *Analisis Nilai Ekonomi Manfaat dan Dampak Negatif Penambangan Pasisir Ilegal Di Sungai Brantas Kelurahan Semampir Kota Kediri*. Skripsi, Fakultas Ekonomi dan management, IPB. Bogor

"Every person has the right to live in peace and harmony, to live, and to have a good and healthy environment and to receive health services".² From this basis, Law No. 32 of 2009 concerning Management and Protection of the Environment provides direction for the environment can be maintained sustainably. The active role of the Regional Government in the utilization and protection of the environment is a concrete thing that must be done because it is the duty and authority of the government to realize the sustainability of natural resources that can be utilized by the next generation.

Damage to the coastal environment ecosystems in Merauke Regency is increasingly threatening communities along the coast in several locations within the Merauke Regency. In recent years there has been an abrasion resulting from the excavation of sand along the coast. The cause of damage to the environment which includes aspects of land, sea, and air is largely due to two factors, namely natural factors and human activity factors.³ Environmental damage caused by human activity tends to increase because the use of the environment by humans is not balanced by not seeing environmental sustainability and only taking into account the benefits of natural products. Sand mining activities on the beach have been carried out for quite a long time, and they are quite helpful in the speed of development growth in Merauke Regency. and other simple tools for conducting sand excavation and not first observing the location of sand excavation. These activities greatly affect the environmental, social and economic ecosystem problems of the people, taking the sand is very not paying attention to environmental sustainability, because of the problems arising from the excavation of this beach sand, which causes damage to the coastal environment including damaging the natural shield from the onslaught of sea waves so coastal abrasion, damage mangrove ecosystems and cause abrasion. In this case, the condition is very dangerous to the safety of the inhabitants who live on the coast. The negative impact arising from the sand mining that has been carried out has been proven through direct research by research and research entitled "Cognitive Mapping of Causes and Impacts of Sand Exploitation Along Coastal Borders in Merauke Regency."⁴ That the research shows the facts of the research

² Yunus Wahid,(2014).*Pengantar Hukum Lingkungan*. Makassar, ArusTimur.h183

³ Yosef A Christie.La Sina dan Rika Erawati, 2013.Dampak Kerusakan Lingkungan Akibat Aktivitas Pembangunan(Studi Kasus di Perumahan Palaran City Oleh PT Kusuma Hady Property), Jurnal Beraja Niti, ISSN 2337-4608, VOL 2 No 11,p.6

⁴ Philipus Betaubun, R A Djamil, D Hermanuadi, Rahmat A Syaban. (2016).*Pemetaan Kognitif Penyebab dan Dampak Eksploitasi Pasir Sepanjang Sempadan Pantai di Kabupaten Merauke*. Seminar Nasional Hasil Penelitian dan Pengabdian Masyarakat,ISBN 978-602-14917-2-0.

findings are simply explained that four negative impacts are arising from sand mining as follows: 1). The existence of a puddle caused by the excavation of sand that reaches a width of 100 meters and a depth of 3-4 meters. the puddle is flooded with water and can contribute to the impact of the disease on public health. 2). Damage to coastal ecosystems as a result of the loss of commensurate beaches. Like the fall of several types of plants, among others; Coconut trees, Waru, Ketapang, and several other species that are on the coast. Whereas ecologically, the position of the coastline is a natural shield that serves to withstand the speed of the onslaught of the waves, the intrusion of seawater entering the land, and the activity of sea abrasion. 3). Mangrove ecosystems suffered significant damage, from observations in the field showed that no mangrove vegetation was found around the coast anymore, whereas according to the local community's recognition that in the 1990s the width of mangrove vegetation reached 50-75 meters from the beach. 4). Because there are no more shores of the coast which are a shield against the onslaught of abrasion and seawater intrusion, causing problems felt by communities along the coast, namely experiencing a lack of freshwater quality, residents become increasingly salty, this can threaten the capacity of clean water for the necessities of life for residents around the coast. the results of operations conducted from 20 residents' well water, the quality of well water has declined in the last 10 years, the well water is more turbid and the higher the level of salinity.

From the results of the analysis of the research, it has a very negative impact from the excavation of the beach sand because it has damaged the natural quality on the coast of Merauke Regency. Seeing the environmental problems that occur as a result of coastal sand excavation activities, Article 14 of Law No. 23 of 2014 concerning Regional Government, that environmental control is a compulsory affair which is the regional authority for the regency/city. In the control of the environment, it is necessary to have policies made in controlling the management and utilization of environmental resources so that natural resources can be controlled and are more effective and efficient in their use. Environmental preservation is also maintained. Government policies must also be right on target so that what is to be achieved from these policies can be optimally accommodated and not detrimental to society with policies made by the government. Definition of policy according to Friedrich Public policy is a series of actions/activities proposed by a person, group, or government in a particular environment where there are obstacles (difficulties) and possibilities

(opportunities) where the policy is proposed to be useful in achieving the intended goal.⁵

Following the definition of the public policy in response to the phenomenon of environmental damage that occurs in Merauke district, is the main step that must be taken to control the utilization and protection of the environment. Local Governments must pay attention and consider all aspects of life in issuing a legal or policy product. In public policy actions taken by the government are closely related to systems, procedures, and mechanisms.⁶ From the results of the background description of the problem above, the author would like to know more about how the efforts to prevent and mitigate the occurrence of abrasion carried out by the Merauke Regency Environmental Office in locations affected by coastal abrasion.

RESEARCH METHODS

The method used in this research is a descriptive research method, using a qualitative approach. With this method, the researcher looks more at the picture of the phenomena that occur, namely about how the Government's policies in efforts to tackle abrasion in three abrasion-prone locations, Sources, and types of data in this study are primary and secondary data. Primary data were obtained directly from informants through interviews and secondary data from other sources in the form of documents and literature.

DISCUSSION

Almost the same environmental problems occur from year to year which is a problem arising from the activities of the economic needs of the people who are still very dependent on natural resources in Merauke district, making it very vulnerable to a decline in environmental function. One of the environmental problems that have occurred. Since the 2000s the mining activities of sand mining have been carried out in Merauke Regency, these activities have been quite helpful in increasing the development of the Merauke Regency development, but on the other hand, various phenomena arise from significant beach sand extraction activities. Damage to the beach ecosystem also affects natural attractions, the livelihoods of fishermen, including by endangering thousands of Papuan and Non-Papuan Natives who live

⁵ Agustino L.(2008) Dasar-Dasar Kebijakan Publik, Bandung.Alfabeta.h.6

⁶ Alexander Phuk Tjilen.2016. *Kebijakan Publik*. Bandung. Nusa Media.h24

along the coast and swamps in Merauke Regency. Responding to the problem following Article 14 of Law No. 23 of 2014 concerning Regional Government and also disregarding the Papua Province Regulation No 3 of 2019 concerning Regional Medium-Term Development Plans for 2019 - 2023 as for strategies and policy directions on environmental problems, one of which is the impact of coastal abrasion as follows :

Table 1 .1
Policy Direction Strategy And Development Program Medium- Region Papua
2019-2023

<i>Target</i>	<i>Strategy</i>	<i>Policy Direction</i>
Increased Environmental Quality and Climate Change Mitigation Action	Increasing Prevention of Pollution and Environmental Damage and Promoting Sustainable Development with Environmental Insights	Pollution and Environmental Damage Control Program

Source: PAPUA RPJMD 2019-2023, researcher modification 20 20

Based on the table above and with the condition of the Merauke Regency coastal environmental problems, it is a formulation of the strategy and direction of policymaking by the Merauke Regency Government through the Environmental Service, in responding to the problem of environmental damage to be able to deal with abrasion problems effectively and efficiently, according to the regional mid-term development plan. The implementation is related to the planning of the policy direction that will be carried out to control the quality of environmental stability and is expected to produce good public policies from the Government's planning to all parties so that no one feels disadvantaged from the policy.

Purpose of Coastal Abrasion Prevention Policy

Responding to the abrasion problem at the regional level, the Merauke Regency government through the Department of the Environment has made two efforts to deal with abrasion as a form of coastal protection program in three villages namely Payum, Wamal and Crumb villages in the last two years, from 2017 to 2019, and several years previously it had also been carried out on coastal areas in several locations in Merauke Regency. The program aims to restore environmental damage to improve the function of mangroves and other types of plants as natural shields

that can withstand the onslaught of the waves, to anticipate the occurrence of abrasion in the area. Of course, the government does not move alone in the matter of controlling environmental damage, as done by the Merauke Regency Environmental Office in collaboration with the village community and village government to support the program of activities made so that the activity can run according to the government's plan to control environmental damage because environmental control is one of the efforts to overcome environmental problems.

Beach Abrasion Mitigation Plan along the Payum, Wamal, and Urumb Coastlines.

Environmental damage control activities are priority tasks, authorities, and responsibilities of the Government through the Environmental Agency of Merauke Regency with the issue of abrasion issues. Due to Payum, Wamal, and Urumb beach abrasion due to irregular beach sand extraction, the worst abrasion occurs on the beach where abrasion starts to reach the land and destroy mangrove trees and coastal vegetation. mangrove ecosystems that have been considered as anchoring waves began to disappear one by one due to coastal abrasion and even worse abrasion has reached community settlements.⁷ the impact of abrasion began to be felt with the entry of seawater into settlements, rice fields, and community wells. The Office of Environment's policy efforts program is carried out continuously in controlling environmental damage that occurs. Following the abrasion prevention strategy carried out through activities that are formulated based on the location of the abrasion countermeasures and adjusted to the ability of the local budget. Program Efforts to protect and control area security are carried out through awareness (Persuasive), Prevention or prevention (prevention), and through law enforcement (repressive). Here are some Work Program Plans relating to the protection of the coastal environment from abrasion problems that are designed simply by researchers from original data sources, because many work plan programs are presented in the original data source table related to various

⁷ Burhanudin Arifin, et al, (2015). Perencanaan Pembangunan dan Pengelolaan Wilayah Pesisir Secara Terpadu Kampung Tomer Distrik Nokenjerai Kab.Merauke Papua. Merauke. h.11

environmental problems that occur in the Regency Merauke, in the following table, is focused on the work program plan of the Department of the Environment in protecting the Coastal Environment from the problem of coastal abrasion.

Table 1.2 Environmental Services Work Program for 2017 -2019

No	Name of Activity / Work Plan Plan	Aim	Source of funds
1	Coastal Protection Program	Rehabilitation and Conservation of Coastal Areas.	DAK
2	Grow Love for Coastal Through Mangrove Planting on the coast of Merauke	Rehabilitation and Conservation of Coastal Areas	DAK
3	Environmental Socialization in Kab. Merauke	Build public awareness of the importance of sustainability and management of natural resources in the district. Merauke	DAK

Source. Environmental Status Report Kab. Merauke

That is the program of planning activities to overcome the abrasion problem carried out by the Office of the Environment, periodically it is adjusted to the regional budget and the main tasks of the relevant agencies, which based on the results of direct interviews with the Head of Conservation Office of the Merauke Regency Environmental Department said that the planning was a Strategy and Program has been carried out in 3 villages along the coast from 2017-2019 as for the planning strategy as follows:

Strategy 1. Collaboration between government agencies and the public and private sector.

The program:

1. Procurement of coconut seeds and financing
2. Procurement of mangroves that are planted in stages at the protection location
3. Monitoring and evaluating the growth of coconut and mangrove trees.

Strategy 2. Coordination with the Village regarding the use of beach sand.

The program:

1. Together with the village administration to socialize the benefits of coconut and mangrove planting and the use of beach sand as abrasion prevention.

2. Coordination with customary landowners for permission to plant mangroves in their location.
3. Together with the village administration to draw up a map of the potential utilization of coastal resources.

Expected results :

1. Socialization of the benefits of coconut and mangrove planting,
2. The return of mangrove forests to their natural functions.

Following the purpose of planning abrasion prevention by planting mangroves, therefore the program planning made by the Office of the Environment on the prevention of coastal abrasion is appropriate, according to the objectives and objectives of the activity program.

Program for Implementing the Office of the Environment Policy Against the Prevention of Beach Abrasion in Merauke Regency.

Make Physical or Natural Efforts:

Community-based mangrove ecosystem conservation management activities This program is being carried out to save the environment and to anticipate the pace of abrasion activities in several coastal areas of the Merauke Regency, which are planting mangroves and planting coconut. The program aims to restore mangroves and coconut trees that have been uprooted, while also to re-develop the barrier shield naturally through these plants. The mangrove conservation program has been carried out by the Government and several non-governmental environmental organizations. This activity has been started since the beginning of 2007 through the Coastal Regional Protection program implemented by the State Ministry of Development of the Middle East in collaboration with the Merauke Regency Government and has been scheduled as a routine activity. According to the latest data of the last two years directly submitted by the Office of Environment officials from the interviews that there is a program of activities carried out namely through planting mangrove and coconut seedlings and also they are conducting direct socialization to the Payum, Wamal, and Urumb villagers who live along the coast

beach which is the location of the focus of prevention of abrasion from the Merauke Regency Environmental Agency, the activities are carried out as follows:

1. Type of Activity: Nurseries, planting and maintenance of mangrove and coconut plants in 2017-2019 gradually as many as 12,000 seedlings, namely mangrove nurseries totaling 10,000 seeds and coconut nurseries totaling 2000 seedlings which are dubs in several locations including: Along the Payum, Wamal Coastline, and Urumb

The activity of this program aims to re-develop damaged natural shields so that they can grow back and become natural shields from the onslaught of the waves of the sea.

2. Type of activity: Coordinating with the village government and local indigenous people to conduct socialization to maintain the preservation of the coastal environment by utilizing the planting of coconut seeds and mangrove seedlings as well as the use of coastal sand as prevention of abrasion. The activity has been carried out for the last two years, from 2017 to the last, in November 2019, in three different locations, namely Payum, Wamal, and Urumb villages.

The activity of this program aims to provide an understanding of the adverse effects of sand extraction on the coast so that it causes abrasion, and encourage the community to use or utilize natural resources properly by remembering or paying attention to the carrying capacity of nature, as well as building and instilling community awareness of preserve the environment.

Thus the activities carried out by the Office of the Environment as a countermeasure for abrasion from the last two years namely from 2017 to 2019 have been carried out as fully as possible, but in 2020 the Office of the Environment has not continued the program of activities because it is constrained by weather conditions and several factors that are less supportive the two types of programs are carried out, but the Office of the Environment will continue to strive to continue to conduct aberration prevention activities programs in Merauke Regency as a form of environmental preservation and optimization of coastal abrasion management.

Authority of Regional Environmental Services Policy

The Legal Basis for the authority of the Regional Government through the Department of the Environment to implement a policy of preventing coastal abrasion in Merauke Regency is seen in Law No. 32 of 2009 Chapter IX concerning the Duties and Powers of the Government and Regional Governments Article 63 paragraph 3 states that in the protection and management of the environment, letter (a) of the district/city government has the duty and authority to determine district/city level policies, letter (f). develop and implement cooperation and partnerships; letter (k). Implement policies on the procedures for recognizing the existence of indigenous peoples, local wisdom, and the rights of indigenous and tribal peoples related to environmental protection and management at the district/city level; letter (n). Give education, training, coaching, and appreciation; letter (p). Carry out environmental law enforcement at the district/city level. Based on Article 14 of Law No. 23 of 2014 concerning the Regional Government, it is stated that environmental control is a compulsory matter which is the authority of the Regional Government for Regencies / Cities.

As with the results of research through interviews by Mr. Samuelrino as Head of the Conservation Division of the Merauke Regency Environmental Office said that "The implementation of policies in handling abrasion problems in several locations prone to abrasion disasters in Merauke Regency, conducted by the Office of the Environment based on the mandate of laws and regulations regarding the management of the environment which is given authority to the regional government through the Department of the Environment to carry out responsibilities in the field of environmental protection and management. Whereas concerning the problem of exploitation of coastal sand mining is the responsibility of the Department of Environmental Impact Management of Mining and Energy. So in his conclusions, he said that the policy undertaken by the Office of the Environment is to overcome the abrasion problem that occurs by planting mangrove and coconut seedlings if the problem of exploitation of coastal sand excavation from the Office of the Environment is done only in the form of socialization of environmental damage arising from these activities to the community because according to him controlling

the exploitation of sand excavation is the authority of the Sat Pol PP and the Merauke Regency Mining and Energy Control Office.

Effectiveness of the Office of Environmental Policy in Abrasion Mitigation

The problem of environmental destruction from sand excavation since the 2000s threatens coastal ecosystems, it emphasizes the role of the Government so that it is obliged to establish policies and regulations, guidance, which are more serious in increasing the effectiveness of handling the problem of coastal abrasion, to maintain sustainable control environmental functions and quality in the supervision of the Government.

The policy of handling the problem of environmental damage can be said to be effective if a bureaucracy or an institution authorized to carry out an activity following their duties and responsibilities as the executor of the task to carry out the policy to deal with environmental damage problems. so that the Government especially the Regional Government undertakes policies to overcome and restore the environment that has been damaged by the excavation of beach sand. It is necessary to know the effectiveness of the handling of abrasion countermeasures carried out by the regional government through the Office of the Environment in terms of legal effectiveness factors implemented.

Legal Factors of Protection

From the results of research on the application of environmental protection law to sand excavation, the Regional Government firmly and wisely in implementing environmental damage control programs, through the compilation of more effective legal instruments that can prevent actions or activities carried out to avoid the occurrence of something unexpected. but still, pay attention to human needs and limited resources that provide needs. The emergence of problems in the regulation of sand multiplication originates from internal factors which are suddenly another policyholder itself, namely the government. Internal factors in the government include lack of good coordination in institutions, lack of responsiveness and professionalism, limited operational funds, and minimal operational infrastructure. the problem of

internal factors will result in not as optimal as possible government agencies to carry out their duties and functions in applying the rules made.

The implementation of special legal instruments that are effective in following up on abrasion problems by the Merauke Regency Government does not yet exist, in the absence of this Regional Regulation, so that the activity of sand excavation on the coast is still ongoing. The policies implemented by the Merauke Regency Environmental Agency only refer to the main tasks and functions of the Regional Unit Work Unit and are based on regulations on environmental protection.

Although there are no effective legal instruments in the regions, to support and support the Office of the Environment in implementing environmental damage control in Merauke Regency. However, abrasion prevention is still carried out considering the safety of residents living along the coast which always feel threatened from coastal abrasion, besides that the problem of abrasion is an issue contained in Papua Province Regional Regulation Number 3 of 2019 concerning Regional Medium-Term Development Plans (RPJMD) Year 2019-2023 of several issues that occurred but did not have a clear focus. Because in Papua Province's RPJMD it is not only focused on the problem of abrasion but also other issues discussed, such as socio-economic problems of society, education, health, and also governance. In addition to the fact that there is no special regulation that regulates abrasion in Merauke Regency, the Environmental Service carries out its main duties and work functions while remaining in compliance with Law No. 32 of 2009 and Law No. 23 of 2014 Article 14, as a basis in implementing policies in the context of controlling environmental damage.

CONCLUSIONS

The implementation of the program of activities carried out is the goal of the policy made by the Merauke Regency Environmental Agency as a response to the abrasion problem that occurred in the three villages that have met its target of achievement, said to achieve the target because the program activities carried out are following the planning in implementing the policy in three villages namely Payum, Wamal, and Urumb villages, namely by planting mangrove and coconut

seedlings as a goal to be able to restart the function of these plants as natural shields that can withstand the onslaught of the waves. besides, the Department of the Environment has also conducted socialization to provide understanding for the community about the importance of preserving the environment and also at the same time giving good directions to the community to no longer conduct sand mining on the coast. The Department of Environment's policy has been carried out from two years in 2017-2019, but in 2020 it has not been continued because of constraints from the conditions in the field that are less friendly and some internal technical problems. Furthermore, the activity program may the Merauke Regency Environmental Office and assisted by the village government in 2017 to 2019 cannot be said to be effective, this is seen from the continued sand excavation, this is due to the lack of individual awareness of the community in the utilization of natural resources on the coast.

Abrasion that occurs along the coast of Merauke Regency is not only caused by natural factors, but more are caused by activities carried out by humans, namely by mining the beach sand so that it damages the coastal ecosystems, because there are recommendations that I want to convey, namely the Regency Government Merauke must have a Regional Regulation specifically regulating coastal sand mining. The existence of a Perda will greatly assist government officials to ensnare violators with the Perda, to reduce the problem of abrasion which is created from sand mining. Besides, further enhancing cooperation from the Government through agencies related to the village government to increase public awareness to preserve the environment and be able to manage the utilization of natural resources as efficiently as possible, to reduce the level of abrasion problems in Merauke Regency.

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