

Factors that Influence the Effectiveness of Sanctions in Mangrove Forest Preservation Efforts

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Abstract-The main cause of destruction of mangrove forests is a disruption of human activities. More than 90% of mangrove forest damage is caused by development in the fields of plantations, fisheries, settlements, infrastructure and tourism. Damaged mangrove forests cause abrasion and disruption of natural resources, especially various kinds of fish that live around the roots of mangrove trees. One of the government's efforts to protect mangrove forests is to enact Law Number 27 of 2007 concerning Management of Coastal Areas and Small Islands. The problem of this research is what factors influence the effectiveness of sanctions in the effort to preserve mangrove forests? This type of research uses empirical legal research. This research took place in four districts in East Java Province. The four districts include Lamongan Regency, Gresik Regency, Pasuruan Regency and Probolinggo Regency. Informants include people who live around the mangrove forest. Data consists of primary data and secondary data. Techniques for collecting data using interviews and documentation. Data analysis using qualitative analysis. The results of the study show that the preservation of mangrove forests is influenced by several factors. The first factor, the community's knowledge of legislation related to mangrove forests is still very lacking. The second factor, law enforcement officials in carrying out their roles related to the preservation of mangrove forests is still not optimal. In fact, village heads who are local leaders have a maximum role.

Keywords- *Effectiveness of Sanctions, Conservation of Mangrove Forests, Community Knowledge*

I. INTRODUCTION

The coaching and development of educational sports Indonesia as the largest archipelagic country in the world has a coastline of 81,000 kilometers. On the coast there are a variety of trees, one of which is mangrove. Mangroves are plants that can develop well in Indonesia. According to Bengel [1], mangrove trees in Indonesia have species diversity. In fact, the area of mangrove forests in Indonesia is second in the world [2]. This condition is a natural resource asset that is very valuable for Indonesia.

The function of mangrove forests is to maintain the coastline, reduce the impact of tsunamis and storms, provide a breeding ground for various marine biota [3]. Mangrove trees that grow along the coast keep the land from abrasion. Abrasion causes the land to erode so that the land area becomes narrow. In addition, the mangrove tree serves as a shield to guard the land from tsunamis and storms. Furthermore, the existence of mangroves has a close relationship with fisheries. Various types of fish that

have high economic value spend part of their life cycle in the mangrove area. For example, shrimp and crabs. Thus, mangrove forests have great benefits for life.

East Java is one of the provinces in Indonesia that has a mangrove area. The area of mangrove forests in East Java in 2014 was 84,479,072 hectares. The mangrove forest has various conditions. The area of mangrove forest in good condition is 21,119.77 hectares. Moderate conditions have an area of 28,139.98 hectares. The damaged condition has an area of 35,168.64 hectares. The condition of unidentified mangrove forests has an area of 50.68 hectares. The majority of the condition of mangrove forests in East Java is damaged, amounting to 41.63% [4].

Mangrove forest damage is caused by various things. The main cause is the change in the use of mangrove forests. Development in various fields, such as plantations, fisheries, agriculture, ponds, settlements, infrastructure and tourism has caused damage to mangrove forests. In fact, most of the waste (85%) comes from human activities on land and in the sea, directly or indirectly, eventually discharged into the sea [4]. This condition affects the mangrove ecosystem.

Based on the mangrove conditions mentioned above, the government seeks to protect mangrove forests. Government efforts by implementing a set of laws and regulations. On August 6, 2013, the government has enacted Law Number 18 of 2013 concerning Prevention and Eradication of Forest Destruction. There are several considerations by the government to issue the Law. First, the destruction of mangrove forests caused by illegal logging, mining and plantations without permission, damage to socio-cultural life and the environment and increasing global warming. Secondly, forest destruction is a crime that has extraordinary, organized and cross-country impacts that threaten people's lives. In the context of effective prevention and eradication of forest destruction and the provision of deterrent effects a strong legal basis is needed and is able to guarantee the effectiveness of law enforcement. Third, existing laws and regulations have not been able to effectively deal with eradication of forest destruction.

In an effort to protect forests, especially mangrove ecosystems, the government has issued Law No. 27 of 2007 concerning Management of Coastal Areas and Small Islands. Article 73 of the Law provides strict sanctions on the perpetrators of mangrove forest destruction. The

sanction is a minimum imprisonment of two years and a maximum of 10 years with a minimum fine of Rp. 2,000,000,000.00 (two billion rupiah) and a maximum of Rp. 10,000,000,000.00 (ten billion rupiahs).

Law No. 18 of 2013 concerning Prevention and Eradication of Forest Destruction and Law Number 27 of 2007 concerning Management of Coastal Areas and Small Islands has the aim of providing shock therapy by including severe sanctions for those who destroy mangrove forests. However, activities that damage mangrove forests still occur. This means that the sanctions listed in the Act are not effective in achieving their objectives. Based on the background above, the problem is what factors influence the effectiveness of sanctions in the effort to preserve mangrove forests in Lamongan Regency, Gresik Regency, Pasuruan Regency and Probolinggo Regency, East Java Province?

II. RESEARCH METHOD

This type of research is empirical legal research. The research locations are in four districts in East Java Province. The four districts include Lamongan Regency, Gresik Regency, Pasuruan Regency and Probolinggo Regency. Data consists of primary data and secondary data. Primary data obtained from interviews with informants. Informants include people who live in mangrove forests. Secondary data consists of primary legal material and secondary legal material. Primary legal material consists of laws and regulations related to mangrove forests. Secondary legal materials include various literature and articles from various journals relating to research problems. Techniques for collecting data using interviews and documentation. Data analysis using qualitative descriptive analysis.

III. FINDINGS AND DISCUSSION

1. *The Social, Cultural and Economic Context of the Coastal Community of Gresik Regency*

Coastal communities are a group of people who live in coastal areas with a source of economic life depending directly on the use of marine and coastal resources. Coastal communities include owner fishermen, fishing workers, fish farmers and other marine organisms, fish traders, fish processors and suppliers of fisheries production facilities.

Coastal communities are dominated by fishermen. Fishermen must face a ferocious sea to get income so that the income they want cannot be controlled. Fishermen face open access and high-risk resources. This causes coastal communities such as fishermen to have a firm, hard and open character.

Nearly a third of the area of Gresik Regency is a coastal area. The area includes Kebomas District, Gresik

District, Manyar District, Bungah District, Ujung Pangkah District, Tambak District and Sangkapura District. The community has a hard and heterogeneous character so the level of competition is very high. This condition has a high potential for conflict. The cause of the conflict is the use of land around the coast causing land grabbing. Moreover, there is an assumption that the sea is an open place where everyone is free to find fish without being restricted by territory.

2. *Mangrove Forests in Gresik Regency Mangrove*

Forests in Gresik Regency have an area of around 3,663.63 hectares spread across ten sub-districts. The sub-districts that have mangrove areas are Bungah Subdistrict, Cerme District, Sit Sampanan District, Gresik Subdistrict, Kebomas District, Manyar District, Panceng District, Sedayu District, Ujung Pangkah District and Wringin Anom District [5].

The spread of mangrove ecosystems is on the beach and into the land (Environmental Agency of East Java Province, 2011). The cause of the destruction of the preservation of mangrove forests in Gresik Regency is a disturbance from human activities. The damage is caused by illegal logging of mangrove trees, coastal reclamation for settlement expansion, development in the industrial sector and expansion of ponds.

The density of mangrove trees in Gresik Regency is in moderate density (Environmental Agency of East Java Province, 2011). Based on the Minister of Environment Decree Number 201 of 2014 concerning Standard Criteria and Guidelines for Determining Mangrove Damage, the category of moderate density is if the mangrove tree amounts to $\geq 1,000$ to $<1,500$ trees per hectare. Ecologically, the condition of mangrove forests is relatively threatened. This is the background of the Gresik Regency government issuing Gresik District Regulation Number 8 of 2011 concerning Regional Spatial Planning 2010-20130. Article 79 paragraph (1) states that: "The mangrove conservation sub-area includes the coastal border area from the direction of the beach Mengare Bungah District, the coast along Ujung Pangkah District, and the coast along the Panceng District with an area of approximately 2,877.11 hectares."

3. *Social Context, Culture and Economy of Coastal Communities in Lamongan Regency*

The northern coastal region of Lamongan Regency stretches for 47 kilometers. The coast has potential fish resources. The condition of the north coast of Lamongan Regency has the characteristics of a landau sea, calm and not deep. The Lamongan Regency community is very dependent on the potential of fish on the north coast. The fishermen cannot go to sea during the high wind season. For them, this season is a bad season. This is because fishermen are the main livelihood.

Brondong Subdistrict and Paciran Subdistrict are economic centers and trade in coastal communities. Community life has very dynamic characteristics. This condition is influenced by marine typology which is considered open to everyone. Everyone has no right to claim ownership of the sea. This causes competition between fishermen to get their catches.

4. *Social, Cultural and Economic Contexts of Coastal Communities Pasuruan Regency*

Characteristics of people on the east coast of East Java have differences with the people who live on the north coast. The people on the north coast have a tradition of "pandalungan" where the majority of the population has a cultural background of Madura. The tradition of "scandal" is a society that has a new culture. This happened because of the mixing of two dominant cultures, namely Javanese culture and Madura culture. Administratively, the culture of "scandal" includes Pasuruan Regency, Probolinggo Regency, Situbondo Regency, Bondowoso Regency, Jember Regency and Lumajang Regency.

Fishermen in Pasuruan Regency are categorized as poor. This is because the arrests are still traditional. They use small motorboats so the area is limited. Fish catches have few fish resources.

5. *Mangrove Forests in Pasuruan Regency in Pasuruan Regency*

The mangrove ecosystem in Probolinggo Regency is located in Dringu District, Gending District, Kraksaan District, Pajajaran District, Tongas District and Wonomerto District. Based on Article 65 paragraph (2) letter f Regional Regulation of East Java Province Number 6 of 2012 concerning Management and Zoning Plans of Coastal Areas and Small Islands in 2012-2032 states that the development of mangrove coastal reserves in Probolinggo Regency includes Tongas District, Sumberasih District, Dringu District, Gending District, Pajajaran District and Kraksaan District. Although these regulations have provided protection for mangrove ecosystems, the majority of mangrove ecosystems in Probolinggo Regency are classified as very rare. The density in the classification is 86.87 hectares [5].

6. *Community Meaning of Mangrove Forest*

Awareness from individuals will have an influence on attitudes and behaviors in everyday life. Based on interviews with the informants the results were 90.6% stating that mangrove forests have a role to preserve the coastal environment. They interpret the mangrove ecosystem as a protection from abrasion. Mangrove roots are expected to bind soil and sediments from the flow of sea water. The community also believes that mangrove forests protect from large sea waves. Natural protection from mangrove ecosystems is better than breakwater structures. Besides that, mangrove forests are interpreted

as a source of nutrition for various marine biota and shorebirds. The many types of marine biota that live in mangrove areas, this shows the sustainability of mangrove forests. Indeed, there is a positive linear relationship between the area of mangrove forest and the number of marine biota, where the wider the area of mangrove forest, the higher the production of marine biota and vice versa [6]. This condition makes sense if you see the majority of coastal communities working. The majority of coastal communities depend their lives on mangrove forests. Data shows that fishermen accounted for 22.7% and farmers accounted for 14.8%.

Today there are still many efforts to destroy mangrove forests. This is due to 17.2% of coastal communities stating that mangroves are commodities that are bought and sold for income. Some products produced by mangrove vegetation are fuel wood, wood charcoal, building materials, boat equipment, furniture [6]. Promising economic value causes the extent of mangrove forests to be increasingly threatened. This condition is related to the income of coastal communities. The majority of informants have very low monthly income. The details of his income are 23.4% below IDR 500,000, and 24.2% between IDR 500,000 and IDR 1,000,000.

7. *Factors that influence the effectiveness of sanctions in mangrove forest conservation efforts*

The legal fictie theory says that a person accepts what really does not exist, as being or actually exists as nothing. According to Annurdi, the use of fiction in law has several reasons, one of which is to achieve legal certainty. This theory assumes that once legal norms are implemented then at that time everyone is considered to know the law [8]. The legal fictie is contained in Article 80 of Law Number 27 of 2007 which states that every person knows this law, orders the enactment of this Act by placing it in the State Gazette of the Republic of Indonesia.

The fact is that coastal communities still lack knowledge about relevant laws and regulations. Based on the results of the study, the people who knew about the legal product of the conservation of mangrove forests were 70.3% and those who did not know were 29.7%. This will result in them not understanding the regulation. Legal understanding has relevance to legal substance. In this case the benefits, objectives, types of violations of the law of mangrove forest conservation and forms of sanctions for destroyers of mangrove forests.

Based on the results of the study, 75.8% of coastal communities did not know the type of violation of the law related to the mangrove ecosystem and the remaining 24.2% knew the type of violation. Furthermore, 83.6% of the people did not know the form of legal sanctions for mangrove forest destroyers and 16.4% knew the form of legal sanctions. Thus, the legal knowledge of the

community regarding legislation regarding the mangrove ecosystem is low.

This misunderstanding will certainly influence legal behavior. This is in line with the opinion of Soetanyo Wignjosoebroto. The opinions are as follows. Without the rise of awareness and willingness of the community to follow what is ordered to be done or not done by law voluntarily, then every effort to make the law work in the life of the community will fail and cannot be realized as expected. The threat of any sanctions will not be able to control people's behavior [9].

Other important data obtained is a source of information from the community in accessing legislation regarding mangrove ecosystems. Data shows that 33.6% of the community obtained information on conservation law related to mangrove forest from the village head, 10.2% obtained from local government apparatus, 9.4% obtained from non-governmental organizations, 7% from mass media, and 1.6% from law enforcement officers.

The data illustrates that people who live in mangrove areas know the legal products about mangroves from parties that have close relations both socially and regionally. This is indicated by the high source of information originating from the village head. This means that the source of information shows a strong attachment to local leaders. On the contrary, law enforcement officers are not maximal in providing socialization regarding these laws and regulations.

IV. CONCLUSION

The causes of the ineffectiveness of the legal sanctions for mangrove forest preservation are: (1) community knowledge about legislation related to mangrove forests is still very lacking, and (2) law enforcement officials in carrying out their roles related to the preservation of mangrove forests are still not optimal. In fact, village heads who are local leaders have a maximum role.

REFERENCES

- [1] Central Bureau of Statistics, *Indonesian Environment Statement*, 2011
- [2] A. Fauzi, et.al., *Indonesian Environmental Status*. Jakarta: Indonesian Ministry of Environment, 2011
- [3] M. Jia, et.al., *Evaluating the Effectiveness of Conservation on Mangroves: A Remote Sensing-Based Comparison of Areas in Shenzhen and Hong Kong, China*. Remote Sens Journal, vol. 8 no. 627, 2016.
- [4] Central Bureau of Statistics, *Statistics of 2015 Sea and Coastal Resources*, 2015
- [5] East Java Province Environmental Agency, *Report on the Environmental Status of the East Java Province in 2011*, 2011
- [6] Y. R. Noor, et. Al., *Guide to Introduction to Mangroves in Indonesia*. Logistics: Directorate General of PHKA / Wetlands International Indonesia Program, 2012.
- [7] S. Wignjosoebroto, *Law in Society*. Yogyakarta: Graha Ilmu, 2018
- [8] Annurdi, *Application of Legal Fiction (Fictie Van Wil En Vertrouwen) in Standard Contracts*. Journal of Media Law Bhakti, vol. 1 no. 2, 2017

- [9] N Huda, Y Saefudin, MB Syakirin , *Strengthening Indigenous Law to Make a Sustainable Development of the Coastal Area and Small Islands in Indonesia*, SHS Web of Conferences 54, 04003