

ANALYSIS OF PERCEPTION AND PARTICIPATION OF DAMAGE IN THE COASTAL MANGROVE BREBES DISTRICT CENTRAL JAVA

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ABSTRACT

The purpose of this study was to clarify the possible correlation between the perception of public participation in the mangrove and abrasion damage in coastal areas Brebes and effective strategies to address them. Research carried out for four months, from June to September in 2012.

The results showed that people in Brebes County coastal areas have a pretty good perception of the mangrove forests are mostly stated that mangrove forests have an important function as a breakwater to reduce abrasion, as well as shelter and feeding for children fish and animals Other small. Community participation in the conservation of mangrove forests belong to the category less this is shown from the results of the participating categories more unfavorable than participating either category. Level of community participation in the conservation of mangrove forests is influenced by age and level of public perceptions of the mangrove forest. In order to improve the condition of the existing mangrove forest, there should be socializing or reforestation activities of the local government in the management and utilization of sustainable mangrove forest ecosystem, while the implementation of rehabilitation activities should involve the community from the start until planning and evaluation activities as well as the cooperation between the government and the public.

Keywords: perception, participation, mangrove.

I. INTRODUCTION

1.1 Background

Mangrove is a general term used to describe varieties of tropical beach community that is dominated by a few species of trees and shrubs that typically have the ability to grow in the salty waters. Brebes County coastal area of Central Java Province along 65.480 km, partly overgrown with mangrove beaches. Extensive mangrove in Brebes County in 2000 was 505 acres where 210 acres are in good condition, 205 acres in moderate condition and 90 acres in a damaged condition (Forestry and Plantation Brebes District, 2000). Ironically in 2008, precisely the extent of mangroves in coastal areas Brebes stay at 257.11 hectares (60%), scattered from Losari District 25.43 acres, 18.95 acres Tanjung District, Subdistrict Bulakamba 39.55 acres, District Wanasari 27, 29 acres, 145.89 acres and Brebes District (Department of Fisheries and Marine District Brebes, 2008). Mangrove forest loss are reciprocally will lead to coastal erosion. Until 2000, covering coastal erosion Brebes akresinya area of 789 hectares, while 310 hectares. From 2000 to 2008 abrasion in Brebes County reached 640.45 acres with a shoreline length of 27.043 km and accretion occurring 815.76 hectares covering the 27.147 km long coastline. To reduce the impact even greater pressure on mangrove resources, it would require intensive community empowerment so that they can make the community as participatory main component driving the sustainable management of mangrove forests. In contrast to the lack of public understanding of the function and role of mangrove forests may lead to decreasing the environmental carrying capacity of coastal resources and the quality of life of local resident communities (Basyuni, 2002).

1.2 Problem Formulation

1. The extent to which perception and public participation in the mangrove and abrasion damage in coastal areas Brebes?
2. How effective strategies menanganani mangrove destruction and coastal erosion in Brebes?

1.3 Research Objectives

1. Explain the possibility of a correlation between the perception of the public participation against abrasion damage to mangroves and coastal areas as well as handling in Brebes district.
2. Finding effective strategies for dealing with mangrove destruction and coastal erosion in the Brebes area.

1.4 Benefits of Research

1. This research is academically expected to benefit in developing a method of treating damaged mangrove and coastal erosion in coastal areas Brebes.
2. This research is expected to produce practical recommendations on the strategy of handling damage and abrasion mangroves in coastal areas Brebes.

1.5 Research Methods

This is a descriptive study using data-quantitative field observations for comparison of secondary data from relevant parties. Researchers used a limited scale (grounded survey) that focused on people who were directly involved in mangrove forest conservation activities. Samples were purposively selected (purposive sampling), the population of men with shellac consideration mangrove plants located in areas relatively distant from the location of settlements that are associated with these plants is the male population. Processing of the data used in the form of a simple regression analysis to determine the perception of the relationship with community participation. Further multiple regression analysis is used to determine the level of influence the perception and the level of public participation in the mangrove ecosystem damage / abrasion.

1.6 Place and Time Research

The research was conducted in Central Java Brebes for 4 months in June to October 2012

II. RESULTS AND DISCUSSION

4.2.1. Public Perceptions About Mangrove

Mangroves are plants that are generally known by the public as a book / bongko (mangroves), of the 75 respondents, 75 people (100%) expressed knew / know this plant, meaning the plant is not an alien plants for respondents. In general, they obtain information about the mangroves of education by the government, at the time of counseling meetings fishing gear for fishing communities around. While 62.66% of respondents knew of an employment-related mangrove mangrove and mangrove 10.66% of respondents knew of the conversation with the neighbors. To a statement about the public's knowledge about the mangrove habitat, most states can find mangroves along the coast (29.33% of respondents) and on the right / left of the river (70.66% of respondents), and of the 75 respondents who claimed to see mangroves along beaches, ponds, right-left channel and the river as much as 2.66% of respondents.

Mangrove species they know, in general, is a green mangrove (73.33% of respondents) and Api-api (14.66% of respondents), while respondents who knew all like mentioned four types of mangrove (mangrove green, red, tanjaq / tancang, and fire - fire) of 9, 33% of respondents, and the least known is the type tancang respondents (6.66% of respondents). More familiar green mangroves compared to the others because it is a lot in the research area is the green mangrove species. Their green mangroves along the river known as the dominant green mangroves that grow their day-to-day work more closely with the green mangroves, although besides that there are also types of fires and types of Nipah. Mangrove benefits, the majority (46.66% of respondents) expressed as a shelter and refuge and foraging for juvenile fish, shrimp and other small animals. Expressed as a breakwater and reduce coastal erosion (41.33% of respondents), and the states of mangroves to strengthen the embankment pond, attached and also place of refuge for young shrimp molted only (5.33% of respondents) and then stating breakwater and shelter shelter and foraging for fish children only 8% of respondents. To statements regarding mangrove, 78.66% of respondents said maintaining good mangrove is growing, 10.66% of respondents stated planted by the river and beaches with mangroves, 6.66% of respondents stated that collecting fruits for seedlings and old that there are at least 4% of respondents who chose to plant mangroves in the pond dikes. Of 75 respondents, most of them expressed choose one of the alternatives that exist to maintain good plant mangroves are growing, according to them it is easier to do. In general, they stated that the collection contained a dense mangrove plants on either side of the river and on the beach, then they are declared based on the observation that there is a collection of mangrove trees along the river flow Selan from the beginning until now increasingly (16% of respondents), fixed (21.33% of respondents), and which states the less (62.66% of respondents).

According to their observations related directly to the use of mangrove, 86.66% of respondents said no, the timber is, while 2.66% of respondents said there was taken sap and its fruits, and there are 10.66% of respondents said no. That villagers utilize mangrove for timber as house building and other purposes, the appropriate answer fact observed in the study while doing an interview on the public. So the direct utilization of mangrove exist, but the negative impact of their activities on the existence of mangrove forests has not been felt. In addition to cutting down mangrove trees there are also people who use the mangrove community directly, they are the biological benefit of mangrove forests that grow on the banks of the river fishermen whose livelihoods day - the day on the river. This group are those who have a good perception of the mangrove forest. Of 75 respondents, 9.33% of respondents said they want to plant mangroves around the canal where they lived, 13.33% of respondents said they want to plant mangroves around their plantations, and there are 77, 33% of respondents expressed no desire to plant mangroves the grounds of the existing officers.

So the observation of respondents who have a desire to plant mangrove those who have estates and those residing on the edges of the river, their self-awareness to do so because they already know and realize the benefits of mangrove forests, while those who do not plantations have and also reside away from the river bank had no desire to plant mangroves on the grounds that the existing officers to deal with it. Statement regarding whether the respondent has ever done in the area of mangrove planting projects, 85.33% of respondents said never, one respondent stated once and 11 people (14.66% of respondents) claimed not to know.

4.2.2. Community perceptions and factors - factors Affecting

Community in this case is represented by the 75 respondents who filled out questionnaires and 3 respondents selected to be interviewed, including relevant agencies, respondents

consisting of various ages, education levels and occupations, have responded well. Regarding marital status almost all respondents have a family, only four people who are not married. From the observation that there were four respondents who have a farm, but not all pond owners are farmers farms, two ponds owners who do not work as fish farmers. Regarding the second job there (14 people) of respondents who have a second job in addition to their main job. In general (93.33% of respondents) was residing in the village for more than 10 years, only one new respondent resides less than 5 years and there were four respondents who reside under 10 years old.

Regarding group activities they participate, `study group (9.33% of respondents), which follows a group of fishermen there (6.66%) and (5.33% of respondents) that follows a group of farmers, and the number of respondents who did not follow a group in society is (78.68% of respondents), to farmer groups usually hold regular meetings once a month every Friday night, and for a group of fishermen held a meeting if there is a need, in general, they are always present in the meeting. In order to find the link between perception and public participation in the conservation of the mangrove forests was scoring, can be seen in table 1, to answer questions about the perception of mangroves produce a score range of 1-10. To determine community participation in mangrove conservation, see the answer to the question, and after scoring obtained a score range 1-15 for participation, which is a dependent variable, grouping is done in two categories of participation are: less and better, for further analysis. Respondents with a total score of 1-6 was included in the group to participate less, whereas respondents with a total score of 7-15 including the participating groups. Based on the calculation of unknown 46.64% of respondents participate in either category, and 53.32% of respondents categorized as less participate. Data analysis to find the relationship between independent variables and the dependent variable is done with the help of SPSS 15 program. Dependent variable (Y) ie participation while each independent variable - each are: X1 = age; X2 = level of education; X3 and X4 = work = perception. From the analysis of the regression equation $Y = 96.970 + 16.527 X1 - 0.392 X2 - 2.523 X3 + 8.372 X4$. Furthermore, the results of t-test (to test the significance of regression coefficients related to the independent variable) indicates that the variable X1 (age) and X4 (perception) has a price t respectively 4,736 and 3,100, which both have a price greater than the price table t 2.36 ($P < 0.05$) and significant price 0.00 and 0.003.

Dependent variable (participation) and then grouped into two categories, namely the lack of participation and good participation, which results in 35 respondents classified as either category and 40 participating respondents who participated less classified category. Subsequent analysis is discriminant analysis, the average similarity test group to see the connection between the variable and dependent variable tergantung. The magnitude of the price F describes the many connections between the independent variables and the dependent variable. Furthermore the size of the association between the two variables was assured with a significant price, stating the lower prices mean significantly more convincing truth the many connections that exist. From the analysis above in step with the price obtained free variable F of 16.970 is the X1 variable (age) and 2,850 are variable X4 (perception) with significant price 0.00 and 0.03.

From the analysis, the multiple regression analysis and discriminant analysis it can be concluded that:

1. There is a link between age and community participation in the conservation of mangrove forest at a price regression coefficient 16.527; $t = 4.736$ ($p = 0.00$) and F price of 16.970 ($p = 0.00$)
2. There was no association between level of education and community participation in the conservation of mangrove forest with the price coefficient -0, 392; $t = -0.676$ ($p = 0.501$) and the price F of 0.156 ($p = 0.694$)

3. There is no relation between the work of community participation in the conservation of mangrove forest at a price regression coefficient -2.532; $t = -1.286$ ($p = 0.203$) and the price F of 0.324 ($p = 0.571$).
4. There is a relation between the perception of the community participation in mangrove conservation mangrove forest with the price coefficient 8.372; $t = 3.100$ ($p = 0.03$) and the price F of 2.850 ($p = 0.00$).

Then discriminant analysis discriminant weights intercept and two independent variables that are known to be connected with the dependent variables. Linear equations obtained for the first category (less participation) is $Z_{jk} = -3.644 + 1.356 + 0.6223 X_1$ to X_4 and the second category (either participation) is $Z_{jk} = -5.231 + 0.0652 + 0.4273 X_1 X_4$.

4.3.3. Public Perceptions About Mangrove

Public perception of the mangrove has been classified as good responders had a pretty good perception, they assume that the mangroves that grow on the beach, on the right / left channel rivers and ponds in useful as a wave barrier thus reducing coastal erosion and embankment ponds hold, so it is considered necessary to maintain mangrove plants are already growing.

In general, they can find mangroves in all the places mentioned in the questionnaire, and they also get to know some kind of mangrove. Respondents whose daily activities are directly related to the mangrove has a good perception. Still a small fraction of respondents who trust the ecological benefits of mangrove forests, there are some people that started with his own awareness of mangrove seedlings planted on the edge of their estates, and there are also people who still keep the mangrove trees that grow in the channels where they lived were on the river bank this sort of thing needs to be maintained in order to maintain resource sustainability. Local people already know the economic benefits of mangrove plants. It can be seen from the results of the interview to the respondent that a lot of people around who cut down mangrove trees for building materials or the fishermen who cut down mangrove trees for the purposes of their gear, but it can be considered as the mangrove trees felled by the community for various purposes is a mangrove tree old and growing away from the edge of the river and the beach, from a number of their respondents stated that they also understand the benefits and uses of mangrove true for the environment.

4.3.4. Community Participation In Mangrove Forest Conservation

Categories of community participation in the conservation of mangrove forests were divided two groups of categories, which is good and which is not participating to participate. Judging from the results of the analysis can be explained that the age effect on participation in the conservation of mangrove forest, which is indicated by the value of the highest regression coefficient that is equal to 16.527 with a t of 4.736, much higher than t table that only has a value of 2.36 ($P < 0, 05$) as well as the high price of F (16.970) and very convincing which is significant 0.00. Grouping of respondents from the group consisting of less participation in all categories of age groups ranging from the young to the elderly, as well as for groups participating either .. The older they are the higher the environmental concerns, wisdom will arise with age.

Level of community participation in the conservation of mangrove forests is not influenced by the level of education. Education level of the respondents includes 4 categories, namely: Not The End SD / MI, End Primary School / Junior High End / MTs, to Graduate from high school, none of the respondents who qualified academy or university. Level of education does not have a great connection with participation in the conservation of mangrove forest, which is indicated by the regression coefficient (0.392)

with a t of 0.676 and has a price F (0.156). Of 75 respondents are mostly fishermen, in the implementation of the conservation of mangrove forests there is no connection between the work with community participation in the conservation of mangrove forests, this is indicated by the regression coefficient value price 2,532: t a price of 1,286 and has a price F (0,324) were independent variable rather than education. Participate less in group work dominated society respondents who work as fishermen as many as 46.66% of respondents, while the group also participated either dominated by fishermen as many as 24% of respondents, so for the two groups of fishermen respondents dominated occupations.

Perceptions of mangrove determine the level of community participation, it is shown from the price regression with a value of 8.372 with a t of 3.100 and at a price F of (2.850) and with the significant price 0.03. In the group with poor participation rate indicates a low perception of the mangrove forest that is as much as 72% of respondents who had less perception of the mangroves, while the group who participated either by the number of respondents who have a good perception as much as 27.99% of respondents. Seen from the above, respondents who have a good perception of mangrove forest also has a direct good participation and vice versa. From the results of the questionnaire, they show the level of participation of the question what if in his village reforestation activities will be held the majority of respondents are willing to participate, and also some of the respondents stated participate if there are benefits from the government. Those who claimed to participate if there is no reward because their jobs are very calculated. Of some of those interviewed stated they also participate if there are suitable replacements with their day job income, because if one day they leave their jobs, income will be lost.

Considerations such as the above that need to be considered by the government and the various elements that will undertake reforestation projects or activities in the community, it is like that dikatakakan Raharjo (1985), which is basically divided into two participation, ie participation is spontaneous and participation be mobilized. Spontaneous participation implies that keikutsertaan society and its participation on the basis of consciousness and kemauanya own, while participation has mobilized participation and a sense that his participation on the basis of the influence of others.

CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusion

From the research it can be concluded about perception and public participation in the conservation of mangrove forests

1. Communities in coastal areas Brebes have a pretty good perception of the mangrove forest.
2. Community participation in the conservation of mangrove forests belong to either category.
3. Community participation in the conservation of mangrove forests is influenced by age level and perception of the mangrove.

5.2. Suggestion

In order to improve the condition of the existing mangrove forest, there should be socializing or reforestation activities of the local government in the management and utilization of sustainable mangrove forest ecosystem, while the implementation of rehabilitation activities should involve the community from the start until kepelaksanaan planning and evaluation activities as well as the cooperation between the government and the public.

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