



Original Article

LEGAL PROTECTION FOR KENJERAN BEACH FISHERMEN IN THE ERA OF INDUSTRIAL REVOLUTION 4.0

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ABSTRACT

Background. The reduction in the number of fishermen over the last 3-5 years has affected the fish catch in Surabaya, for the last 5 years it has continuously decreased. The uncertainty of the income obtained by fishermen from fishing and the limited fishing gear and the current increase in fuel prices add to the heavy burden on fishermen. In addition, the influence of the west wind season. The purpose of this research was to create a problem-solving strategy and develop community skills on the Kenjeran coastline both in the management of fish, and catch of the sea around the Kenjeran coastline.

Research Method. This research was a type of Community Based Research. The research was conducted from March to June 2021, location was in Nambangan- Cumpat Fishermen Village, Kedung Cowek, Bulak, Surabaya City. The population in this study were members of the Fishermen's Group from each village, totaling 115 people. The research analysis approach is through Islamic eco-theology.

Findings. Fishing activity is the main livelihood of coastal communities so when they cannot go to sea it means they cannot fulfill their daily needs. The results of this activity found several descriptions, situations of social structure, conditions, and problems faced by fishing communities, including population density, sanitation, slum environments, natural weather which is also an obstacle for fishermen to catch fish, narrow employment opportunities, and other social inequality.

Conclusion. Efforts to understand Islamic eco-theology in the Kenjeran coastal fishing community are one of the means to conserve the coastal environment.

Keywords: Fishermen, Kenjeran, Sea.

BACKGROUND

Indonesia is an archipelago with 17,504 islands, 99,083 kilometers in length, and 6.32 million km² of water area.[1] With millions of square kilometers of sea area, the sea provides fishermen with countless natural products, tons of fish, and other marine products. The vast marine area of the archipelago contains a variety of potential resources, including fisheries, which will become a source of future livelihood if utilized optimally and preserved. Fishing communities that live and work in the archipelago's oceans are an integral part that must participate in the development of the archipelago's marine resources. In it, especially in filling the interests of these people until whenever.[2] Fish or marine products caught by fishermen have a strategic role in providing protein to fulfill one of the essential needs of humans. Because what is produced by fishermen is an essential part of fulfilling life needs, the demand for the existence of fishermen as one part of the archipelago's human life system can never be eliminated. The existence of fishermen groups is very important for the survival of other human groups. Although the sea is never satisfied to provide blessings for fishermen, tons of fish and other marine products are caught by fishermen, but fortune is not evenly distributed, and some of them are entangled in debt and poverty. In addition, according to

previous research, in general, fishermen are in a circle of problems, namely poverty, low education, inability to organize themselves, control of capital owners, and poor living standards. Observing the above phenomenon, on the other hand, the existence of fishing communities is very important for the survival of quality life for the nation (protein). But on the other hand, due to certain circumstances, the fishing community is quite alarming. So it is the government's obligation to try to empower and protect this fishing community.[3, 4]

Indonesian society certainly hopes that these empowerment programs can achieve optimal results so that if the fishing community gets the welfare of life, it will also be optimal for them to work, which in turn the wider community will enjoy as well. According to previous studies from various disciplines, especially from the social sciences and humanities, must be intensified so that the enrichment of the results of the study can help the Government and the community to see coastal and marine resources as the goal of Indonesian life in the future. Starting from here the author tries to participate related to efforts to empower fishing communities and their legal protection.[5] Not all cities/regencies in Indonesia have coastal areas. Surabaya City is lucky because it has a fairly large coastal area in the area of Gunung Anyar Beach to Kenjeran Beach. It is called lucky because the coastal area actually holds tremendous potential. Not only tourism potential but also economic and ecological potential. Realizing this extraordinary potential, the Surabaya City Government has prepared various 'ways' to organize the Kenjeran coastal area. The hope is that the Kenjeran coastal area can become a new icon in Surabaya which is a destination for local and foreign tourists.[4]

For a long time, Kenjeran Beach Amusement Park has been a destination. Now, there is the construction of the Surabaya bridge, as well as SIB (Bulak Fish Center). Later, Bulak Park will become the new landmark of North Surabaya. Well, we will further revive the potential through the arrangement of the Kenjeran coastal area. In the arrangement of the coastal area, Surabaya City Government has determined the division of structuring zones consisting of fishermen's residential areas, public areas, and tourist areas. From this concept, Surabaya City Government will try to "marry" the tourist area with fishermen's settlements, and try to develop the potential of coastal areas such as fishing villages, without changing their cultural character. The existing local wisdom is still maintained because it is an advantage that is there. The Surabaya City Government already has a marine tourism concept that has been stated in the city's vision and mission.[6]

The concept is divided into several zones. Among them is tourist zone one which is coastal tourism, tourist zone Two consists of THP Kenjeran coastal tourism, religious tourism, cultural tourism, art galleries, and extreme sports, then tourist zone three which is a fishermen's tourism village and seafood processing industry tourism. The Tourism Office has also made a master plan. It's just a matter of implementation. So far, the number of tourists coming to the Kenjeran area has shown an increase. From year to year. Foreign tourist visits the Kenjeran area, from the number of 200 tourists visiting in 2013, then increased to 300 tourists in 2014. That does not include local tourists who reach hundreds of thousands and also shows an increasing graph. This means that with what is available now, the Kenjeran coastal area can already bring in that many people. This is an opportunity that can continue to be developed, then in the future, with the increasing number of potential and variants of existing tourism, if it is worked on and interrelated, of course, the Kenjeran coast will be increasingly attractive to tourists and foreigners.

RESEARCH METHOD

This research is a type of Community Based Research (CBR), which has three main characteristics, namely community relevance (research topics following community

interests), participatory (based on participation and partnership with all stakeholders), and action-oriented (oriented to the benefits of research).[7] Some principles of CBR research include: 1) Empowering the community through engagement by identifying problems and strengths within the community; 2) Strengthening the capacity of the community's human resources (HR); 3) Equal cooperation and involvement in all research processes; 4) Disseminating knowledge and findings obtained with the community; and 5) Sustainable process. The research approach through Islamic eco-theology is a concept of thinking and a way of acting about environmental management by integrating physical aspects (nature), humans, and God to foster and increase awareness and responsibility as humans in managing the environment. The research was conducted from March to June 2021, the research location was in Nambangan -Cumpat Fishermen Village, Kedung Cowek Village, Bulak District, Surabaya City. The population in this study were members of the Fishermen's Group from each village, totaling 115 people.

FINDINGS

1. Socio-economic Condition of Kenjeran Fishing Community

The Socio-economic Condition of the Kenjeran fishing community The Kenjeran fishing community that is the focus of the research is the Bintang Samudera Fishermen group. Based on the results of observations, this fishing community is included in the wreath/dive fishing community with catches in the form of sea shells. There are 4 (four) types of seashells that are the main commodities of this community, namely green clams (*Mytilus viridis*), blood clams (*Anadara granosa*), feather clams (*Anadara antiquata*), and axeclams/scallops. The average catch of the fishing community per day reaches 50-400 kg.

2. The Attitude of the Kenjeran Fishing Community

Attitudes of the Kenjeran fishing community related to Islamic ecot ecology for coastal environmental conservation Attitudes show actions that represent pleasure or displeasure towards an object. The conception of Islam Rahmatan Lil Alamin has been explained in the Qur'an QS. Al-Anbiya's verse 107 teaches that the attitude of protecting and managing the environment is an integral part of worship and a manifestation of faith. The basics of the faith of Islamic eco-theology emphasize that one's faith is imperfect if one does not have concern for the environment and all disasters are not theological phenomena: Rp 150,000 per day (Maximum) Rp 50,000 per day (Minimum) Diesel/Solar Rp 13,000 Cigarettes Rp 24,000 PDAM Water Rp 30,000 Total Income per month: Rp 4,500,000 (Maximum) Rp 1,500,000 (Minimum) Basic needs Rp 250,000 per month Garbage Fee Rp 7000 per month Child Pocket Money Rp 30,000 per day Electricity Rp 200,000 per month Total Expenses per month Rp 2,497,000.

3. Perception of the Kenjeran Community

Perception of the Kenjeran community regarding Islamic eco-theology for environmental conservation The perception of the Islamic eco-theology approach is necessary for the conservation of the Kenjeran coastal environment. The results of the research related to the Kenjeran fishing community's perception of Islamic eco-theology in coastal environmental conservation efforts are shown in Figure 2. 75% of respondents perceived that the Islamic eco-theology approach is an important tool in environmental conservation. The Islamic conception of environmental management and protection must be built in accordance with 8 (eight) principles such as 1) holi stick and tawhid; 2) Khilafah; 3) trust; 4) ecological balance; 5) expediency; 6) sustainability; 7) prohibition of excessive exploitation of the environment and 8) environmental conservation is a religious obligation (Rabiah 2015). The

involvement of the Kenjeran fishing community in coastal environmental conservation activities is determined by their willingness to prevent and control pollution through the use of technology balanced with religious ethics. A total of 58.33% of respondents perceived that technology is a means to protect and manage the environment according to Islamic teachings and 77.78% of respondents perceived that technology can be used as a means to damage the environment if it is not balanced with religious ethics. Similarly, humans who do not have ethics will find it easier to damage the environment. As many as 52.78% of respondents have perceptions related to this.

DISCUSSION

1. Socio-economic Condition of Kenjeran Fishing Community

The high catch of shells has led to the accumulation of shell waste on the Kenjeran coast which has not been resolved properly. Therefore, environmental conservation efforts are needed to overcome this problem. Shell waste management efforts that have been carried out by the community are limited to simple utilization such as raw materials for handicrafts (decorative lamps, key chains, and frames) and as a substitute for soil fill.[8] Not only limited to simple things, optimal management of shell waste when viewed from the magnitude of the potential and benefits obtained by the community, can be used as a means of empowering and improving the socio-economic conditions of the Kenjeran Coastal fishing community. The utilization of Shell waste is not only as raw material for handicrafts but can also be used for agriculture, animal husbandry, food, building, and construction as well as alternative energy. An interview with the head of the Bintang Samudera fishing group explained that the amount of shell waste on the coast of Kenjeran each week ranges from 2000 to 2400 kg. The amount increases during the clam season, which occurs from June to October each year. In this research, the first step taken through mapping the assets and potential of the Kenjeran fishermen community is to find out the socio-economic conditions of the community. In addition, the socio-economic condition of the community is also the first step to finding out the attitudes and perceptions of the community in conserving the environment through the Islamic ecology approach.[9, 10]

2. The Attitude of the Kenjeran Fishing Community

Corroborated by HR. Muslims explained that cleanliness is part of faith. Islam teaches that a person's faith is not only measured by the number of rituals or prayers in a place of worship but also by maintaining and practicing cleanliness.[11]

Managing the environment is also fundamental to the perfection of one's faith. When viewed in real terms, the phenomenon of global warming is felt by the Kenjeran community, causing threats of natural disasters such as tidal floods, tornadoes, high waves, and abrasion. In addition, there are other threats such as illegal marine sandmining, fishing with bombs or trawlers, and the disposal of domestic waste into the sea, which also threaten to damage the coastal environment due to a lack of understanding of ecological ethics. Even the Qur'an QS. Ar-Rum verse 41 explains that damage has appeared on land and in the sea due to the actions of human hands, so Allah SWT feels for them some of the consequences of their actions so that they return (to the right path). Therefore, it is necessary to increase the understanding of the Kenjeran fishing community through the Islamic eco-theology approach. In this study, the attitude of the Kenjeran coastal fishing community is emphasized in its concern for the prevention and control of environmental pollution through the approach of Islamic teachings. Based on the results of the environmental mapping, it was found that some environmental pollution occurred in the Kenjeran Coastal area, among others: 1) shell waste from fishermen's catches that is dumped on the beach in large quantities (2.4 tons per

week), only about 10% to 15% of which is managed as raw material for handicrafts and soil fill material; 2) the absence of waste management in war ga settlements; 3) climate change which has an impact on the decline in fishermen's catches; and 4) seawater pollution due to urban, port, and industrial activities.[12]

3. Perception of the Kenjeran community

There are two Islamic teachings related to environmental ethics, the first is *rabbu 'alamin* which means that Allah SWT is the God who created nature and the second is *rahmatan lil alamin* which means compassion for all nature, so it can be interpreted as that good ethics will not damage nature or the environment.[11] Al-Quran QS. Al-Baqarah verse 30 explains that the main task of humans is to be caliphs who manage and protect the environment.[13] In Indonesia, environmental management and protection are regulated in Law No. 32 of 2009 which states that environmental management and protection is a systematic and integrated effort carried out to preserve environmental functions and prevent pollution and/or environmental damage which includes planning, utilization, control, maintenance, supervision and law enforcement. As many as 83.33% of respondents have the perception that the obligation and responsibility of humans are to protect and manage their environment. Various efforts have been made by the Kenjeran fishing community to protect and manage their environments such as the making of village regulations regarding the prohibition of throwing garbage on the beach and the prohibition of exploitative fishing. Humans are an integral part of the environment, as indicated by 41.67% of respondents having this perception.[14] The environment is not only a fulfillment of human life needs as stated in the theory of anthropocentrism, the anthropocentrism paradigm is instrumentalist where the pattern of relationships between humans and the environment is limited and assumes that the environment is only a tool to fulfill human needs. In contrast, biocentrism and ecocentrism theories assume that humans and the environment are interrelated, which is reinforced by a deeper ecological ethic. There are 63.89% of respondents perceive that the environment is not only a fulfillment of human needs. They assume that maintaining environmental balance will indirectly improve their welfare, for example, Petrosan fishermen only take crabs or udang that are not spawning. The existence of local regulations related to the management and protection of the coastal environment will encourage the Kenjeran community to participate in preventing and controlling the level of pollution, Marine pollution.[14, 15] This effort is based on the principle that participating in protecting and managing the coastal environment is an obligation. Safeguarding the environment is an obligation and responsibility for every human being. Everyone must participate in environmental conservation activities. The environment is not just a fulfillment of human needs. Humans are an integral part of the environment. Humans depend on the natural environment to be able to live. God commands humans to protect and manage the environment. Humans who do not have religious ethics will find it easier to damage the environment. Technology is a means to protect and manage the environment in accordance with religious teachings. Technology is a means to damage the environment if it is not balanced with religious ethics, the environmental eco-theology approach as an important tool in environmental conservation, where ecological ethics must be strengthened and emphasized in every function of life to maintain the environmental sustainability.[12]

The empowerment of the Kenjeran community is very much needed at this time, because if we look at their educational background, which on average here is elementary school, and even higher in junior high school, it is suggested that to empower the people who live on the Kenjeran coast, especially for the next generation, it is appropriate and appropriate for the school to train management to them, both self-management and financial management, and also the need for education about the limitations of natural resources, the hope is that the

fighting power of the next generation will increase and can have a tremendous impact on other generations.[16]

On various occasions, it is necessary to train skills according to the interests of each fisherman, not only skills at sea, so that idle time is not idle but there are useful activities. For traditional fishing communities on Kenjeran Beach, they should continue the traditional culture of working as fishermen so that they can teach their children as the next generation, and will continue to be equipped and equipped with a higher level of education so that the skills of handling fisheries problems at sea will be more organized through existing technological innovations, the hope is that within a certain working period, it can increase the income of the Kenjeran fishing community and the status of traditional fishermen will increase to modern fishermen, and in line with this, a policy from the Surabaya City Government is needed which contains programs that favor fishermen.[16, 17]

CONCLUSION

Efforts to understand Islamic eco-theology in the Kenjeran coastal fishing community are one of the means to conserve the coastal environment. The CBR approach is taken to encourage the active role of citizens in environmental governance, especially on the issue of marine pollution on the Kenjeran coast. This issue is important for the community to prevent and control marine pollution that hurts their socio-economic activities. The high level of community religiosity is an effort to encourage the active role of the Kenjeran fishing community with an approach to strengthening the understanding of Islamic eco-theology. The mapping of the understanding of Islamic eco-theology of the Kenjeran fishing community shows that there is a sufficient level of understanding although there are still many fishermen communities who do not understand it. In addition, the mapping also shows that there is a great opportunity to synergize environmental governance efforts based on Islamic eco-theology because most of the Kenjeran fishing community has a good perception of Islamic eco-theology for coastal environmental conservation.

Conflict of Interest

The authors declare no conflicts of interest in this work and publication of this paper.

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