

The Impact of Mangrove Forest Management on the Community in Poton Bako Hamlet, Jerowaru Village, East Lombok Regency

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Abstract

This research aims to: determine Mangrove Forest Management Patterns and the Impact on the Community in Poton Bako Hamlet, Jerowaru Village, East Lombok Regency. This research applies a qualitative approach with a case study method. The data collection techniques applied in this research are interviews, observation and documentation. The data analysis techniques in this research are data reduction, data presentation and drawing conclusions. The results of the research explain that (1) Mangrove Forest Conservation Pattern in Poton Hamlet, Jerowaru Village, namely the Mangrove Ecotourism Development Pattern (managers together with the community clean the mangrove forest from rubbish that has accumulated in the mangrove forest area to be developed into mangrove tourism), Mangrove Ecosystem Rehabilitation Pattern (manager creating a small-scale nursery area to create a stock of mangrove seeds for replanting), Mangrove Ecosystem Conservation Pattern (the management forms Pokmaswas members with the aim of acting as supervisors to prevent illegal felling of mangrove trees). (2) The impact of managing the mangrove forest for the community in Poton Bako hamlet is a positive impact (creating new jobs for the people of Poton Bako hamlet; increasing the economic income of the community by managing the mangrove forest into a tourist spot and a place to sell SME products such as mangrove coffee, mini-boats/ boats and clothes typical of Bale Mangrove tourism; catches of Poton Bako hamlet fishermen have increased and if the weather is not conducive to going to sea, fishing communities can look for shrimp, fish and crabs in the mangrove forest area; the community has received education and increased public awareness to protect the mangrove forest area. ; the coastal area of Poton Bako hamlet is protected from abrasion and prevents sea water intrusion onto land.

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1. INTRODUCTION

Mangrove forests are an ecosystem in the form of a collection of plants that survive even in brackish water and are affected by the tides of sea water. Mangrove forests are generally located on coastlines and are in places that experience accumulation of organic material and mud. This plant is able to grow and develop in tidal areas according to its tolerance as a hiding place, breeding place for various kinds of aquatic biota (fish, shrimp, mollusks, reptiles, mammals and birds).

Mangrove trees are also considered to be contributors of nutrients that are useful for the fertility of the surrounding waters. The mangrove ecosystem is the main link that

plays a role as a producer in the coastal ecosystem food network. This ecosystem has high productivity by providing abundant food for various types of marine animals. Mangrove planting also has a positive impact on restoring environmental conditions such as fauna diversity and the success rate of mangrove planting can reach 80% (Idrus, et al, 2019).

Biologically, the functions of mangrove forests include the first as a nursery ground for biota that live in the mangrove ecosystem, the second function as a feeding ground foraging areas because mangroves are primary producers capable of producing large amounts of detritus from the leaves and branches of mangrove trees. From there there is a lot of food available for the biota that search for food in the mangrove ecosystem, and the third function is as a spawning ground for certain fish to protect them from predatory fish, as well as finding an optimal environment for separating and raising their young. Apart from that, mangrove forests are also suppliers of shrimp larvae, fish and other biota. (Claridge and Burnett, 1993).

Based on Law Number 32 of 2009 concerning Environmental Protection and Management, we as humans must preserve the environment. Related to this article, the life of a country cannot be separated from development. One of the most common environmental damages is damage to mangrove forests. However, recently the environment has become a much-discussed issue. This is due to the high impact of human activities on the environment which can endanger the existence of the environment itself, especially activities in terms of development. One of the most common environmental damages is damage to mangrove forests.

Based on previous research from (Dewi Wahani, et al, 2021). Coastal areas that are used as places for mangrove conservation are areas that are ecologically very sensitive to disturbances due to environmental changes, whether caused by increased human activity so that coastal areas experience pressure and tend to reduce the environmental quality of coastal areas as well as damage to coastal areas. There are three main factors causing mangrove destruction, namely (1) pollution, (2) mangrove forest conversion that does not pay attention to environmental factors and (3) excessive logging.

Based on previous research from (Asrorul Hadi, et al, 2021). Damage to the mangrove forest ecosystem in Seriwe Hamlet, Jerowaru District is caused by various human activities such as industrial activities, cutting down trees and coastal erosion. Rehabilitation efforts need to be carried out to preserve mangrove forests. The involvement of local communities has an important role in the success of mangrove rehabilitation. The results of this observation aim to determine the level of damage to the mangrove forest ecosystem based on the density and cover of the mangrove forest and to describe the level of community participation and understanding in efforts to rehabilitate the mangrove forest ecosystem. This research was carried out in December at Seriwe Hamlet, Jerowaru District.

From the various explanations above, the researcher is interested in conducting further research in one of several villages in East Lombok, namely Jerowaru Village, Poton Bako Hamlet. This research is entitled "Mangrove Forest Conservation Patterns and the Impact on the Community in Poton Bako Hamlet, Jerowaru Village, Regency East Lombok".

2. RESEARCH METHOD

This research uses a qualitative approach with a case study method. According to Nawawi (Ridza, 2021), a qualitative approach can be interpreted as a series of processes of gathering information, from the normal conditions in the life of an object connected to solving a problem from both a theoretical and practical point of view. According to Yin (Darmawati, 2016) a case study is an empirical inquiry that investigates phenomena in a real-life context,

where the boundaries between phenomena are not clearly visible and where multiple sources of evidence are utilized.

The qualitative approach in this research is to explore data in detail and in depth. This research aims to provide an overview of the pattern of mangrove forest conservation and its impact on the community in Poton Bako Hamlet, Jerowaru Village, East Lombok Regency. This research was carried out by describing facts that occur naturally and describing in detail all the activities carried out, such as how mangrove forest management patterns have an impact on the community in Poton Bako Hamlet, Jerowaru Village, East Lombok Regency. This research uses the case study method because it provides an overview of the mangrove forest management pattern and its impact on the community in Poton Bako Hamlet, Jerowaru Village, East Lombok Regency.

In this research, data sources were obtained from research subjects and informants who were taken using purpose sampling. The research subjects in this research were people who live on the coast of Poton Bako Hamlet and people who sell in the mangrove forest tourist area in Poton Bako Hamlet, Jerowaru Village, East Lombok Regency. In determining the criteria, informants are people who know in depth about the mangrove forest area in Poton Bako Hamlet, Jerowaru Village, East Lombok Regency. In determining the criteria, informants are people who know in depth about the mangrove forest area in Poton Bako Hamlet, Jerowaru Village, East Lombok Regency.

3. RESULTS AND DISCUSSION

This research discusses two aspects, namely management patterns and the impact of mangrove forest management on the community in Poton Bako Hamlet, Jerowaru Village, East Lombok Regency.

1. Mangrove forest management patterns in Poton Bako Hamlet, Jerowaru Village, East Lombok Regency

a. Mangrove Ecotourism Development

The results of the research found that there is a pattern of mangrove ecotourism development indicated by; (1) that the mangrove forest management pattern in Poton Bako hamlet is carried out using the mangrove ecotourism development pattern. This can be seen in the results of the interview with subject 7 that the community and managers cleaned up the rubbish that had accumulated in the mangrove forest area and made facilities to support it as a tourist spot, such as making a footbridge that surrounds the mangrove forest area and then there are berugaq, photo spots and information boards such as types of mangrove trees and the age of mangrove trees in Poton Bako hamlet. Likewise, the information conveyed by informants 2 and 4, that (2) the management pattern is carried out by developing mangrove forests into ecotourism, the management together with the community carry out activities to clean the mangrove forest area from rubbish that has accumulated on the seashore which is the first step to developed into a mangrove forest ecotourism site, with the aim of the management to be able to create new jobs for the community and youth of Poton Bako hamlet so that it can improve the community's economy, reduce unemployment and reduce the social deviant activities of youth,

This pattern of mangrove ecotourism development is in line with the opinion of M. Ghufron H. Kordi K (2012:164) in his book states that the development of mangrove ecotourism is a typical and unique ecosystem, because it is located on the coast. The uniqueness of the mangrove ecosystem is one of the tourism potentials that will be economically profitable for the community and to reduce damage to the mangrove ecosystem, mangrove tourism is directed at developing coastal and

marine ecotourism or ecotourism. Ecotourism is a combination of tourism to natural areas, which protects the environment and improves the welfare of local residents.

b. Mangrove Ecosystem Rehabilitation

The research results found that there is a pattern of mangrove ecosystem rehabilitation indicated by; (1) that the mangrove forest management pattern in Poton Bako hamlet is carried out by rehabilitating the mangrove ecosystem. This can be seen in the results of the interview with subject 12

that the management and community carry out experiments in creating small-scale nursery areas to create a stock of mangrove seeds for replanting as a form of rehabilitation. Likewise, the information conveyed by the informant (2) Managers focus on sustainable development that supports mangrove forest management by replanting mangrove seedlings, maintaining plants with the aim of providing an ecosystem for land and marine animals, protecting the coast from abrasion and preventing sea water intrusion. This can be seen in the information conveyed by the informant (3). We from the department assisted in the supply of mangrove seeds which were needed by the head of the management in order to socialize the planting of mangrove trees.

This pattern of mangrove ecosystem rehabilitation is in line with the opinion of M. Ghufon H. Kordi K (2012:164) in his book that mangrove rehabilitation is the replanting of damaged/old mangrove ecosystems. The successful rehabilitation of mangrove ecosystems will have an impact on the production of providing ecosystems for land/marine animals, protecting coasts from abrasion, preventing seawater intrusion onto land, and various other functions that will have economic and ecological impacts.

c. Mangrove Ecosystem Conservation

The results of the research found that there is a pattern of mangrove ecosystem conservation indicated by; (1) that the mangrove forest management pattern in Poton Bako hamlet is carried out with a mangrove ecosystem conservation pattern. This can be seen in the results of interviews with subjects 5 and 12 that the community together with community groups carry out patrol activities in mangrove forest areas to avoid unscrupulous people who cut down mangrove trees illegally because there are still many people who cut down mangrove trees to make them into berugaq, shrimp cages and used as firewood for cooking in the kitchen. Likewise, the information conveyed by informant (2) is that we, the management, have formed a supervisory structure (Pokmaswas) with the aim of acting as supervisors in preventing illegal felling of mangrove trees.

This pattern of mangrove ecosystem conservation is in line with the opinion of M. Ghufon H. Kordi K (2012: 164) in his book that the essence of ocean conservation is: (1) Protection of the sustainability of ecological processes and life support systems; (2) Preserving the diversity of germplasm sources within and outside the area, as well as regulating the level of utilization of endangered species by providing protection status; and (3) Conservation and utilization of species and their ecosystems through: (a) controlling exploitation/utilization in accordance with conservation principles; (b) advancing research, education and tourism efforts; and (c) regulatory regulation of flora and fauna.

2. The impact of mangrove forest management on the community in Poton Bako Hamlet, Jerowaru Village, East Lombok Regency

a. Economic impact of mangrove forest management for the community in Poton Bako Hamlet.

The research results found that the economic impact of mangrove forest management for the community in Poton Bako hamlet was characterized by; (1)

Providing new job opportunities for the people of Poton Bako hamlet; (2) Increasing the community's economic income by selling MSME products such as mangrove coffee, mini-boats and typical mangrove bale tourism clothes.



Figure 1.1 Observation activities as well as eating with the Berugak learning community with the Jerowaru Village Pokdarwis and their staff

b. Ecological impacts of mangrove forest management for the community in Poton Bako Hamlet

The research results found that the ecological impact of mangrove forest management for the community in Poton Bako hamlet was characterized by; (1) Coastal areas and settlements of the Poton Bako hamlet community are protected from natural disasters such as abrasion, sea water intrusion onto land, crashing sea waves and strong winds; (2) The community has become aware of the importance of protecting mangrove forest areas because with the management of mangrove forests, fishermen's catches have increased compared to before.

c. Biological impacts of mangrove forest management for the community in Poton Bako hamlet

The research results found that the biological impact of mangrove forest management for the community in Poton Bako hamlet was characterized by; (1) There is job mobility that occurs in Poton Bako hamlet where fishing communities take advantage of work as canoe rental services, traders, tour guide services and photographers; (2) The community receives education and awareness to protect the mangrove forest area because with the management of the mangrove forest, the community's income increases and fishermen use the mangrove forest area as a place to look for fish, shrimp and crabs when the weather does not support going to sea.

The results of this research are supported by the research results of Shermina Oruh & Hasrudin Nur (2021) that the positive impact that the community obtains from preserving mangrove forests influences economic aspects, ecological aspects, biological aspects: (1) the ecological aspects in managing mangrove forests are flood control and coastal erosion, sediment stability, protection of coral reefs from the effects of floods and land, supply of organic matter and nutrients, provision of nutrients, as well as a place to live and shelter, lay eggs, foster and develop fish and shrimp larvae which have high economic value and protect settlements the community from being hit by sea waves and strong winds because the mangrove stands are dense and have a strong root system so that the mangrove forest can absorb waves; (2) Economic aspect, where mangrove wood has quite high economic value, people usually use mangrove wood for firewood and charcoal production, apart from using mangroves for medicine, young mangrove roots (roots that have not touched the ground) are efficacious in curing illnesses. stomach (diarrhea), use of mangrove wood to make miniature canoes, making mangrove coffee from mangrove fruit seeds; (3) Biological aspect, where the mangrove forest

is used as a habitat and breeding place for fish, shrimp, crabs which can be consumed by the community and bought and sold in the market. If the weather conditions are very unfavorable for fishing, then the fishing community's activities are more focused on fishing, looking for fish under mangrove stands.

4. CONCLUSION

Based on the research results, it can be concluded that:

1. The mangrove forest management pattern in Poton Bako hamlet, Jerowaru village, East Lombok district, namely: a) The mangrove ecotourism development pattern is characterized by the manager working together with the community to clean the mangrove forest area from rubbish that has accumulated on the seashore as a first step to developing it into tourism, with the aim of the management is to create new jobs for the community so that it can improve the community's economy. b) The mangrove ecosystem rehabilitation pattern is characterized by the manager creating a small-scale nursery area to create a stock of mangrove seeds for replanting. c) The mangrove ecosystem conservation pattern is characterized by the manager forming a supervisory structure (Pokmaswas) with the aim of acting as a supervisor to prevent illegal felling of mangrove trees.
2. The impact of mangrove forest management on the community in Poton Bako hamlet, including: a) The economic impact is marked by the creation of new jobs and the economy of the Poton Bako hamlet community improving; b) Ecological impacts are marked as the coastal area of Poton Bako hamlet is protected from natural disasters; c) Biological impacts are characterized by community job mobility

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