



CONSERVATION EXTENSION OF MANGROVES IN AN EFFORT TO RAISE AWARENESS AMONG THE COASTAL COMMUNITY OF CIKU NYINYI PESAWARAN REGENCY

PENYULUHAN KONSERVASI MANGROVE DALAM UPAYA MENINGKATKAN KESADARAN MASYARAKAT PESISIR CIKU NYINYI KABUPATEN PESAWARAN

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Abstract

The potential for ecotourism has been developed over an extended period and has established itself as a popular tourist destination along the Cikunyinyi coast, specifically situated in Sidodadi village, Pesawaran regency. Nonetheless, due to the rising public interest in ecotourism within the Mangrove area, there has been a decline, and improper utilization of Mangrove forests has led to increased neglect of these regions. One of the measures that can be undertaken is to educate the local community about the crucial role of Mangrove forests in supporting coastal areas. Enhancing the knowledge and comprehension of partners in conservation is crucial for maintaining the sustainability of mangrove forests by 91%. Following conservation efforts utilizing a community service approach, public awareness regarding the significance of mangrove forests has risen, thereby indirectly fostering an increased understanding of the necessity to preserve the balance of mangrove forest ecosystems.

Keywords : Counseling, Conservation, Ecotourism, Mangrove

Abstrak

Kawasan Pesisir Ciku Nyinyi tepatnya berada pada Desa Sidodadi, Kabupaten Pesawaran terdapat potensi ekowisata yang telah lama dikembangkan dan sempat menjadi tujuan wisata yang populer. Namun karena semakin lama ketertarikan masyarakat pada ekowisata kawasan Mangrove menurun, serta pemanfaatan hutan Mangrove yang keliru membuat kawasan Mangrove semakin lama terbengkalai. Upaya yang dapat dilakukan salah satunya adalah memberi pemahaman kepada masyarakat sekitar akan fungsi hutan Mangrove bagi kawasan pesisir. Peningkatan pengetahuan dan pemahaman masyarakat dalam konservasi untuk menjaga kelestarian hutan Mangrove pada kegiatan ini sebesar 91 %. Setelah dilakukan konservasi Mangrove dengan pendekatan pengabdian kepada masyarakat, pemahaman masyarakat akan pentingnya hutan Mangrove meningkat, secara tidak langsung kesadaran untuk menjaga keseimbangan ekosistem hutan Mangrove juga akan meningkat.



Kata kunci : Ekowisata, Konservasi, Mangrove, Penyuluhan

1. INTRODUCTION

Mangrove forests are a distinctive type of forest found along coastlines or river estuaries, which have adapted to the impact of strong waves, high salinity levels, and waterlogged soil. Mangroves are also known by several other names, such as mangal, wetland, coastal forest, and firewood forest. Mangroves play a crucial role in marine life, particularly in coastal areas. Ecologically, mangrove forests help to maintain the physical environment by serving as barriers against waves, winds, and saltwater intrusion, and they also provide breeding grounds for various marine species such as fish, shrimp, crabs, shellfish, snails, and other types of wildlife (Dinas Kehutanan Provinsi Lampung, 2021). Mangroves are a unique species due to their significant contribution to global carbon emissions. The global area of mangroves has experienced a substantial decline from 17.35 hectares in 1985 to 13.61 hectares in 2020. Significant losses have occurred in Saudi Arabia and Indonesia, with a global reduction of 21.6% in area and 16.5% in carbon stocks (Ju et al, 2025)

According to the National Mangrove Map 2021 prepared by the Forest Service of Lampung Province, the province of Lampung has a mangrove forest ecosystem spanning an area of 9,810 hectares by Kementerian Lingkungan Hidup dan Kebutuhan (KLHK). The potential area covers only approximately 455 hectares, which is found both within and outside the forest zone. Meanwhile, an existing area of 9,355 hectares consists of mangroves. This indicates that the mangrove forests require maintenance and preservation to continue functioning effectively. The distribution of mangrove forests in Lampung Province is located along the Eastern, Southern, and Western coastal areas, encompassing the regions of various districts Tulang Bawang, Mesuji, East of Lampung, South of Lampung, dan West coast of Lampung. (Dinas Kehutanan Provinsi Lampung, 2021).

The increase in population, changes in land use to aquaculture, and high community activities in coastal areas can lead to damage to local ecosystems, such as mangrove forest ecosystems. The community has a limited understanding of the benefits of mangroves for their livelihoods, and the lack of knowledge regarding environmentally friendly mangrove management techniques is a primary cause of the degradation of mangrove forests (Dahuri, et.al, 2001). Based on the socio-economic aspects, coastal communities have significantly utilized mangrove forests for timber extraction as well as tourism purposes. The waters of Cikunyinyi Bay are located in the district of Teluk Padan, Pesawaran Regency, Lampung. The coastal area of Cikunyinyi, specifically in the village of Sidodadi, possesses potential as a Mangrove Forest Tourism site managed by Bundes and Pokdarwis. Similar to other coastal regions, this area is affected by various human activities such as maritime transportation, waste from ships and industries, as well as uncontrolled deforestation of mangrove forests. With the increasing human activities in the vicinity of the area, the presence of industrial zones raises concerns about the potential pollution of coastal waters, which could lead to a decrease in the sustainability of mangrove ecosystems (Adriman et.al, 2020; Nugroho et.al, 2025)



Picture 1. The condition of the mangrove forest area in Sidodadi village.

In addition to pollution, the community's demand for wood is quite high, where mangrove wood is particularly effective in producing energy when converted into charcoal. This situation has led to illegal logging of mangrove trees. The true function of mangrove forests in maintaining environmental balance includes serving as protection against various influences of tidal waters and floods, as well as contributing to the preservation of flora and fauna that play a role in the reproductive activities and early growth of marine biota in coastal areas. The damage caused disrupts this balance, resulting in a reduction in the number of marine biota. In the long term, this can lead to a decrease in the catch for fishermen in the coastal area of Cikunyinyi (KLHK, 2021).

The potential created by the presence of mangrove forests includes, among others, tourism potential. The Cikunyinyi Coast opened eco-tourism in the year xxx. However, the damage that occurred has led to a decline in this potential, ultimately resulting in the closure of eco-tourism at the Cikunyinyi Coast. (Dinas Kehutanan Provinsi Lampung, 2021).

Considering this matter, the importance of heightened awareness among both coastal and non-coastal communities in maintaining the existing ecosystem balance is crucial. Based on this explanation, the author is interested in undertaking community service titled "Mangrove Conservation Outreach to Enhance Awareness among the Coastal Community of Cikunyinyi", Pesawaran Regency.

2. METHODE

The implementation of community service activities in the Cikunyinyi Coast was carried out on May 1st – 11th 2025 at Sidodadi village, Teluk Pandan subdistrict, Pesawaran Regency, Lampung. The observations were conducted on May 1st, 2025, and the outreach and conservation of the mangrove forest were carried out on May 11th, 2025.

The method implemented in this community service begins with a phase of field observation, specifically observing the Cikunyinyi coastline to assess the distribution of mangrove forests present in that area. The observation was conducted at the onset of the community service activities. This observational activity was supported by communication with several community leaders in the vicinity of the coast and the management of the ecotourism that is no longer operational.

After the observation, the next activity is the core activity, which is a counseling session on the Importance of Mangrove Forest Conservation. The role of the counselor includes conveying information or innovations and influencing the decision-making processes of the beneficiaries, in this



case, the community. Additionally, counselors are also expected to serve as a bridge between the government or community empowerment agencies they represent and the community, particularly in terms of delivering information, innovations, and policies that must be accepted and implemented by the community.

After understanding the important role of mangroves in life, the next activity is the conservation of mangrove areas that need improvement. A total of 500 mangrove seedlings have been provided to support conservation activities and to raise public awareness about the importance of maintaining and preserving mangrove forests.

3. RESULTS AND DISCUSSION

Observation

Based on field observations, it was found that several locations of mangrove forests designated as conservation areas have experienced damage. There are even locations that were once used for ecotourism, which are currently inactive due to a lack of public interest and minimal information regarding the existence of mangrove forest ecotourism. The observation activities have resulted in a decision to conduct outreach related to the conservation of mangrove forests. The observation activity resulted in a decision to conduct outreach related to mangrove forest conservation. Mr. Aan, as the Chairman of the Sinar Lestari Pokdarwis, recounted that the history of Ecotourism in the Cikunyinyi Coast began from the community's self-initiative for mangrove preservation awareness in 2020. However, when the COVID-19 pandemic struck, causing many tourist locations to experience a decline in visitor numbers due to social restrictions that limited community mobility, the management of the mangrove ecotourism diminished. This led to the surrounding community perceiving that ecotourism was no longer operational, and mangrove wood could be utilized for personal use.



Picture 2. Observation in Ciku Nyinyi Coast

The results of the observation conducted together with the village secretary of Sidodadi, Mr. Sukma Irawan, and the chairman of the Sinar Lestari Pokdarwis, Mr. Aan, provided information that the condition of the mangrove forest on the Cikunyinyi coast is currently damaged, due to aquatic activities such as shrimp farming that do not take into account the mangrove ecosystem. The damage to the mangrove forest reaches 65%, while 20% is in moderate condition and 15% is still in good condition. This damage can also correlate with the decreasing fish catch, aside from illegal fishing. The observations indicated that every 100m² of damage can reduce the catch by up to 1 ton (Department of Forestry Lampung Province, 2021).



Previously, a consultation was conducted with the local community, urging them to preserve the mangroves by refraining from cutting down mangrove plants for daily needs, in other words, that the logging is performed illegally. However, the community responded that the mangrove forest is an open access zone that can be utilized at any time. Based on the results of the interview, the team is planning further activities, namely outreach and conservation efforts regarding the mangrove forest in Ciku Nyinyi Coast, specifically in Sidodadi Village.

Extension Activities

The outreach activity was conducted in Sidodadi Village, Pesisir Cikunyinyi, Pesawaran Regency. This event was attended by 21 participants, consisting of village officials, the Chairman and Members of Pokdarwis, as well as the surrounding community of Sidodadi Village.

The number of participants and the enthusiasm displayed during this activity demonstrate the community's goodwill and their warm reception of the team. The team commenced their service activities by providing educational materials on knowledge and understanding regarding mangrove forests. The materials were presented directly followed by a discussion. The presented information covered various aspects related to mangrove conservation, including the impacts of mangrove forest exploitation; the influence of environmental pollution on surrounding ecosystems; the protective functions of mangrove forests for shorelines; the role of mangrove forests in the sustainability of flora and fauna; the role of mangrove forests as a breeding ground for marine biota; the utilization of mangrove forests; as well as techniques for rehabilitating mangrove forests.

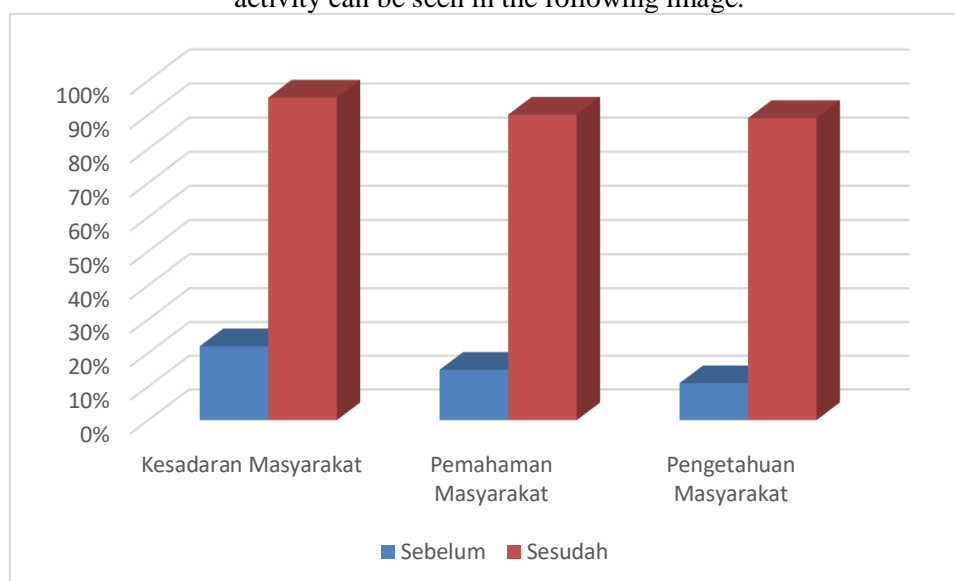


Picture 3. Coaching

Before this service activity was conducted, the service team created a questionnaire that was distributed to the participants before and after the activity took place. The results of this service



activity can be seen in the following image.



Picture 4. Results of the Questionnaire Before and After the Counseling Activity

Based on the results of the questionnaire, it shows that approximately 78% of the attendees lack awareness of the importance of mangrove forests, about 85% of the participants do not understand the functions of mangrove forests, and as many as 89% of the community have no knowledge about mangrove forests.

After this activity is carried out effectively, there has been an increase in awareness and knowledge among participants regarding the importance of mangrove forests. Approximately 95% of the attendees are aware of the role of mangrove forests in human life, while 90% of the participants are informed about the functions of mangrove forests, and 89% have acquired additional knowledge about mangrove forests. (Department of Forest Lampung Province, 2021)

Conservation

After the outreach was conducted to instill awareness and enhance the community's knowledge about the importance of preserving mangrove forests, there was also a degree of change in the behavior of the community. This is evidenced through the conservation activities carried out after the outreach. A total of 20 participants took part in planting mangrove seedlings as a form of conservation effort undertaken by the service team in the Ciku Nyinyi coastal area.

In addition, the community around the mangrove ecosystem in Pesisir Ciku Nyinyi generally has a high level of awareness regarding mangrove ecosystem conservation activities. One example that can be observed through the high levels of trust, understanding, and adherence to mangrove conservation is reflected in the support and participation of the community in the regulations agreed upon in the management of the Mangrove Conservation Area. The planting of mangrove seedlings is carried out directly in the Pesisir Ciku Nyinyi area, where damage had previously occurred.



Picture 5. Planting Mangrove Seedlings

Through this community service activity, the ecotourism management hopes that there will be benefits that can be gained and the effectiveness of ecotourism in Sidodadi Village, Pesisir Ciku Nyinyi, Pesawaran Regency will be restored. Considering that this ecotourism serves as a platform for the preservation of mangroves as well as an introduction to the area and a source of livelihood for some local residents.

4. CONCLUSION

Community service activities in partnership have resulted in an increase in public awareness and knowledge regarding the importance of preserving mangrove forests, with an average value of 91%. Through this service, it is hoped that the reopening of ecotourism in Sidodadi Village, Pesisir Ciku Nyinyi can take place, and the preservation of the Mangrove Forest in Pesisir Ciku Nyinyi remains safeguarded.

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