



The Potential of Mangrove Forests for Tanjung Rejo Communities, Deli Serdang District, Indonesia

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Abstract: This study aims to see the potential of mangrove forests for the people of Tanjung Rejo, Deli Serdang Regency, Indonesia. This qualitative study uses Miles and Huberman data analyses. The results of the study concluded that Tanjung Rejo Village has the potential to be developed to improve the quality of community welfare, namely from the agricultural sector, tourist attractions, fisheries, and accommodation sectors. The Tanjung Rejo Mangrove Forest contributes various potentials, including crane breeding, crab fishing attractions, the maintenance of immigrant bird species, Mangrove Batik Houses, and Mangrove production in the form of lunthead, syrup, chips, jam, and snacks. Tanjung Rejo's limitations in developing potential are due to the limited allocation of funds and marketing conditions in producing processed food from mangroves. The strategy that the local government has carried out in developing the potential of Mangrove Forests is to create tour packages for tourists visiting Tanjung Rejo and involve the community in the *Sapta Pesona* (seven charms) program. It is hoped that the contributions of various government and non-government parties can be carried out by participating in developing the potential of Tanjung Rejo, especially provided by the Mangrove Forest.

Keywords: Tourism Potential, Mangrove Forest, Community.

1. Introduction

Mangrove forest is one of the critical ecosystems for life in coastal areas. Pramudji (2001) states that the mangrove ecosystem is a transitional ecosystem between land and sea, which is known to have a very large role and function, such as protecting, stabilizing coastlines, the main place for nitrogen and sulfur circulation, collecting mud, forming soil, natural habitat for wildlife, nursery places for certain aquatic biota. The land is used for various human activities, such as settlements, fish ponds, agricultural land, and even as a landfill (Asriyana & Yuliana, 2012). Mangrove areas have various ecological and socio-economic functions apart from their physical functions. One of the ecological functions of mangroves is to maintain and stabilize coastlines and riverbanks and protect them from waves and currents. The biological function of mangroves includes various types of fish, birds, monitor lizards, and other primates, while the economic function of mangroves is to be a natural tourist area whose results can be developed in the form of the tourism industry as a foreign exchange earner (Hakim et al., 2017). Nature offers active and passive types of tourism and is an object of research/study or tourist tourism (Gunardi, 2010). Mangroves can also be developed into tourism that offers fun adventure and makes visitors aware of a healthy and natural environment (Sprague, 2019).

Mangrove forests in the Tanjung Rejo area, Deli Serdang Regency, play a role in the lives of the surrounding community. Based on research by Samosir & Restu (2017), the direct benefits for the people of Tanjung Rejo village are those for ponds, as well as fishing, mangrove seeds, crabs, shrimp, fish, shellfish, ecotourism, batik dyes, and firewood while the indirect benefits that the people of Tanjung Rejo village feel are the benefits of mangrove forests as a barrier to beach abrasion and seawater intrusion. Mangrove forests in the Tanjung Rejo area of Deli Serdang Regency are expected to provide direct benefits to the community and pay attention to the carrying capacity of nature for sustainability. Mangrove forest management with an environmentally friendly nature system needs to be maintained, namely paying attention to the limited capacity of land and the quality of cultivated products with higher selling power. Community empowerment is a development process where the community takes the initiative to start the process of social activities (Roni et al, 2021). According to Russell (2013), community-based tourism is a concept that pays attention to economic sustainability and the surrounding community, as well as continues to maintain cultural integrity so that it cannot change or mix with other cultures.

Community Based Tourism (CBT) places the community as the main actor by empowering the community in various tourism activities so that tourism benefits are fully allocated to local communities (Simangunsong & Soesanti, 2018). All activities carried out by communities or people in tourist villages aim to improve the economic welfare of the community by utilizing the assets and potential they have (Dalimunthe, 2021). To find out the potential, problems, and strategies for managing mangrove forests, it is necessary to carry out studies to optimize mangrove resources and the coastal environment as well as knowledge about the strategic value of the existence of mangrove forests which are beneficial to the surrounding environment such as for the community through ecotourism development activities with conservation efforts, community empowerment processes and

recreational activities carried out in an integrated manner. Policies regarding utilizing mangrove forest resources must be supported through an ecotourism approach. Latupapua (2007) argues that ecotourism is a term and concept that connects tourism with conservation because ecotourism describes environmentally friendly tourism that prioritizes tourists' responsibility towards the environment. Communities around the Tanjung Rejo mangrove forest can improve the economy and their welfare through the potential of the mangrove forest. Parawansa (2007) stated that mangrove forest management should not exclude local communities but open access to local communities to the distribution of benefits both directly and indirectly so that they can improve community welfare.

In tourism studies, mangrove forests are one of the geographies of tourism. For rural communities, developing village concepts such as mangrove tourism will have a positive impact, especially from an economic perspective. The benefit of utilizing the mangrove forests can only be realized by relying on local natural and human resources (Scheyvens & Hughes, 2019). Based on the background of the problems above, the problem identification in this study is the various potentials of mangrove forests in Tanjung Rejo, Deli Serdang Regency. Based on the formulation of the problem that has been determined, this study aims to determine the potential of mangrove forests that can be developed to improve the quality of the people community of Tanjung Rejo, Deli Serdang Regency. Community participation is very important to develop a tourist object and attraction. So far, the community has not awakened their tourism awareness, so the empowerment of the surrounding community has not run well (Dalimunthe, 2021). The focus of this research is on the subject matter, so the limitation of the problem is focused on the locus, which will only limit the discussion of the potential of mangrove forests for the people of Tanjung Rejo, Deli Serdang Regency.

2. Methodology

Employing a qualitative approach, this study is used to determine the condition of a context by directing it to a detailed and natural description of the phenomena that occur in the field (Nugrahani, 2014). Descriptive research with a qualitative approach emphasizes the details of the object under study. This study aims to see a picture of the potential of mangrove forests for the people of Tanjung Rejo, Deli Serdang Regency. The data used in this study are primary data and secondary data. Primary data collection is obtained directly through interviews and observation. Secondary research data was collected through various sources of related publication data issued by authorities such as the Central Bureau of Statistics, the local Tourism Office, journals, and books. This study used a purposive sampling method to determine informants: the Village Head, the Head of the Environmental Agency (BLH), and the Head of the Deli Serdang Culture, Youth, Sport and Tourism Office. Data analysis in this study used Miles and Huberman's analysis to determine the potential objects and tourist attractions of mangrove forests in the Tanjung Rejo area, Deli Serdang Regency.

3. Results and Discussion

Tanjung Rejo Village, which is in Percut Sei Tuan District, Deli Serdang Regency, North Sumatra Province, is one of the villages on the east coast of Sumatra. The area of Tanjung Rejo is 19 km², with a population of 10,342 people. Most of its territory consists of coastal and marine waters, which have great potential in fisheries, tourism, mangrove forest areas, and other natural resources. The mangrove forest area in Tanjung Rejo Village, Percut Sei Tuan District, Deli Serdang Regency, is approximately 602,181 ha. This Mangrove Forest is a collection of biological and non-living components that are functionally related to one another and interact to form an ecosystem. The mangrove forest preservation in Tanjung Rejo Village could be maintained by paying attention to sustainability and public awareness to protect the mangrove forest.

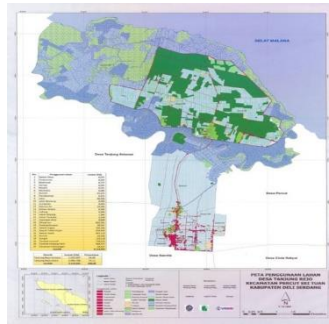


Fig 1. Map of Tanjung Rejo.

Source: The Head of Tanjung Rejo Village (2023).



Fig 2. Tanjung Rejo mangrove forest

Source : <https://desawisatatanjungrejo.deliserdangkab.go.id/profil.html>

As one of the villages with the largest area in Percut Sei Tuan District, Tanjung Rejo has various superiority that can empower village communities. Based on the interviews with the Head of the village, the potential of Tanjung Rejo, which can become the forerunner of accelerating village development, is as follows:



Fig 3. Mangrove Forest tourism attractions.
Source: The Head of Tanjung Rejo Village (2023).

Attraction

Tanjung Rejo has the potential from the agricultural sector in the form of irrigated agriculture covering an area of 704 hectares, a rainfed area of 600 hectares, and mangrove forests covering an area of more than 600 hectares. Tourist attractions are one of the consideration factors for tourist visits, which have an impact on improving people's welfare if managed optimally. Tanjung Rejo has a captive attraction of cranes numbering millions. This crane breeding is located in the Mangrove Forest location. Accessibility to this stork breeding can be by land or sea. This is in line with the views of Kurniawan, et al (2017), who state that the habit of birds visiting mangrove forests can attract interest in traveling. However, this accessibility has not been developed optimally due to limited funds. Through the Head of the village, the local government has a program discourse in 2023 to form a water tourism track that starts from the base of the water bridge to the crane breeding tourism location. This track leads to the Mangrove tourism beach. This land route also offers other attractions, namely the attraction of catching crabs directly using the tools provided by the manager and the activity of looking for clams carried out directly to nature, namely in the Mangrove Forest area.

Tanjung Rejo also offers attractions for the maintenance of immigrant bird species. Unlike the crane captivity, the view of these immigrant birds can only be enjoyed through the camera. The local government has made a land route to the location of the immigrant birds. Still, if the visitors want to take a closer look, it cannot be facilitated because the village cannot provide adequate boats due to the limited village funds. Tanjung Rejo only has two ships heading to the location of the immigrant birds, but the size of the ships is small, so it is feared to pose a significant risk to the safety of ship users. Until now, the local government is still trying to improve services by looking for stakeholders or third parties who can become ship facilitators for direct crossings to the location of immigrant birds.

Tanjung Rejo has a Batik Gallery, which is managed by the community. This attraction is in the process of making batik and cutting, carried out in Hamlet V. The Mangrove Batik House educates visitors, especially students, in learning to make batik with mangroves. This attraction was originally a community effort where the source of funds was self-help funds from the Tanjung Rejo community. The community donated land for the Batik Mangrove House, assisted by village funds for its development. The production of Batik Mangrove has been carried out for decades, and production continues because there are always orders for Batik Mangrove. Unlike batik, Tanjung Rejo produces ulos, which are only made if an order exists. Ulos is a traditional woven cloth from the Batak ethnic group. Ulos produced is Ulos Karo.

The community manages the Tanjung Rejo mangrove forest to produce commercialized culinary delights. Mangrove production is in the form of a lunkhead, syrup, chips, jam, snacks, and even Baper Chips that have been exported to Japan. The people of Tanjung Rejo process the essential ingredients of this food from the potential of the Mangrove forests.

Fishery Sector

The Tanjung Rejo fishery sector also contributes potential that can improve the welfare of the local community. This fishery sector is in the fishing locations, where 3000 to 5000 visitors come to do the fishing, especially on weekends. Tanjung Rejo produces shellfish and kepah, packaged into canned food. This canned food is a potential from the sea, which the local community utilizes. Meanwhile, from the Mangrove Forest, the community takes advantage of the potential of crabs to be used as tourist attractions.

Accommodation

Tanjung Rejo Village has 3 homestays. The local government is still developing homestays to provide services to visitors who want to stay in Tanjung Rejo Village.



Fig 4. Tanjung Rejo mangrove batik.
Source: The Head of Tanjung Rejo Village.

Limitations in potential development

Even though Tanjung Rejo has a Mangrove Forest which offers various potential that can be developed, the local government can still not fully develop these various potentials due to limited village funds. Percut Sei Tuan District has 18 Villages and 2 Villages. The 18 villages have different areas but receive the same village budget. As the largest village in Percut Sei Tuan District, this has become one of Tanjung Rejo's limitations in developing the village. Ulos Handicrafts still need to get a shop, but a gallery is open when visitors come. Ulos production is still tied to investors; until now, the local government is still trying to allocate funds for the development of Ulos. Production of food processed from mangroves is still carried out based on orders only. Marketing is a community problem in making processed food from mangroves.

Strategy for Utilizing the Potential of Mangrove Forests

Through these limitations, the community, together with the local and regional government, are trying to improve welfare where the local government actively involves the village PKK (Family Welfare Program) to support the Sapta Pesona (Seven Charm) program, namely safe, orderly, clean, cool, beautiful, friendly, and memories, and regularly holds cooperation activities. Tanjung Rejo Village is still trying to maximize the potential of the existing village. Tanjung Rejo is the only village that has deposited the Original Local Government Revenue into Percut Sei Tuan District. This has had a positive impact in the form of the election of Tanjung Rejo Village as a pilot village for an independent village and anti-corruption pilot village to represent Deli Serdang Regency. The local government also provides tour packages for tourists visiting Tanjung Rejo. The primary purpose of making Tanjung Rejo tour packages is to provide convenience for group and individual tourists when visiting Tanjung Rejo. Thus, local governments can inform tourists about various matters relating to Tanjung Rejo.



Fig 5. Tanjung Rejo Mangrove tourism village tour packages.

Source: The Head of Tanjung Rejo Village.

4. Conclusion

Tanjung Rejo Village holds significant untapped potential, which, if harnessed effectively, can greatly enhance the overall well-being of the local community. This potential encompasses several key sectors, including agriculture, tourism, fisheries, and accommodations. The jewel in this village's crown is the Tanjung Rejo Mangrove Forest, which offers diverse opportunities. These include the potential for crane breeding, the allure of crab fishing attractions, the preservation of immigrant bird species, and the unique concept of Mangrove Batik Houses. Moreover, the forest yields various mangrove-based products, such as lunkhead, syrup, chips, jam, and snacks. Despite these promising prospects, Tanjung Rejo faces certain limitations in fully developing its existing potential. Chief among these constraints are the restricted allocation of funds and challenges related to marketing processed food derived from mangroves. In response, the local government has devised a strategic approach to maximize the Mangrove Forest's potential. This strategy involves crafting enticing tour packages for tourists visiting Tanjung Rejo and actively engaging the local community through participation in the Sapta Pesona program. By doing so,

the hope is to harness the collective efforts of various government and non-government entities to unlock the latent potential residing in Tanjung Rejo, with a particular emphasis on the opportunities offered by the Mangrove Forest.

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