








The Distribution of Potential Agro-Ecotourism in the North Coastal Area, East Java

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Abstract. This study is about agro-ecotourism in the northern coastal area of East Java with the aim of 1) describing the potential of agro-ecotourism owned by tourist attraction in the northern coastal area of East Java, 2) analyzing the role of coastal communities for the development of ecotourism potential on the north coast of East Java, 3) mapping the distribution of agro-ecotourism potential levels in the northern coastal area of East Java. Qualitative descriptive method based on literature studies from journals, books, map analysis and articles related to the potential of coastal agro-ecotourism and its distribution as well as the relationship between the role of coastal communities in agro-ecotourism. The results of the study show, 1) The potential of agro-ecotourism in the northern coastal area of East Java in general can be developed as coastal agro-ecotourism. 2) The role of coastal communities in the development of coastal agro-ecotourism in the high category. DTW managed by coastal communities provides direct responsibility for developing their potential. 3) The distribution of agro-ecotourism potential levels in the western region still needs to be improved, while the central and eastern coastal areas have high potential. The highest value is on the central coast. This is because the DTW of the mangrove ecosystem in Gresik Regency and Surabaya City involves tourists to help protect the environment and participate in preserving the mangrove ecosystem as the main attraction.

Keywords: Mapping · Agroecotourism · Coastal Areas

1 Introduction

Development requires good planning to realize the demands and aspirations of the community. Growth-centered development has been driven by conventional open-system economics models, which view humans and the environment as external variables [1, 2]. In addition, the development model believes through the trickle down effect [3, 4]. That is, if there is an accumulation of capital among the upper class or the center, then that capital will trickle down. Because through such a mechanism, it is hoped that the improvement of the lives of the rural people, the majority of whom are poor, is expected to be realized. Criticisms and criticisms of the doctrine of developmentalism continue

to flow, starting from adherents of the basic needs paradigm, dependency theory to new approaches and movements that lead to empowerment. The empowerment movement began with the emergence of a people-centered development paradigm [5], which is recognized as an alternative development.

Tourism as a sub-sector of the economy is the largest and fastest growing industry in the world [6]. The main and first priority of tourism is to build people, especially local communities and those who directly interact with tourists so that equality and mutual exchange and cooperation can respect and enrich life [7, 8]. This means that tourism is not only a source of foreign exchange income, a medium for expanding and equalizing employment opportunities, encouraging regional development, the most important thing is increasing the welfare and prosperity of the people, a media for enriching national culture in order to maintain the nation's personality and preserving the function and quality of the environment. Armed with this determination, the government began to pay serious attention to the tourism sector and continued to promote tourism in various regions according to the character of each region. The northern coastal area of East Java is a densely populated area as one of the tourist destinations in Indonesia which has a lot of tourism potential that can be developed and improved. Nevertheless, the gap in tourism development in the northern coastal areas of East Java still persists, namely between the western, central and eastern parts.

Tourism development must be in the form of a comprehensive planned development, so that it can be utilized by the community, both in terms of economy, social and culture, avoiding the emergence of negative economic, social and cultural problems. Tourism planning must integrate tourism development into an economic, physical, social development program, all of which must be able to provide a government policy framework to motivate and control tourism development.

Agro-ecotourism can be an introduction to sustainable tourism because in agro-ecotourism there is a principle of learning about nature where the community also gets the benefits. With agro-ecotourism, it is hoped that it can ensure the survival of tourism without sacrificing the environment. From the principle of learning about nature and its benefits to society, the northern coastal area of East Java has great potential in the development of agro-ecotourism because the northern coastal area of East Java has a number of natural resources and socio-cultural potential in the form of community customs [9] which is able to support tourism development, if all these natural resources are managed properly it will be able to support agro-ecotourism, but if not it will destroy not only the tourism sector but the northern coastal area of East Java as a whole.

This is interesting to study because the agro-ecotourism area is not only a source of community income but also functions for biodiversity conservation and cultural preservation of local communities. The study of mapping the potential of agro-ecotourism in the northern coastal area of East Java with the aim of describing the agro-ecotourism potential of the DTW in the northern coastal area of East Java, analyzing the role of coastal communities for the development of agro-ecotourism potential in the northern coastal area of East Java, and mapping the distribution of the level of agro-ecotourism potential in the coastal area. The north coast of East Java really needs to be known so that it can be used optimally according to needs.

2 Research Method

This study was conducted with the object of the northern coastal area of East Java. Sampling of the study of tourism objects is carried out by purposive area sampling, because tourism objects located in the northern coastal area of East Java are spread from the eastern to western coastal areas. The division of 3 zones in the northern coastal area of East Java is used as the basis for sampling tourism objects, namely samples of tourism objects located in the east coast (Banyuwangi and Situbondo), middle (Surabaya and Gresik), and west (Tuban and Lamongan). The study of community participation was carried out purposively on some literature on tourism objects that could meet the requirements or represent for the purposes of the study, as well as represent the completeness of the elements to be observed and assessed related to tourism activities in the northern coastal area of East Java. The data collected is by means of a literature review. Presentation of data descriptively with qualitative analysis.

3 Result and Discussion

The agro-ecotourism potential that will be described is a tourist attraction located in the northern coastal area of East Java which has become the research sample. Attractions Situbondo *Pasir Putih* Beach and Banyuwangi Watudodol Beach (eastern part), Wonorejo Mangrove and Banyuurip Ujungpangkah Mangrove Tourism Objects (middle part), and Tuban Mangrove Center attractions and Kutang Lamongan Beach (western part) coastal areas north of East Java. The potential of agro-ecotourism is a combination of several aspects of agro-ecotourism consisting of community participation, tourism potential, and contribution to local communities. In the following, each object will be described to obtain a more comprehensive picture as the basis for the development of agro-ecotourism.

Tourism potential is the first aspect in agro-ecotourism, related to tourist attractions in the Tuban Mangrove Center, namely the mangrove ecosystem as the main attraction and sea views as a supporting attraction [10, 11]. While in Kutang beach tourism, the main attraction is the view of the sea and mangroves as a supporting attraction [12, 13]. Accessibility related to whether or not a location is easily reached, accessibility to the Tuban Mangrove Center tourist attraction is classified as good, this is evidenced by good road conditions and is the main route to the district city and is the main road connecting the provinces of East Java and Central Java, this tour is classified as not far from the district city and easy to access vehicles for transportation to tourist sites. While the accessibility to Kutang beach is classified as moderate because there is no public transportation to this location, to this location can be passed by private vehicle [13]. Tuban Mangrove Center tourism facilities and Kutang Beach are classified as moderate, this is evidenced by the lack of complete accommodation facilities and souvenir shops. There are also no health and information facilities, but there are restaurants/drinks and security posts. Environmental conservation has been carried out by both janitors and coastal communities and managers who have rules in maintaining the cleanliness of the environment around the Tuban Mangrove Center tourist area [14].

Community participation is the second aspect of agro-ecotourism. Community participation in question is related to the involvement of local communities in tourism

activities. The local community in question is the community around the tourist area. Public participation in the Tuban Mangrove Center and Kutang Beach attractions in general is in the moderate category, in the field of planning, monitoring, and as a tourism business actor, it is still lacking, it's just that they are more involved in the management field such as being employees and parking and cleaning officers [15, 16].

The contribution of tourism activities to the local community of the Tuban Mangrove Center and Kutang Beach is only limited to increasing income and opportunities to work in tourist attractions. However, job opportunities related to accommodation services do not yet exist because hotels and restaurants that are supposed to absorb labor do not yet exist, at the Tuban Mangrove Center there is only lodging in tourist sites and at Kutang Beach there are no hotel and lodging accommodations. Thus, the agro-ecotourism potential in the Tuban Mangrove Center and Kutang Beach Tourism Objects from the three agro-ecotourism aspects that have been described shows a moderate category. This is because community participation is still not optimal and tourism facilities are not yet complete. Meanwhile, related to tourism potential, namely the main and supporting attractions, it is an attractive tourist attraction package.

In the middle zone of the northern coastal area of East Java, tourism potential related to tourist attractions in Banyuurip Mangrove tourism and Wonorejo Mangrove tourism is the mangrove ecosystem as the main attraction and sea views as a supporting attraction [17, 18]. Accessibility to the Wonorejo Mangrove tourist attraction is classified as good, this is evidenced by good road conditions and being close to the city of Surabaya, which is one of the big cities in Indonesia, making it easy to access vehicles for transportation to tourist sites. While the accessibility to Mangrove Banyuurip tourism is classified as moderate because there is no public transportation to this location, to this location can be passed by private vehicle [19]. Wonorejo Mangrove tourism facilities are quite complete because of the location close to big cities and the Banyuurip Mangrove is classified as moderate, this is evidenced by the lack of complete accommodation facilities and souvenir shops.

At the Wonorejo Mangrove and Banyuurip Mangrove tourism objects, the contribution of tourism activities to local communities is not only limited to increasing income and employment opportunities at tourist attractions. However, there are job opportunities related to accommodation services because hotels and restaurants can absorb labor around the Banyuurip Mangrove tourism object and Wonorejo Mangrove tourism object. Thus, the potential for agro-ecotourism in the Wonorejo and Banyuurip Mangrove Tourism Objects from the three agro-ecotourism aspects that have been described shows a good category. This is because the community participation is quite good and complete with tourism facilities and related to tourism potential, namely the main and supporting attractions, which are already an attractive tourist attraction package.

In the eastern zone of the northern coastal area of East Java, tourism potential is related to tourist attractions in Situbondo *Pasir Putih* Beach tourism [20, 21] and Watu Dodol Beach tourism which is one of the leading tours of Banyuwangi Regency [22] is the view of the beach as the main attraction with several tourist attractions, including: There are interesting games such as banana boats, boats and ATV (All Terrain Vehicle/Four-Wheel Motorcycle). Watu Dodol is also used as the location of a traditional ceremony called *Puter Kayun*. Watu Dodol Beach has tourist attractions that can be enjoyed, namely

beach views and beautiful underwater views, along the coast there are pedestrians to relax for visitors while enjoying the beauty of the beach with the background of the island of Bali. Accessibility to the *Pasir Putih* Beach tourist attraction Situbondo and Watu Dodol Beach is classified as good, this is evidenced by good road conditions and one destination route to Bali Island from Java Island, making it easy to access vehicles for transportation to tourist sites. Various supporting facilities include parking areas, toilets, food courts, and prayer rooms. The area has interesting games such as children's games, water rides, and ATV [22].

The existence of the Situbondo *Pasir Putih* Beach and Watu Dodol Beach attractions have created jobs for local residents. With this work, the community gets additional income which is used to meet their daily needs, so that the conditions of a prosperous family are fulfilled [20, 23, 24], this is the contribution of tourism activities to local communities. The types of informal sector businesses that are occupied by members of the fishermen's family in the *Pasir Putih* Beach area include the type of shell craft business, the business of making fishing nets/nets, fish processing business and fish drying business. 25% of which the results become supporters of surrounding tourism and contribute to increasing the income of fishermen's families around tourism [25].

3.1 The Role of Coastal Communities in the Development of Coastal Area Agro-Ecotourism

Indonesia is the largest archipelagic country in the world which is surrounded by a vast sea. As a result, we can find many coastal areas (called ecoton areas) in this country. Ecoton areas have specific characteristics that are dynamic and vulnerable, therefore their development needs to be well planned [26]. The development of coastal areas through tourism with proper and appropriate planning, will bring tourism in the northern coastal areas of East Java to be sustainable. Various efforts have been made by the manager, as well as several other stakeholders, to become a solution for agro-ecotourism development. This solution is in the face of several conditions, including the post-Covid-19 pandemic [27].

Some of the coastal areas are water resources that are related to the livelihoods of coastal communities. Co-management is one approach to managing aquatic resources that gives a big role for the community to participate which should be facilitated by the government and other interested parties in the utilization and management of their resources [27]. Because the management of coastal areas needs to be done in an integrated manner between several interested parties in it.

There are three things that become the role of coastal communities, namely the role in the field of tourist attractions, in the physical and socio-economic fields. The role of tourist attractions, both the main and supporting attractions, continues to be maintained and repaired. In the physical field, an improvement program is carried out based on studies and conditions in the object and the development of tourist visits. The program to repair the tourist attraction Mangrove Center Tuban and Kutang Beach will be carried out by structuring and adding mangrove plantings as well as completing the supporting facilities that have been minimal so far. Coastal communities and their institutions have not been able to complete tourist accommodation facilities because investors are still rare currently through BUMDes (Village Owned Enterprises) [13, 28] and Foundations

[29]. However, regarding the role in the social and economic fields, coastal communities and their institutions have set rules in tourism activities such as recruitment of workers who prioritize local communities and there are rules to avoid violations that damage the environment.

In tourism activities at Watu Dodol Beach and *Pasir Putih* Beach Situbondo there is a reciprocal relationship between tourism activities and the community. In the development of coastal tourism in the Watu Dodol Beach and *Pasir Putih* Beach areas of Situbondo, the community is actively involved in its development as tourism business actors (souvenirs, food and beverage traders) as well as in maintaining cleanliness [23, 25]. The role of coastal communities in tourism development at Watu Dodol Beach and Pasir Putih Beach Situbondo includes, the role of tourist attractions such as actively participating in a traditional ceremony event called *Puter Kayun*, physical facilities such as infrastructure and being involved in banana boat rentals, ATVs (All Terrain Vehicle/Four Wheel Motors) and boats.

The community in developing the potential of tourist attractions in the Banyuurip Mangrove and the Wonorejo Mangrove is very participatory. This can be seen from planning, monitoring, management, to economic actors involving the community, besides that the cleanliness of the tourist attraction also involves the community in the form of community service for cleaning [18, 19]. In terms of planning, the community is involved in meetings, decision making, problem identification, and tourism promotion. For example, in terms of tourism promotion, the community is involved in distributing brochures. In terms of monitoring, the community is involved in supervising the ongoing processes of tourism activities in the area. In terms of management, the community is included as security officers who are members of the tourism awareness group (*Pokdarwis*) [30–32] and the community monitoring group (*Pokwasmas*) [33]. In addition, in terms of community management, they are also involved as tour guides, cleaners and employees. In their economic business, the community participates in opening souvenir businesses, restaurants, boat rentals, and others.

Communities in the Banyuurip Mangrove and Wonorejo Mangrove in an effort to manage tourist attractions have a big role, in general coastal communities depend on their household income through the fishery sector as fishermen and fish cultivators and tourism, along with some training and assistance in the field of fisheries and tourism in Indonesia. Gresik Regency is a driving force in improving the quality of its human resources.

4 Conclusion

Based on the results and discussion of the study objectives, the following conclusions can be drawn: (1) The potential of agro-ecotourism in the northern coastal areas of East Java can generally be developed as agro-ecotourism. Although there are tourist attractions that need to improve the three aspects of agro-ecotourism which consist of tourism potential, community participation, and contribution to local communities so that they are in accordance with the requirements of agro-ecotourism; (2) The role of coastal communities in the development of coastal agro-ecotourism in the northern coastal areas of East Java is good in the category of having a high role. Tourist attraction

which is managed by coastal community institutions provides direct responsibility for developing its potential to increase tourist visits.

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