



Managing the Coastal Area of Kretek Subdistrict, Bantul Regency Based on Sustainable Development

Nurul Khotimah¹, Hastuti Hastuti¹, Diana Prasastiawati¹

¹ Geography Education Department, Faculty of Social Sciences, Law, and Political Science, Universitas Negeri Yogyakarta, Yogyakarta, Indonesia
nurulkhotimah@uny.ac.id

Abstract. The coastal area of Kretek Subdistrict, Bantul Regency has the potential to experience ecosystem damage. Therefore, it is necessary to manage coastal areas based on sustainable development considering the role of coastal areas as potential areas to be developed by utilizing and utilizing according to their needs and designation. This research was conducted with the aim to: (1) identify the coastal potential of Kretek Sub-district; (2) develop coastal management efforts of Kretek Sub-district based on sustainable development. This research method used a descriptive approach. The research subject is the coastal area of Kretek Sub-district which includes Parangtritis Beach, Parangkusumo Beach, Depok Beach, Parangtritis Geomaritime Science Park, and Baros Mangrove. The entire coastal area of Kretek Subdistrict was used as research subject to see data on the potential of natural resources adapted to physical and non-physical conditions. The study's findings show that Kretek Sub-district has a strong tourism potential, as evidenced by the adoption of CHSE during the pandemic, a variety of diversified tourism activities, and directed management. However, there are still strategic challenges to address, such as the high number of unlawful fees during the holiday season, and difficult-to-eliminate slavery places.

Keywords: coastal potential, area management, sustainable development

1 INTRODUCTION

Indonesia with its wide coastline of roughly 81,000 kilometers, provides enormous potential for coastal area management (Rahmat Datau & Hairan Hairan, 2019; Andiyan & Rachmat, 2020). However, current management practices are suboptimal, with only about 55% of available resources being utilized (Trinanda, 2017). The coastal regions offer diverse resources, including fisheries, mangroves, coral reefs, minerals, and tourism opportunities (Andiyan & Rachmat, 2020). Effective management requires an integrated approach across sectors, balancing development with environmental conservation (Trinanda, 2017; Sugandi, 2016). Local communities, particularly traditional fishermen, should be actively involved in the management process, not marginalized (Trinanda, 2017; Andiyan & Rachmat, 2020).

Sustainable management of coastal areas is an urgency in Indonesia, a country with the second-longest coastline in the world (Trinanda, 2017). Coastal areas have

significant economic potential, but face challenges such as environmental degradation and marginalization of local communities (Efendy, 2009; Trinanda, 2017). Integrated coastal zone management is needed to address the complexities and conflicts in coastal areas (Djunaedi, 2011). This approach involves comprehensive assessment, planning and management of coastal resources (Efendy, 2009). Sustainable coastal management in Indonesia integrates environmental protection, economic development, and cultural preservation.

In Bantul Regency involving local communities in decision-making processes are crucial for maintaining environmental and cultural sustainability (Nugroho et al., 2023). Bantul Regency located in southern Java, has a long and diverse coastline with tremendous potential for natural resources, agriculture, fisheries, and tourism (Nugroho et al., 2023). Bantul is unique in that it is part of the Special Province of Yogyakarta with complicates spatial planning. This distinctiveness includes deeply ingrained cultural, historical, and customary elements that have become an intrinsic part of local life. Bantul's coastal area is about 12 miles from the shoreline, with part of the marine area falling under provincial jurisdiction and part under the responsibility of the provincial government. Part of the sea area is under provincial jurisdiction, and part is the responsibility of the district/city.

According to the 2016 Master Plan and Detail Plan of the National Tourism Strategic Area (KSPN) South Coast (Pansela) DIY and Surroundings, developing and managing sustainable and integrated tourist destinations is required to transform KSPN Pansela and its surroundings into a world-class and sustainable destination by 2025. Furthermore, the fish culinary center and the direction of development among sail trading farmers toward the creation of a maritime country are well known along the south coast. The southern coast of Yogyakarta (DIY) offers significant tourism potential such as the presence of the area's sand dune ecosystem provides economic and non-economic benefits (Astuti et al., 2020). Tourism activities along the southern coast have led to changes in local activities and interaction patterns, prompting the need for zoning and staged development of tourist areas (Aditha Agung Prakoso, 2018).

Bantul Regency is a popular tourist destination in the southern latitudes, known for its marine and religious tourism. According to Bantul Regency Regional Regulation Number 18 of 2015, which governs the Regional Tourism Development Master Plan 2015-2025, the region contains 5 (five) Regional Tourism Destinations (DPD), one of them is DPD Segoro Kidul. DPD Segoro Kidul area comprises of three sub-districts: 1) The Kretek Sub-district includes Parangtritis Beach, Parangkusumo Beach, Depok Beach, Barchan Sand Dune Geohéritage, and Baros Beach Mangrove Area and its environs. 2) The Sanden Sub-district includes Samas Beach, Pandasari Beach, and Goa Cemara Beach and its surrounds. 3) The Srandakan Sub-district includes Pandansimo Beach, Baru Beach, Kulwaru Beach, and Lopati Tourism Village and its environs.

The Bantul Regency's DPD establishment make sure all sub-districts have a strong potential for the development of tourist attractions. This study selected the location of Kretek Subdistrict, which has four mainstay regions, as the entryway to tourist attractions. This study is projected to result in an integrated and sustainable coastal area management plan that supports the regional economy. As an outcome, this research may contribute to encouraging coastal conservation actions in line with the 14th Sustainable Development Goal, the marine ecosystem.

2 METHOD

The study was performed from April to June. The research was conducted in Kretek coastal area, including Parangtritis Beach, Parangkusumo Beach, Parangtritis Geomaritime Science Park, and Mangrove Baros. This study uses analytical and descriptive method. This study's data collection approaches included (1) observation, (2) interviews, and (3) documentation. Observations and measurements were conducted in the field to determine the real facts or conditions in the research region. Observations were conducted using research devices designed to collect data on spatial physical properties. This study's interviews were conducted in an unstructured way with people along the coast to acquire data on socioeconomic characteristics and types of coastal area management, while documentation was done through literature studies and studies to relevant agencies. Conduct a literature review by searching books, journals, magazines, previous research, and the internet. Studies for connected agencies, such as Bappeda, Bapedalda, BPS, BPN, Fisheries and Marine Office, Sub-district Office, and the Village Office to collect information on population, socioeconomic culture, thematic maps, and related research findings. The data analysis technique required to discover the potential of coastal ecosystems based on geographical characteristics is to spatially assess their physical, non-physical potential, and challenges.

3 RESULTS AND DISCUSSION

Kretek sub-district has 4 tourist destinations which include Parangtritis Beach, Parangkusumo Beach, Parangtritis Geomaritime Science Park, and Mangrove Baros. Parangtritis Beach is one of the coastal locations that have been built and managed for tourism purposes. The Bantul Regency Government has done an excellent job managing this tourist destination, which includes hotel facilities and stores selling local Parangtritis products. ATVs, horse-drawn carriages, and horses can all be leased at the Parangtritis Beach region to allow you to walk along the beach from east to west. Furthermore, the Parangtritis Beach area is ideal for air sports and modeling. The principal program for organizing this region is the arrangement of trade stalls behind and outside the coastal limit. Shelter places are needed to keep the beach area free of street merchants and illegal parking. This supports the modern tourism model that must evolve with the times, notably by providing suitable amenities as an international tourist destination. Based on the existing characteristics, there is a need for improvement in numerous areas of integrated and sustainable tourist management, with a particular emphasis on ecosystem sustainability in the beach region, one of which is the preservation of beach sand dunes.

Parangkusumo Beach is a religious tourism destination and an inseparable part of Parangtritis Beach, however there is a need to manage the houses used for illegal prostitution in the beach area. The current development of access to the beach has opened, allowing people to see the beach and walk to the shoreline. Cepuri Parangkusumo's presence as a spiritual icon in this location is significant as a religious tourism attraction. The notion of structure has begun to emerge in the Parangkusumo Beach area, with an emphasis on the preservation of cultural sites that represent the area's tourism attraction. The Depok Beach area is sought as a supporting object to the main pursue, Parangtritis Beach, so that tourists do not focus solely on Parangtritis

Beach. This location is part of the travel package Parangtritis - Parangkusumo - Depok - Geospatial Laboratory. Among other beaches in Bantul Regency, Depok Beach is designed to be the center of culinary tourism to enjoy seafood. On this beach, there are several traditional food stalls selling seafood that line up not too far from the shoreline. Some of the food stalls are even designed to face south, so that tourists can see the view of the open sea with big waves while enjoying seafood. The community around Depok Beach has been directly involved in the development and management of this beach area by forming a fishing community group with boat facilities and infrastructure, a fish auction site, and a fishermen's organization.

The mangrove area along the Opak River estuary is located in 2 (two) hamlets, namely Baros Hamlet, Tirtohargo Sub-district, Kapanewon Kretek and Tegalsari/Rejo Hamlet, Srigading Sub-district, Kapanewon Sanden, Bantul Regency. Kalurahan Tirtohargo is located approximately 4 km southwest of Kretek Sub-district with an area of 3.62 km² (13.52% of the total area in Kapanewon Kretek). Tirtohargo sub-district is geographically located at the coordinates 110°28'50" East and 7°99'50" South. Baros Hamlet is located at the southwest end. Administratively the mangrove area along the mouth of the Opak River in Baros Hamlet. The mangrove area along the mouth of the Opak River is a conscious effort of the local community to save the southern coastal area affected by coastal abrasion. In addition, the development of mangrove conservation areas is carried out to save agricultural land around the coast which is difficult to grow because water containing high salt content often seeps into agricultural land. Baros mangrove area is located in the Opak River delta covers around 25 ha of Sultan Ground property. Until now, mangroves have grown nicely, forming a grove of 6-7 acres. The mangroves planted include *Avicennia* sp., *Rhizophora* sp., *Brugueira* sp., and *Nypa* sp. Meanwhile, the mangrove area at Pengklik Lagoon (Tegalsari hamlet/rejo) is only in its early stages. However, there are native mangrove species near the mainland, specifically *Sonneratia* sp., however the population is now quite small.

Coastal area management frequently divides into two categories: sectoral management and integrated management. Sectoral management of coastal areas focuses on a single type of resource or ecosystem to achieve specific objectives (sectoral), such as fisheries, tourism, mining, industry, settlements, transportation, and so on. In sectoral management, "cross-sectoral" or "cross-regional" implications are frequently disregarded. As a result, the sectoral management model has a variety of effects that can harm the environment and disrupt other sectors (Aswan Sakumoto Rua, 2011). Dahuri et al. (1996), Cicin-Sain and Knecht (1998), and Kay and Alder (1999) all stated that sectoral management or exploitation of coastal regions is ineffective. Bantul Regency's coastline region must be managed without regard to sector.

Integrated coastal management refers to the management of natural resources and services in the coastal and marine environments through comprehensive assessment, planning goals and objectives, and then planning and managing all utilization activities to achieve optimal and sustainable development. The management is carried out continually and dynamically, taking into account socioeconomic-cultural characteristics, ambitions of coastal user communities (stakeholders), and potential conflicts of interest and exploitation. Coastal area management can be integrated in four different ways: (1) regional/ecological integration, (2) sector integration, (3) discipline integration, and (4) stakeholder integration (Aswan Sakumoto Rua, 2011). These four factors can be used to assess the existence of the coastal region in Bantul Regency,

which has been controlled and developed by the local government, relevant agencies, and coastal people.

With complicated spatial characteristics such as mountains, sand dunes, river estuaries, coastal locations, and culinary hubs, the development model of a single package trip must be studied. The development model with a single travel package should be examined. The current arrangement model appears chaotic because all parties are unaware of how to maximize the existing tourism potential. For example, the parking lot supplied by the Bantul Regency government is still empty; most vehicles are parked on the roadside, which is not designated for parking. The community must be educated on the concept of sustainable tourism, which includes: (1) economic benefits to the local community, (2) environmental protection, (3) social responsibility, and (4) non-contradiction with local culture. The concept of sustainable tourism is expected to change the community's perception of tourism development through the optimization of existing infrastructure, so a management model capable of resolving these issues in accordance with the characteristics of the existing area, namely Sustainable Nature Tourism and Sustainable Community Tourism.

Sustainable Nature Tourism emphasizes on the environment/nature, which is the driving force for the growth of the Parangtritis Beach Area. Because what is advertised is the beauty of the beach, if the nature or environment is harmed, tourists would not visit the Parangtritis Beach area. The government should enact regulations that benefit nature, such as guidelines governing how to develop hotels/villas, including coastal limits and trash issues, so that existing things are not abraded or filled with plastic waste. Industry/investors must also follow the rules established by the government. Furthermore, it must constantly consult the community while making decisions about the management of the Parangtritis Beach so that all parties take advantage of the sustainability of the area. Most international tourists are environmentally conscious, therefore the abundance of litter, particularly plastic waste, makes them uncomfortable and causes them to abandon the Parangtritis Beach and its surrounds.

4 CONCLUSION

Based on the results of the analysis and discussion, the conclusion that can be drawn from this research is that despite the beauty of the natural landscape in Kretek District, DPD Segoro Kidul, there are still many obstacles and shortcomings that must be addressed, such as the lack of waste management around the beach, considering that the South Coast Area is often a tourist destination location, there is no UMKM training and Training of Trainer (ToT) program. The IFAS and EFAS matrix can also be used to examine development possibilities in the future, allowing for higher-level development. Furthermore, to the use of public transit means, several DPD Segoro Kidul sites are inaccessible by tourism buses due to small roads. The amenity component is vital in meeting the needs of tourists, but there are still many challenges, such as badly kept restrooms, dispersed rubbish, the layout of fish auctions, disorganized structures, and a shortage of clean water. Strategic challenges in the field that signal that they will become a barrier to the sustainability of tourism destinations remain obvious and have the potential to harm the destination's image, such as ticket leaks, abrasion, CHSE violations during the pandemic, and prostitution.

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