

Environmental Sustainability Based on Natural Heritage Conservation and Resource Management in Tourist Objects in the Ampiang Parak Conservation Area

Firdaus^{1*}, Harfiandri Damanhuri¹, Aprizon Putra², Suparno¹, Arlius¹

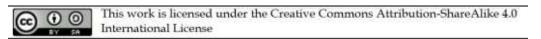
¹Master Program of Water Resources, Coastal and Marine, University of Bung Hatta, Indonesia ²Research Center for Conservation of Marine and Inland Water Resources, National Research and Innovation Agency (BRIN),Indonesia *E-mail: firdaus.pessel@gmail.com

Received: 01 Feb. 2024, Revised: 12 May. 2024, Accepted: 30 May. 2024

ABSTRACT

This research aims to analyze aspects of environmental sustainability based on natural heritage conservation and resource management at the coastal tourist attraction of Nagari Ampiang Parak, Pesisir Selatan Regency. Researchers carried out research through qualitative methods using purposive sampling techniques. Techniques for collecting data were carried out through observation, interviews, and documentation. The process of testing data validity uses source triangulation analysis, namely data reduction, data presentation process, and conclusion. The turtle beach destination is said to be environmentally sustainable regarding natural heritage conservation and resource management. The results of the research show that management of natural heritage conservation is not yet optimal, information media such as sites do not yet exist, resource management is not yet optimal because the destination does not yet have renewable energy, does not yet have guidelines for monitoring the reduction in water use and does not yet have data and reports on water quality.

KeyWords: Sustainability, Natural Heritage, Conservation, Resource Management, Ampiang Parak.



INTRODUCTION

Tourism is one of the influential sectors and must be paid attention to by all countries in the world, both in developed and developing countries. Indonesia has a variety of tourism, which can be seen from the many types of tourism that are spread in all corners of the archipelago, starting from nature-based tourism, sports tourism, cultural tourism, special interest tourism, seaside tourism, and many other tours. According to Telfer & Sharpley (2015), Indonesia is the country with the highest tourism growth in the world. The growth and development of tourism will create special information in its main area, namely the development of tourism in the current era and considering its long-term sustainability for future successors.

In the regulation of the Minister of Tourism and Creative Economy/Head of the Tourism and Creative Economy Agency of the Republic of Indonesia No. 09/2021 concerning "Guidelines for Sustainable Tourism Destinations", it is stated sustainable tourism is tourism that takes into account the economic, social and environmental impacts in the present era and the future, fulfilling the needs of visitors, industry, the environment, and surrounding communities need and can be used in all forms of tourism activities in all

types of tourist destinations, especially crowd tourism and various other types of tourism activities (Mubarak et al., 2023).

Sustainable tourism raises responses from those who plan tourism and advocate for the environment, both of which have an influence. To realize sustainable tourism, a responsible attitude is needed by not destroying nature and culture, and also respecting the customs that apply in tourist areas. According to Damanhuri et al (2012); Mubarak (2022), principles of development sustainable must consider not only looking at the interests of the near future in the current era but also considering future successors about the fate of future generations due to environmental damage.

The criteria for sustainable tourism are reviewed as a whole and are divided into four, namely starting from sustainable management processes, social and economic sustainability, cultural sustainability, and environmental sustainability. Rosana (2018) Sustainable tourism focuses on environmental sustainability and must pay attention to aspects of natural heritage conservation and management of resources in creating sustainable sustainable tourism. Putra et al (2023) add nature conservation is the protection of deep ecosystems to preserve ecosystems for the continuation of life on earth, nature conservation requires a multidisciplinary approach whose success will involve various parties, because basically what is needed for conservation is what everyone needs.

Resources are the tools or conditions that humans can use to fulfill what their life needs to contain all the good things that have material or non-material, which are used in achieving results, problems of equipment, supplies, time and labor, Rivai & Sagala (2008) environmental aspect very deeply influences the process of implementing sustainable tourism development, where everything cannot be isolated due to the nature of its sustainability. Tourism development has the aim of being able to support improvements in the quality of life of the people and being able to achieve the main needs of society in a better direction. As an effort to carry out improvements in the quality of life of the community, the ability of the environment to provide support for life at a higher level must continue to be maintained and guarded against damage from the hands of irresponsible people.

Environmental maintenance aims to achieve environmental sustainability without the extinction of life. Damage in the environment will cause a large decline in the ecosystem where humans live, so in the future human life will become difficult. Therefore, it can be stated that sustainable development is not taking place. Destinations have challenges in efforts to realize environmental sustainability. According to Mellu et al (2018), in carrying out activities in the process of developing a tourism attraction, one cannot be isolated from circumstances or parties that could become obstacles to the continuity of the tourism development process in a region or country. Factors that cause obstacles are conditions or things that can cause obstacles and cause the failure of an activity, whether production or business. Furthermore, according to Mellu et al (2018), the process of developing tourist attractions cannot be isolated from the following things:

The lack of peope participation and awareness in the development of the tourism sector,
the lack of priority in developing something given by the government to the tourism

sector, namely 1) Low number and expertise of human resources in the department concerned; 2) Minimal formation of working relationships with investors; 3) There are not yet available ideas and systems for promotion that have appeal to efforts to increase the tourism sector; 4) Limited facilities and infrastructure for working in the relevant department and tourist attractions; and 5) Limited maintenance of supporting facilities at tourist attractions. According to Mellu et al (2018), supporting factors are conditions that can provide encouragement or can grow an activity, whether production or business. According to Spenceley & Meyer (2012), there are several indicators in assessing the environmental aspects of sustainable tourism, namely: 1) Landscape, which concerns all natural environmental factors that still exist at the location; 2) Air Quality: Tourist destinations should have good air quality and not hurt tourists (not cause pollution); and 3) Water Quality: Tourist destinations are required to have good water flow and supply which makes it usable for residents in the area and for tourists.

Indicators from the environmental aspect have also been researched by Mihalic (2020) where she concluded that indicators from the environmental aspect of sustainable tourism include: 1) Air quality: The quality of the air at that location is one of the indicators that influences the level of comfort of visitors; 2) Water quality, good and sufficient water quality can provide benefits for local needs and for tourists (for example for bathing, drinking, etc.); 3) Noise level, the percentage of noise in a location can be influenced by the large number of vehicles or perhaps a large number of activities; and 4) Cleanliness of the area, cleanliness of the area is one of the factors that play a role which, apart from being a complement to tourism value, also assists in maintaining the location for the future.

The Pesisir Selatan Regency has many beach attractions. Beach tourism in the Pesisir Selatan Regency is the Turtle Beach tourist destination which is located in Ampiang Parak, Sutera Sub-district, Pesisir Selatan Regency. This area is surrounded by estuaries and beaches, at this conservation location pine trees are lining the edge of the beach. The turtle conservation area in Ampiang Parak Pesisir Selatan Regency is an effort of the Amping Parak Environmental Care Youth Army which is a group of the people. People watchdog groups. According to the Nagari Ampiang Parak Regulation No. 4/2019 concerning "Efforts to develop Ecotourism based on Disaster Risk Reduction CHAPTER VII Rights", things that are mandatory and prohibited articles 27, 29, 30: Every tourist has the right to participate and contribute to conservation activities environment and conservation in ecotourism areas, the Nagari government must carry out maintenance, development, and preservation of Nagari assets which increase tourism interest and potential assets that have not been explored and carry out supervision and control of ecotourism activities to prevent and overcome various bad effects for the entire peope.

The people in Nagari Ampiang Parak must protect and preserve tourist attractions, report and prevent damage to conservation activities, report and prevent turtle hunting, take turtle eggs for purposes other than conservation activities, report and prevent consumption of turtle meat and eggs, report and prevent trade in turtles, turtle eggs and other turtle derivative products and also provide assistance in creating conditions that are safe, orderly,

clean, have polite behavior and maintain the sustainability of ecotourism destination areas. Based on initial observations made by the author at Turtle Beach Conservation, it was found that public understanding of the status of turtles is still a challenge because there are still people who steal and sell turtle eggs, and many turtles are trapped in fishermen's trawls and nets, then just left injured, this is because Public understanding of animal protection and coastal vegetation is still low. According to Law No. 5/1990 concerning "The conservation of Natural Resources and Ecosystems", perpetrators of trading (buying or selling) protected animals, for example, sea turtles, can be imprisoned for 5 years and fined IDR. 100 million. The environmental impact caused by tourists in turtle conservation areas is the amount of rubbish strewn on the shore, especially plastic waste, which makes it difficult for turtles to come ashore. Another problem found in turtle beach conservation is that services in facilities and infrastructure are still inadequate in turtle conservation as seen by the existence of beach erosion which is caused by abrasion, abrasion also caused its falltree sea pines in the hundreds at that location. If treatment is not carried out immediately, the beach will continue to erode.

METHODS

The method used in this research is a qualitative method through the use of a purposive sampling technique (Candra et al., 2022; Aryantie et al., 2023). The location of this research is at the Nagari Ampiang Parak Turtle Beach tourist attraction, Pesisir Selatan Regency, and the Department of Maritime Affairs and Fisheries, West Sumatra Province. Techniques for collecting data are carried out through observation, interviews, and documentation. In the data validity testing process, source triangulation analysis is used, namely reducing data, presenting data, and making conclusions or verification.

RESULTS

Based on Ministerial Decree No. 09/2021 concerning "Guidelines for Sustainable Tourism Destinations", explaining environmental sustainability standards, namely conservation of everything that nature has inherited, management of resources, waste, and emissions, the author only focuses on natural heritage conservation, and resource management:

3.1 Natural Heritage Conservation

Natural heritage conservation is the protection of ecosystems to preserve ecosystems for the sustainability of life on earth nature conservation requires a multidisciplinary approach whose success will involve various parties, because basically what is needed for conservation is what is needed collectively (Boley & Green, 2016).

In terms of the sustainability of turtles in Nagari Ampiang Parak, the Pokmaswas Laskar Youth Organization which cares about the environment has implemented a mechanism for conserving natural heritage on Turtle Beach. In realizing sustainable tourism destinations, the mechanisms that have been implemented by the environmentally conscious youth army people service organization include: 1) The turtle conservation has 2 websites, the first is pasisiarancak.com and the second is jasamitra.com; 2) Carrying out group patrols to control foreign animals/predators entering turtle conservation areas; 3) The income mechanism from tourism activities in turtle conservation is used for conservation operations, and part of it is used for workers' salaries during activities; 4) The group provides signposts around the conservation area for visitors; 5) Pokmaswas groups receive training; 6) Points were allocated for tour guides to monitoring visitors' movements in interacting with turtles; 7) The tour guide provides information about turtle protection and procedures for interacting well with turtles; and 8) Exists law about turtle protection as a template for turtle protection.

Turtle conservation destinations are not yet optimal in realizing environmental sustainability. To realize natural heritage conservation, the group must have a website as a medium for information to the public about turtle protection which includes types of turtles and turtle vulnerabilities. However, the Ampiang Parak turtle conservation does not have a website and only has a website as an information medium containing turtle conservation activities, 2 websites namely passisiarancak.com and jasamitra.com but for environmental sustainability, the destination should have a website as an information medium for monitoring protection efforts.

Carrying out group patrols to control foreign animals/predators entering turtle conservation areas. This patrol is carried out by group members, in turn, to protect the natural heritage at the Turtle Beach conservation. One of the goals of the destination is to provide a good economic impact, turtle conservation gets income from tourist visits, where this income is used as operational costs for the conservation and group. The turtle conservation destination operates in the field of education and education, the Ampiang Parak turtle destination provides guidance signs for visitors and the destination also has an information board that contains turtle protection laws.

As a place of education and education, the guide group is of course a milestone in providing information about turtles to visitors and supervising visitors' movements in interacting with turtles. Therefore, so that the information conveyed by the guides is correct and valid, the guides and groups must receive training as a form of effort to upgrade their knowledge. People supervisory groups have received training like tourist area management training, turtle conservation center management training, tourism marketing training, tour guide and interpreter training, emergency management (first aid), and disaster management training) and tourism awareness outreach to Nagari managers and residents. It can be seen that the management of natural heritage conservation is not yet optimal because sensitive environmental management has not been implemented in managing the list of sites as a medium for information on turtle protection.

3.2 Resource Management

Resources are tools or conditions that humans can use to fulfill what they need in life, including all things that have a form or that do not have a form, which is used to achieve results, problems with equipment, supplies, time, and labor. Ministerial Regulation No. 9/2021 concerning "References for sustainable tourism destinations" in resource management in environmental sustainability consists of 3 criteria consisting of energy conservation, water stewardship, and water quality. Destinations are based on reducing energy use, supporting increased efficiency of its use, and contributing to the use of renewable energy.

Reducing the use of energy resources. The destination uses electrical energy only to raise water from the sanyo to fill the turtle tank, and bathroom and for activities at night. The group also reduces the use of light because turtles are afraid of light. Turtle conservation does not yet have renewable energy, renewable energy already exists in Nagari Ampiang Parak.

Water stewardship in turtle conservation is not yet optimal, because the destination does not yet have a reference and support in carrying out reviews and minimizing water use from business entities, the destination also does not have a program for regularly assessing water risks, the destination has one form of monitoring water stewardship, namely that the water inside the turtle conservation is more salty and the water outside the turtle conservation is fresher because it is used by the people and visitors. The water quality at the destination can only be used for cleaning and ablution activities, this is because the destination does not yet have data reports on water quality, even though the Ministry of Maritime Affairs has carried out tests on water levels and salt content, but the group did not get the remaining data. From the findings in the field, resource management is not yet optimal because the destination does not yet have renewable energy as an alternative energy that can be used, there are no references and things that support it in carrying out reviews on efforts to minimize water from businesses and the destination does not yet have data and reports regarding water quality.

3.3 Inhibiting Factors and Supporting Factors

Factor money rate: People still look for, sell, and consume turtle eggs: Turtles are turtles in the sea that are found in every ocean world. Turtles are one of the ancient animals that still live today. Turtles are included as one between animal who gets protection due to the large number of turtles that are approaching extinction in this era. Regulations regarding turtle protection have become the basis for efforts to protect turtles. But in reality, the majority of people in the area conserve turtles. Still, many people which stalking and taking, selling, and consuming turtle eggs to increase stamina. The entry of invasive foreign species into turtle conservation areas in hatching turtle eggs in the Ampiang Parak turtle conservation area, natural hatching is used, where the parents immediately look for a place to lay their eggs on the beach area by making a hole as a place to drop the eggs and then covering them with sand. With this dropping pattern, there are many challenges from wild animals to dig up and eat turtle eggs. These

- invasive alien species include dogs, monitor lizards, and birds. This invasive animal can easily enter because the turtle conservation area is open and has several entrances.
- Supporting factors: There is a group of turtle observers observer turtle is a group that comes from the local people and seeks to protect monitoring marine and fisheries resources from the dangers that lurk for the sustainability of the turtles themselves. The existence of this group will provide strict protection for continuity turtle because this group has a card and has the right to arrest if anyone is caught taking, selling, and consuming activities that eliminate the turtle's sustainability. Understanding public already turtle conservation is starting to increase. Turtle conservation will be sustainable if there is a good understanding of preserving this natural heritage people who take turtle eggs because people already know about turtle protection and the sanctions they will receive if they carry out actions that violate the law regarding turtle protection.
- Already have clear regulations from the Nagari: Regulations are used as a basis for action so that people cannot be indecent in carrying out actions that can damage natural heritage. The regulations issued by the Nagari are the Nagari Ampiang Parak Regulations No. 4/2019 concerning efforts to develop ecotourism based on minimizing the risk of disasters, this regulation contains efforts to protect turtles for the sake of sea turtle sustainability. in Nagari Ampiang Parak, Pesisir Selatan Regency, and can be used as a legacy for future generations.

CONCLUSIONS

Natural heritage conservation, the destination has managed natural heritage conservation quite well, although several things must be maximized, such as the destination does not yet have a system for monitoring, such as not having a list of natural heritage asset sites for turtle protection efforts, measuring and responding to the effects tourism in the natural environment has been carried out by. Second, resource management, in resource management there are three types of management, namely energy conservation, water stewardship, and water quality, resource management has been running but is not yet optimal because the destination does not yet have renewable energy, the destination does not have guidelines for monitoring reductions in water use and destinations yet. have data and reports on water quality. Inhibiting and supporting factors in environmental sustainability based on natural heritage conservation and resource management at the coastal tourist attraction of turtle Nagari Ampiang Parak, Pesisir Selatan Regency, namely inhibiting factors. The people is still looking for, selling, and consuming turtle eggs, and the entry of invasive foreign species into the turtle conservation area. Supporting factors, the existence of turtle observer groups, and public understanding have begun to increase regarding turtle conservation. There are already clear regulations from the Nagari.

REFERENCES

- Aryantie, M. H., Hidayat, M. Y., Widodo, T., Putra, A., & Dewata, I. (2023). Environmental Perspectives to the Rejection of Javanese Karst Mining in Systematic Literature Reviews. *International Journal of Sustainable Development & Planning*, 18(12). 3757-3764.
- Boley, B. B., & Green, G. T. (2016). Ecotourism and natural resource conservation: the 'potential' for a sustainable symbiotic relationship. Journal of Ecotourism, 15(1), 36-50.
- Candra, O., Putra, A., Islami, S., Yanto, D. T. P., Revina, R., & Yolanda, R. (2023). Work Willingness of VHS Students at Post-Industrial Placement. *TEM Journal*, *12*(1). 265-274.
- Damanhuri, D., Dahelmi., & Syandri, H. (2012). The Economic Value of Turtle Conservation. International Conference Competitiveness of Economy in The Global Market. 454-462.
- Mellu, M. R., Bessie, J. L., & Bunga, T. T. (2018). Analisis Faktor Penunjang Dan Penghambat Pengembangan Objek Wisata (Studi Pada Objek Wisata Alam Bola Palelo, Kecamatan Mollo Tengah, Kabupaten Timor Tengah Selatan). JOURNAL OF MANAGEMENT Small and Medium Enterprises (SME's), 7(2), 269-286.
- Mihalic, T. (2020). Conceptualising overtourism: A sustainability approach. Annals of Tourism Research, 84, 103025.
- Mubarak, A., Saputra, B., Frinaldi, A., & Suryani, A. (2023). Environmental Sustainability Analysis: A Theoretical Review of Emissions and Sanitation Management in Realizing Sustainable Tourism at Turtle Tourism Beaches in West Sumatra, Indonesia. IOP Conference Series: Earth and Environmental Science. 1268. 1. 012005.
- Mubarak, A., Saputra, B., Frinaldi, A., & Triono, A. (2022). Analysis of Ranjo Batu Community Perception of Unlicensed Gold Mining Activities on Environmental Quality. In IOP Conference Series: Earth and Environmental Science. 1098. 1. 012004.
- Putra, A., Dewata, I., Hermon, D., Barlian, E., Umar, G., Widodo, T., & Damanhuri, H. (2023). Activity Recommendations Based on an Environmental Approach in Zoning of Marine Protected Areas (MAPS) Pariaman City-Indonesia. *EnvironmentAsia*, 16(3). 57-67
- Rosana, M. (2018). Kebijakan pembangunan berkelanjutan yang berwawasan lingkungan di Indonesia. Jurnal Kelola: Jurnal Ilmu Sosial, 1(1).
- Spenceley, A., & Meyer, D. (2012). Tourism and poverty reduction: Theory and practice in less economically developed countries. Journal of Sustainable Tourism, 20(3), 297-317.
- Telfer, D. J., & Sharpley, R. (2015). Tourism and development in the developing world. Routledge.