

# Sustainable Tourism: A Challenge for Nature-based Tourism (NBT) Object

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**Abstract.** *The tourism sector contributes to gross domestic product (GDP) of 4.05% (2020) and 4.2% (2021). Likewise, the tourism sector's foreign exchange in 2020 was 3.2 billion US dollars. One of the potentials of the Indonesian tourism sector is Natural-based Tourism (NBT) tourist attractions such as national parks, geoparks, flora and fauna parks, conservation forests, rural tourism and the like. For example the Ir.H Djuanda Grand Forest Park (Tahura) conservation forest in Bandung City, and Ujung Kulon National Park (TNUK) in Pandeglang Regency. However, many tourist destinations have not implemented the concept of sustainable tourism which consist of three main elements, namely social, economic and environmental. As a result, many tourist destinations have ignored environmental sustainability, created pollution, produced waste, and did not involve local communities. The research results show that several NBT managements face internal and external problems such as habitat destruction, land degradation, illegal logging and poaching. Therefore, the development of NBT needs to be redesigned in accordance with implementing the concept of sustainable tourism so that it is competitive and sustainable.*

**Keywords:** *Eco tourism, Nature-based Tourism (NBT), Sustainable tourism*

## 1. Introduction

The tourism industry is the fastest growing industry in the world, every year the number of tourists and the number of tourist destinations increases. In 2020 the number of foreign tourist reached 4.05 million people but in 2021 it decreased to 1,5 million people. In 2022 the Ministry of Tourism and Creative Economy (Kemenparekraf) targets around 1,8 million – 3,6 million foreign tourist. Meanwhile, domestic tourists as the mainstay are targeted at 260-280 million people. The tourism market continues to increase every year, except during the Covid-19 pandemic which has caused many tourism entrepreneurs to experience huge losses because their predictions were wrong. The tourism sector is the second largest foreign exchange contributor. So this sector is relied on to revive the national economy due to the impact of the Covid-19 pandemic. The government hopes that the tourism sector can boost the national

economy due to the Covid-19 pandemic crisis. The tourism sector also contributes to other sectors, such as gross domestic product (GDP). The contribution of tourism GDP showed positive results, namely 4.05% (2020) and 4,2% (2021). Foreign exchange for the tourism sector in 2019 amounted to 16,9 billion US dollar while in 2020 it was 3,2 billion US dollars.

The government targets the tourism sector's foreign exchange value to increase to USD 1,7 billion ( $\pm$  Rp. 24 billion) in 2022. However, domestic tourists are a potential segment in efforts to revive the tourism sector because the potential is large. Although, their characteristics are different from foreign tourists in terms of spending their money because they spend less money.

Indonesia has rich natural resources and complete types of flora and fauna as capital to build the tourism industry. Examples of natural tourism potential include seas, beaches, lakes, rivers, mountains, hills, forests and many more. Some natural tourist destinations in Indonesia are geoparks, national parks, flora and fauna conservation forests, tourist villages, rural tourism, and others. This natural destination has many functions, including as an object of research, education, conservation and recreation. The nature-based tourism (NBT) industry has the potential to bolster regional economies, particularly in rural areas where the majority of NBT businesses are situated (Haukeland et al., 2023). A broad definition of NBT is travel to natural locations that may be used for leisure activities such as adventure races in Brazil, where interactions with plants, animals, and other plants occur accidentally or that are the purpose of a visitor's visit to learn about the local environment (Wolf et al., 2019).

In the last few decades a global issue has emerged regarding the concept of sustainable tourism, especially aimed at managing tourist destinations related to the natural environment. Tourism development that is vulnerable to environmental damage is an important issue in many tourism destinations throughout the world. This is due to uncontrolled development of tourist attractions and excessive exploration of nature. Many natural environments have been damaged as a result of being used as tourist attractions. For example, the construction of hotels, restaurants, cafes and supporting infrastructure such as airports, toll roads, plane and bus terminals, arts and culture buildings, as well as parking lots for tourist vehicles. These physical infrastructures can damage the natural environment if they are not designed properly. Apart from damaging the physical environment, it has also caused various kinds of pollution such as production of waste which pollutes the environment around tourist attractions, pollutes underground water and air pollution. Most visitors at tourist attractions or passengers on planes, buses and trains consume instant food and drinks from containers made of plastic, styrofoam, cans and used bottles. Used food or drink packaging needs to be managed well by tourist attraction managers so that it does not litter and contaminate the place. Most of the waste in Indonesia is food waste.

The concept of sustainable tourism aims to preserve nature which is used as a tourist destination so that the business can continue for future generations. Basically, the sustainable tourism concept is holistic and designed to accommodate all stakeholders' needs, especially local residents, to be actively involved in these new business activities so that they do not lose their previous income. On the other hand, the sustainable tourism concept is expected to increase the income of local residents. This research aims to examine how the concept of sustainable tourism is practiced at NBT Taman Hutan Raya (Tahura) Ir. H. Djuanda, Bandung and Ujung Kulon National Park (TNUK) in Pandeglang Regency. Well-known protected areas (PAs) such as Tahura and TNUK frequently struggle to strike a balance between their dual roles as consumable tourist destinations and places for the conservation of nature (Taczanowska et al., 2019). The establishment and sustenance of protected areas (PAs) encounter persistent obstacles such as inadequate administration, illicit wildlife trade, rivalry for natural resources, conflict between humans and wildlife, and insufficient funding and community involvement (Gupta et al., 2023).

The aim of research is to provide input to government stakeholders as shareholders of the two NBTs and tourism industry players in implementing the holistic concept of sustainable tourism. By implementing the sustainable tourism concept, stakeholders can improve the quality of the environment around tourist attractions to make it cleaner, attract more visitors and be able to compete with other tourist destinations. Currently, the development of tourist destinations is increasingly mushrooming in various regions in Indonesia, causing competition in the tourism industry to become increasingly competitive.

The negative impacts of developing tourist destinations include, among other things, economic leakage, damage to the natural environment, and population density or urbanization. For example, the construction of the Mandalika International Circuit in the tourism Special Economic Zone (KEK) in Central Lombok, West Nusa Tenggara Province, has caused many residents at the project location to lose their agricultural land, residence and work, which has created various new problems. Another negative impact is flooding because some of the land surface does not absorb rainwater. The road to the rice fields and plantations must go around a circuit so that the distance is farther and takes longer. In fact, most of the development of tourist destinations is solely profit-oriented and favors capital owners or the government as the main stakeholder. There is a negative view that the tourism sector is considered a serious threat to the existence of the natural environment.

## **2.Literature Review**

### *2.1 Sustainable Tourism*

Sustainable tourism is defined by the United Nations Environment Program and the United Nations World Tourism Organization (UNWTO) through the following 4 pillars: 1) Sustainable management; 2) Social economy; 3) Sustainable culture; 4) Environmental sustainability. Meanwhile, the International Labor Organization (ILO) defines it through the following 3 pillars: 1) Social justice; 2) Economic development; and 3) Environmental Integrity. According to Sørensen and Grindstedand (2021) sustainable tourism is commercially feasible travel that "does not destroy the resources on which the future of tourism will depend, notably the physical environment and the social fabric of the host community." In the literature on tourism, sustainability is discussed in terms of its advantages and disadvantages (Sahebalzamani and Bertella, 2018).The "Sustainability and responsible travel" trend is a reflection of the desire to travel as sustainably as possible in order to reduce carbon footprint and the impact on the environment (Haukeland et al., 2023).

Due to changes in the environment and consumer behavior, tourism destinations today confront a variety of new problems (Sotiriades, 2012). Butler (1993) describes sustainable tourism as a form of tourism that can maintain its viability in an area for an indefinite period of time (Garg and Pandey, 2020). Without a doubt, the idea of sustainable tourism alludes to the more general idea of sustainable development (Butowski, 2021). Sustainable tourism is committed to natural resource conservation and the local community's well-being for its sustainability (Amado and Rodrigues, 2021). Three overarching concepts of sustainable tourism - economic, ecological, and sociocultural-help us comprehend what the fundamental tenets of any endeavor promoting sustainable tourism should be (Mandic et al., 2020;Samuil and Ionica, 2021).

### *2.2 Nature-based Tourism (NBT)*

In recent decades, there has been a rise in the monetization of nature. The economic significance of nature experiences, and the significance of nature tourism (Sørensen and Grindstedand, 2021). According to Buckley nature-based tourism refers to "all forms of tourism where natural environments form the primary attraction or setting."(Taczanowska et al., 2019). The term "nature tourism" describes the observation of landscape beauty, or flora and wildlife; the emphasis is on nature itself, namely its unique experiences and attractions (Yan, 2018). Nature-based tourism (NBT), which is defined as tourism by visitors in natural settings, is heavily dependent on natural resources (Fossgard and Stensland, 2021) sometimes referred to as ecotourism or nature tourism (An et al., 2019). The NBT is defined as "all forms of tourism

where natural environments form the primary attraction or setting" (Taczanowska et al., 2019). Tourists can enjoy a variety of leisure activities, environmental education, and entertainment in NBT sites like sandy beaches, coral reefs, and wildlife habitats (Han et al., 2016). Because some people like spending time with wildlife and exploring natural regions (Wolf et al., 2019). The majority of sites for NBT are found in protected areas (An et al., 2019). The NBT relies heavily on experiences which lies in its natural and cultural assets (Mandić and McCool, 2023). (Mandić and McCool, 2023) which is important for the growth of local communities and may potentially create significant revenue for the protected area itself (Taczanowska et al., 2019). According to simulations, NBT generates substantial economic advantages for the poorest households and the communities surrounding protected areas (PAs). A large portion of these benefits are derived indirectly through production and income spillovers (Gupta et al., 2023). According to Wolf et al. (2019), NBT may result in a number of issues, including the depletion of natural resources, an increase in roadkill, the disturbance of animals from vital feeding and breeding grounds, or inappropriate feeding, whether done knowingly or unknowingly. Understanding tourists' environmentally responsible behavior while traveling is critical to NBTs when they expect both economic and environmental sustainability (Han et al., 2016). A wide range of outdoor activities, including hiking, backpacking, skiing, boating, camping, angling, hunting, kayaking, and biking, are included in NBT (Haukeland et al., 2023). Rural nature tourism is primarily a form of NBT that takes place outside of urban or suburban regions in rural settings that are defined by low population density, "traditional" social structures, and economic activity centered around agriculture and forests (Strzelecka et al., 2023).

### 3. Research Methods

There are many NBT tourist destinations in regions throughout Indonesia, each of which has its own unique collection. However, the phenomenon that occurs is that the number of tourists visiting NBT is still minimal compared to other tourist destinations. This is interesting to research so that the research results can be input for NBT tourism destination stakeholders, namely the government. Therefore, this article focuses on the problems that occur in NBT management in Indonesia.

This research uses a qualitative approach that is flexible and exploratory methodology is used to achieve predetermined research objectives. In general, qualitative research tends to come from very different paradigms and intrinsically demands different and unusual criteria in evaluating research (Yadav, 2022). Qualitative research of the highest caliber should develop standards that center on the research topic's value, morality, practicality, timeliness, relevance, and merit as well as the study's ethical position (Tracy, 2010). In addition, researchers have proposed a set of guidelines for evaluating the caliber of a qualitative study, including the need for strong, well-informed, and comprehensive documentation (Nassaji, 2020).

The research method is descriptive that the findings from descriptive research provide valuable insights and provide input for future research, but do not necessarily establish cause-and-effect relationships. The research objects are the Tahura conservation forest in Bandung City and the nature conservation, flora and fauna of TNUK in Pandeglang Regency. Both tourist destinations have natural tourism and artificial tourism as tourist attractions. This research uses secondary data from scientific journal articles, the internet and websites. The research results show that the two NBTs experience obstacles in practicing the concept of sustainable tourism due to various factors, including waste that is thrown carelessly by tourists. Apart from that, entrance ticket income is small, while maintenance and maintenance costs require a lot of money. Even though it is supported by a budget from the government, the amount is not commensurate with the expenditure. This causes the implementation of the concept of sustainable tourism in both NBTs to not be optimal.

### 4. Results and Discussion

#### 4.1 Tourist Destination and Economics Impact

Ideally, the development of a tourist destination can improve the standard of living of local residents, reduce unemployment and reduce poverty. An example is empowering local communities to become sociopreneurs who are directly involved in the industry. Communities in and surrounding protected areas can benefit economically from nature-based tourism (Gupta et al., 2023). Engaging in tourism activities reduces local unemployment, which can lessen the likelihood of poverty. Therefore, the prospects for the tourist sector are considered as being able to improve the quality of life and welfare of regional communities (Batista et al., 2022).

Finding a balance between environmental responsibility and economic viability is difficult in places where tourism is centered around nature. In order to fulfill their twin responsibilities, destination marketers and resource managers must give visitors top-notch experiences and encourage ecologically conscious traveler behavior (Han et al., 2016). In some cases, local residents who only act as spectators become marginal because they do not obtain economic benefits from tourism business activities. They are only exploited for the purposes of developing tourist attractions. In addition, the tourist industry has seen a number of detrimental effects and difficulties, including overtourism, pollution, stakeholder conflict, loss of site integrity, and modern problems like climate change (Padma et al., 201X). Accordingly, conflicts resulting from rural nature tourism may arise between rural stakeholders vying for the many benefits that the local environment offers to a community or between those stakeholders vying for dominance in the local economic sphere (Strzelecka et al., 2019).

There are many cases of conflict of interest in NBT development between local communities as land owners and investors or the government. For example, each recognizes ownership of disputed land or local residents use NBT land such as national parks for fields or take wood from national parks. Some poachers hunt protected animals by poisoning, shooting or snaring. Cases of poaching often occur in the TNUK area, they hunt one-horned rhinos which are very rare. There are many problems faced by national park managers. The study show that several tourist destination in Indonesia have not involved local resident stakeholders, is one of holistic concept of economic issues, social concerns, environmental conservation, enhancing the tourist experience, and meeting the needs of the host community, and others. Generally, the negative impact of the existence of tourist destinations is the marginalization of local residents.

#### *4.1 Grand Forest Park (Tahura) Ir. H. Juanda*

Grand Forest Park (Tahura) Ir. H. Djuanda, Bandung, which is located in the North of Bandung City with a distance of  $\pm 7$  Km from the city center. Tahura's location borders several villages in Bandung Regency, West Bandung Regency, and Bandung City. Administratively, it is located in the Ciburial Village area, Cimenyan District, Bandung Regency and Cibodas Village, Langensari Village, and Wangunharja Village, Lembang District, West Bandung Regency and Dago Village, Coblong District, Bandung City. Based on the reconstruction results of the Tahura boundaries in 2003 the area was 526.98 hectares. Tahura's geographical location is  $107^{\circ} 30'$  East longitude and  $6^{\circ} 52'$  South latitude. The Tahura conservation forest was inaugurated in 1965 but on January 14 1985 it was changed to the Grand Forest Park of Ir. H Djuanda which coincides with the birthday of Ir. H Djuanda. So far, Tahura has served as the name of the conservation area and the lungs of Bandung City. Tahura entry ticket levy for foreign tourists is IDR. 57,000/person and domestic tourists Rp. 17,000,-/person.





Fig. 1 Grand Forest Park (Tahura) gate Ir.H.Djuanda.Source: Kompasiana.com

Tahura has various types of plants but Pine trees (*Pinus merkusii*) are very dominant. It is estimated that there are around 2500 types of trees belonging to 40 families of 112 species. Tahura Djuanda has a secondary natural forest vegetation type which is dominated by Pine (*Pinus merkusii*), Kaliandra (*Calliandra calothyrsus*), Bamboo (*Bambusa sp.*) and various types of trees such as Teklan plant (*Eupatorium sp.*). Meanwhile, the fauna found in the Tahura area includes ferrets (*Paradoxurus herma paproditus*), squirrels (*Callosciurus notatus*), monkeys (*Macaca insularis*) and various types of birds such as orioles (*Oriolus chinensis*), ketilang (*Pycnonotus caferaurigaster*) and partridges (*Pycnonotus caferaurigaster*), and Gallus (*Gallus bankiva*).

Tahura is one of the conservation forest in the Bandung basin which functions as a conservation site for biological natural resources and their ecosystem. Tahura is a nature conservation area which has a collection of plants and animals. Tahura can be used for research, education, cultivation, culture, tourism and recreation. The Tahura area was previously a protected forest area of Mount Pulosari which was managed by the Dutch East Indies government since 1922. The water source in Tahura is the Cikapundung river which stretches for 15 kilometers and has an average width of 8 meters with a water flow of around 3,000 m<sup>3</sup>/second. The Cikapundung River is a tributary of the Citarum River which has its headwaters at Mount Bukit tinggil. Apart from that, there are also several springs that originate from the Mount Pulosari forest group.

The touristic attraction of Tahura, apart from flora and fauna, is that there are also artificial tourist attractions such as the Dutch cave which is located about 500 meters from the main entrance of Tahura Djuanda. The cave was built in 1901 and functions as a hydroelectric power plant. However, in 1918 the Dutch carried out renovations by adding passages and corridors in the cave. Towards World War II in early 1941, the Dutch made this tunnel a fort or military headquarters. In this tunnel they built a cave network of 15 passages and 2 entrances as high as 3.2 meters. The area of the courtyard used by the cave is 0.6 hectares and the entire area of the cave and its passages is 547 meters. The Japanese cave is about 300 meters from the Dutch cave, built by the Japanese military in 1942 to function as a military barracks and protection. The Japanese Cave has four entrances and two guard holes. There are 18 bunkers that are still in their original condition which have different functions, for example as a lookout place, shooting place, meeting room, warehouse and kitchen. Another attraction of Tahura is the Keraton cliff which is at an altitude of 1200 meters above sea level. This location is very famous on social media because visitors can enjoy the green views of Tahura. The Keraton cliff offers a wide expanse of the Lembang fault line and views of dense forest. Apart from that, from the Keraton cliff you can also see views of sunrise and sunset. Entrance ticket to the

Keraton cliff is IDR 11,000/person. Motorbike parking tickets are IDR 5,000 while for cars IDR 10,000. Curug Omas is a waterfall that has a height of up to 30 meters with a water depth of up to 10 meters in Tahura Djuanda. Curug Omas is a meeting point of two rivers, namely the Cikawari river and the Cigulun river. These two rivers meet at one point and will later unite to become the Cikapundung Hulu river. Above this waterfall there is a bridge that can be used to cross and see the waterfall from above. In Tahura, there are several waterfalls, namely Omas waterfall, Cigulung waterfall, Cikawari waterfall and Cikoleang waterfall, each of which has a height of around 15 meters, 14 meters and 16 meters. These three waterfalls are known as Maribaya waterfalls. In this area there is also another waterfall, namely the Lalay waterfall, which is located not far from the Omas waterfall. Meanwhile, Dago waterfall is at an altitude of 800 meters above sea level. The height of the waterfall is around 12 meters. Curug Dago is a natural heritage formed from lava flows from the eruption of Mount Tangkuban Perahu between 125 thousand and 48 thousand years ago. Adjacent to the Dago waterfall is the caldera from the eruption of Mount Sunda. The former volcanic eruption has made Dago waterfall and its surroundings a water source for the downstream area of Bandung.

#### 4.2 Ujung Kulon National Park Area (TNUK)

The Ujung Kulon National Park (TNUK) area was first introduced by a German botanist, namely Franz Wilhelm Junghun, in 1846, when he was conducting research on tropical plants. TNUK consists of the Mount Honje nature reserve, the Panaitan Island nature reserve, the Peucang Island nature reserve, and the Ujung Kulon nature reserve which has a land area of 61,357.46 hectares and surrounding sea waters covering an area of 44,337 hectares. The total area of TNUK is 105,694.46 hectares. The geographical location of TNUK is at 6°30'-6°52' South Latitude, 102°02'-105°37'.

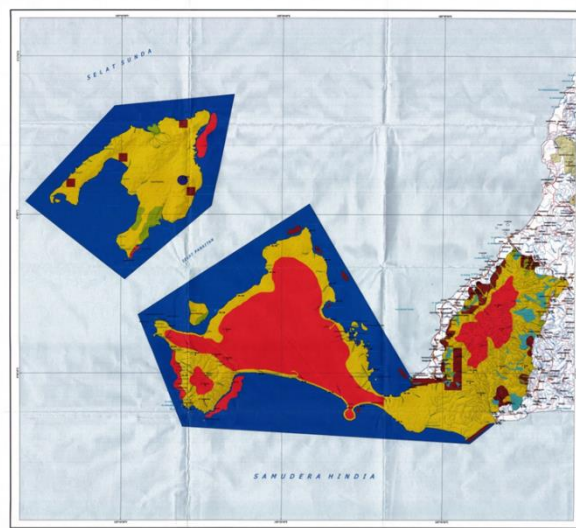


Fig.2 Map of Ujung Kulon National Park. Source: Ujung Kulon National Park Website

TNUK has around 160 species of rare flora which are divided into 3 ecosystems, namely: 1. Marine Aquatic Ecosystem, 2. Coastal Ecosystem, and 3. Land Ecosystem (Terrestrial). Apart from that, there are rare fauna such as the Javan Rhinoceros, Javan Gibbon and various types of eagles totaling 46 species. The one-horned Javan rhinoceros is most often hunted by poachers, causing its numbers to decline. The problem faced by TNUK officers is the limited number of personnel while the area that must be monitored is very large. The TNUK entry ticket levy for foreign tourists is IDR. 150,000/person/day and domestic tourists Rp. 5,000,-/person/day. For Sunday holidays and National holidays the entry ticket levy for foreign tourists is IDR. 225,000/person/day and domestic tourists Rp. 7,500,-/person/day. Exploring the vast TNUK with its various attractions takes more than one day.

TNUK has several beautiful islands and each is unique. Peucang Island has a pristine white sand beach with a wide expanse. The natural tourist attractions on the island are tracking, swimming, snorkeling and diving. Meanwhile, wildlife viewing can be done by crossing into the Cidaon grazing fields to see the habitat of bulls, peacocks, deer and wild boars. Handeuleum Island is located among several small islands located at the northeastern tip of the coast of the Ujung Kulon peninsula. Handeuleum Island is an island that is rich in mangrove species diversity. On this island there are locations to enjoy the beauty of various types of forest plants, various types of wildlife and swamp areas. The journey to this place can be traversed via the Cigenter river. The tourist attraction on Handeuleum Island is canoeing along the Cigenter river in the middle of the mangrove forest. Upstream of the river there is a view of the Cigenter waterfall. Panaitan Island is formed by pristine forests inhabited by various types of wild and rare animals such as deer, wild boars, monkeys, pythons, eagles and other types of birds. Apart from that, there are several types of freshwater crocodiles and giant lizards. The condition of the beach is rocky and has a wide stretch of white sand to protect the beautiful coral reefs. One of the high hills known as Mount Raksa contains ancient Hindu statues. Panaitan Island has a large bay located in the southern part of the island. The waves in the bay can be used for surfing. One of them is "One Palm Point" which is famous for its rolling waves breaking over shallow coral. Apart from surfing, Panaitan Island also has several interesting locations for diving activities located at the ends of the North and East coasts. Peucang Island, Panaitan Island and Handeuleum Island received UNESCO World Heritage Site status in 1991.

## CONCLUSION

In Indonesia, NBT tourism destinations for flora and fauna and forest conservation are less popular than natural tourist destinations such as beaches, mountains, seas, lakes, rivers or artificial tourist attractions in cities. Several reasons cause the lack of visitors to the Tahura tourist destination in Bandung City and TNUK in Pandeglang Regency, including, the location is very large, the collection can be seen or encountered in daily activities. For example, many types of flora can be found in flower gardens. Meanwhile, wild animals are more interesting to see in tourist destinations such as the Bogor Safari Park or in zoos because the place is managed and the animals are well looked after. Apart from that, enjoying the Bogor Safari Park is easier because you can use four-wheeled vehicles.

The Tahura and TNUK tourist destinations have limited income which comes from entrance ticket fees and parking fees and the government budget. Meanwhile, operational costs for maintaining collections, environmental cleanliness and looking after rare animals are very large. So the conditions are not good and less attractive for tourists who are purely for recreation. In general, natural tourist destinations face environmental cleanliness problems due to rubbish thrown away by visitors. This waste is used food and drink packaging such as plastic bottles, styrofoam packaging, instant drink sachets, plastic bags and so on. This waste can damage the environment and ecosystem of flora habitat in Tahura as well as river and marine biota in TNUK. The negative impact of the tourism industry on NBT in Tahura and TNUK is not in accordance with the concept of sustainable tourism. Therefore, special efforts to manage tourist destinations based on sustainable tourism require a greater role from stakeholders, especially the government because the two NBTs are owned by the government.

## REFERENCES

- Amado, Miguel., & Rodrigues, Evelina. (2021). Sustainable Tourism Planning: A Strategy for Oecusse-Ambeno, East Timor. *Urban Sci.* 2021, 5, 73. <https://doi.org/10.2290/urbansci5040073>
- An,Le.Thanh., Markowski, Janusz., Bartos, Maciej., Rzenca, Agnieszka., & Namiecinski, Piotr.(2019).An evaluation of destination attractiveness for nature-based tourism: Recommendations for the management of national parks in Vietnam. *Nature Conservation*, 32: 51–80. doi: 10.3897/natureconservation.32.30753
- Batista, Maria da Graça., Couto, Gualter.,Castanho, Rui.Alexandre.,Sousa, Áurea.,Pimentel, Pedro.,



- Carvalho,Célia.(2022). The Rural and Nature Tourism Development Potential in Islands. *Sustainability*, 14, 5289. <https://doi.org/10.3390/su14095289>
- Butowski, Leszek. (2021). Sustainable Tourism: A Human-Centered Approach. *Sustainability*, 13, 1835. <https://doi.org/10.3390/su13041835>
- Garg, Prerna., & Pandey, Anoop. (2020). Towards sustainable tourism: an empirical investigation. *Foresight*. DOI 10.1108/FS-04-2020-0042
- Gupta, Anubhab., Zhu, Heng.,Bhammar, Hasita.,Earley, Elizabeth.,Filipski, Mateusz., Narain, Urvashi., Spencer, Phoebe., Whitney,Edward., Taylor, J. Edward.(2023) Economic impact of nature-based tourism. *PLoS ONE* 18(4): e0282912. <https://doi.org/10.1371/journal.pone.0282912>
- Hafizha,Maura.Rosita.(2023). Taman Hutan Raya Ir H Djuanda: Sejarah, Objek Wisata, dan Harga Tiket. Available at: <https://travel.detik.com/domestic-destination/d-6693833/taman-hutan-rayair-h-djuanda-sejarah-objek-wisata-dan-harga-tiket>.
- Han,Ju.Hyoung., Lee, Min.Jae.,& Hwang, Yun-Seop.(2016). Tourists' Environmentally Responsible Behavior in Response to Climate Change and Tourist Experiences in Nature-Based Tourism. *Sustainability*,8, 644; doi:10.3390/su8070644
- Haukeland,Jan.Vidar., Fredman, Peter., Tyrväinen, Liisa., Siegrist, Dominik., & Lindberg, Kreg.(2023). Prospects for nature-based tourism: identifying trends with commercial potential, *Journal of Ecotourism*, DOI: 10.1080/14724049.2023.2178444
- Mandic, Dejan., Tomusilovic, Milos., & Adzemovic, Mesud. (2020). The Importance of Environmental Safety in the Application of the Concept of Smart Tourism Destinations. Univerzitet Singidunum, Beograd. DOI:[10.15308/Sitcon-2020-67-73](https://doi.org/10.15308/Sitcon-2020-67-73)
- Nassaji, Hossein.(2020). Good qualitative research. *Language Teaching Research*, 24(4), 427–431.
- Padma,Panchapakesan., Ramakrishna, Sundari., & Rasoolimanesh,S.Mostafa.(201X). Nature-Based Solutions in Tourism: A Review Of The Literature And Conceptualization. *Journal of Hospitality & Tourism Research*, Vol. XX, No. X, Month 201X, 1–25.DOI: 10.1177/1096348019890052
- Samuil, Ionela., & Ionica, Andreea Cristina. (2021). Business model based on community for a sustainable tourism development. MATEC Web of Conferences 342, 09004 (2021) *Universitaria Simpro*.Available at <https://doi.org/10.1051/matecconf/202134209004>
- Sørensen, Flemming., & Grindsted,Thomas.Skou.(2021).Sustainability approaches and nature tourism development. *Annals of Tourism Research*, 91,103307. <https://doi.org/10.1016/j.annals.2021.103307>
- Sahebalzamani, Samira., & Bertella,Giovanna.(2018).Business Models and Sustainability in Nature Tourism: A Systematic Review of the Literature.*Sustainability*, 10(9), 3226; <https://doi.org/10.3390/su10093226>
- Sotiriadis, Marios. (2017). Pairing intangible cultural heritage with tourism: the case of Mediterranean diet, *Euro Med Journal of Business*, Vo. 12 Issue: 3, pp. 269-284, <https://doi.org/10.1108/EMJB-07-2016-0019>
- Strzelecka,Marianna., Prince,Solène., & Boley,B.Bynum.(2023).Resident connection to nature and attitudes towards tourism: findings from three different rural nature tourism destinations in Poland, *Journal of Sustainable Tourism*, 31:3, 664-687, DOI: 10.1080/09669582.2021.1995399
- Taczanowska, Karolina., González,Luis-Millán., García-Massó, Xavier ., Zileba, Antoni., Brandenburg, Christiane., Muhar, Andreas., Pellicer-Chenoll,Maite.,& Toca-Herrera, José-Luis.(2019).*Sustainability*,11, 1314; doi:10.3390/su11051314
- Taman Nasional Ujung Kulon. Available at <https://tnujungkulon.menlhk.go.id>
- Tracy, S. J. (2010). Qualitative quality: Eight “big-tent” criteria for excellent qualitative research. *Qualitative Inquiry*, 16(10), 837–851.
- Wolf, Isabelle.D., Croft, David.B.,& Green,Ronda.J.(2019).Nature Conservation and Nature-Based Tourism: A Paradox? *Environments*, 6, 104. doi:10.3390/environments6090104
- Yadav, Drishti.(2022).Criteria for Good Qualitative Research: A Comprehensive Review.*Asia-Pacific Edu Res*, 31(6):679–689.DOI:<https://doi.org/10.1007/s40299-021-00619-0>
- Yan,Libo.(2018). Origins of nature tourism in imperial China.*Journal of Tourism Futures*, Vol. 4, No. 3, pp. 265-274, DOI.10.1108/JTF-04-2018-0016