

Birdwings Butterfly Preservation as a Sustainable Tourism Destination in Menyambouw Manokwari

Chelsia Renata Tri Wascita¹, I Dewa Gde Satrya²

^{1&2}Tourism Study Program, Faculty of Tourism, University of Ciputra, Indonesia

Email: ¹ ctriwascita@student.ciputra.ac.id , ² dewa.gde@ciputra.ac.id,

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Abstract

Purpose: This study examines and analyzes the potential development of bird wing butterfly breeding based on community involvement factors, surrounding destinations, and the strategies provided.

Research methods: The method used is descriptive qualitative, data mining with interview and direct observation techniques.

Findings: The breeding of the bird-wing butterfly (Ornithoptera Paradisea) is an effort to conserve rare animals that are only found in eastern Indonesia, especially in the Arfak Mountains. The location of bird's wing butterfly breeding is in the District of Menyambouw, Manokwari, West Papua. Birdwing butterfly breeding initially became a tourist attraction by one of the private sectors. However, due to several factors, the preservation and the villa could not survive and the owner decided to close the operation by delegating the preservation to the local community as managers with an ecotourism approach.

Implication: It is important to formulate a strategy for developing birdwing butterfly breeding destinations through partnerships for investment and the establishment of networks between tourist destinations.

Keywords: Birdwing butterfly, sustainable tourism, ecotourism, community engagement.

INTRODUCTION

Indonesia is located at coordinates 95°-141° east longitude and 6° latitude - 11° latitude, causing Indonesia to be crossed by the equator. Indonesia has a tropical climate so the air temperature and humidity tend to be warm which makes Indonesia one of the targets for animal migration from the northern and southern hemispheres because it is a good place for flora and fauna breeding. Therefore, Indonesia has many endemic animals, one of which is the butterfly. 50% of butterfly species in Indonesia are in Papua (Sutrisno, 2021). One of the rare and rarely known butterfly species is the bird-wing butterfly (Ornithoptera paradisea).

The bird-wing butterfly is one of the largest and most beautiful species of the genus Ornithoptera in the world. It is also one of the endemic species of Papua Island which has the characteristics of wing angles and how to fly like a bird. This happens because this type of butterfly has a fairly wide wingspan of 18-23 cm. Bird-wing butterflies can only be found in their habitat in the Arfak Mountains area, Manokwari, West Papua (ANP, 2015). According to the official IUCN website, the status of this butterfly is not yet of concern or Least Concern

(LC) (Warikar et al., 2019). However, researchers and the local community have anticipated efforts to make bird wing butterfly breeding in several places, one of which is in the District of Menyambouw Manokwari.

The only bird-wing butterfly breeding location in Menyambouw District is at Villa Oike which is an inn with bird-wing butterfly breeding as its main object. However, the private villa owner decided to close this tourist destination due to a significant decrease in the number of visitors from year to year. Currently, the bird wing butterfly is managed by the local community with private funds. The natural environment that is fertile and cool should be able to make the District of Menyambouw, especially the bird-wing butterfly breeding successful, with various methods, including by utilizing the surrounding tourist destinations.

Ecotourism itself can be interpreted as a tourist activity carried out by tourists in a remote area whose main purpose is to learn about nature, history, and culture in a tourist destination. Usually, this tourism activity helps the local community's economy and supports local nature conservation (WWF-Indonesia, 2009). Based on the object, ecotourism is divided into several types, namely mountain ecotourism, forest ecotourism, marine ecotourism, and karst ecotourism.

In its application, ecotourism has several characteristics including natural origin, environmentally sustainable, educative, beneficial for the local community, and can support visitor satisfaction. Derived from nature means that this destination is integrated with nature so that the ecosystem offered has a high selling value, environmentally sustainable means that this destination must focus on environmental preservation so that its beauty and sustainability are maintained, it is educative, meaning that this tourist destination can provide feedback in the form of education to the community. all parties, including the community and the private sector, participate in preserving the environment, benefit the local community, meaning that the community gets a positive impact or benefit from tourist destinations, and the last is to be able to support visitor satisfaction, meaning that not only local people benefit but visitors or tourists can also enjoy the natural beauty that is presented and have an awareness of nature and local culture.

Ecotourism has several benefits that have a positive effect on various aspects, including aspects of conservation, aspects of economic empowerment, and aspects of environmental education. Benefits in the conservation aspect are closely related to the preservation of endangered animals. The more positive the development of ecotourism, the more it will provide economic incentives to conserve animals, support and preserve cultural biodiversity and help protect natural and cultural heritage. While the benefits in the aspect of economic empowerment can be achieved because ecotourism activities involve local communities in carrying out their tourism activities. The more local communities are involved, the more the capacity of local community employment opportunities will be. This community empowerment method is an effective method to support the community's economy and fight poverty to achieve sustainable development.

The benefits the aspect of environmental education is related to the purpose of ecotourism, namely to provide knowledge and experience from nature and culture that is presented to tourists. Tourism activities must be able to provide an understanding, and appreciation of nature, society, and local culture as a whole (Dinas Lingkungan Hidup, 2021).

Ecotourism also has principles in carrying out tourism activities that aim to unite and maintain a living conservation environment, as well as support community development and sustainable tourism. This principle must be implemented by all actors participating in ecotourism activities. These principles include 8 things, namely reducing physical impacts, social impacts, behavioral impacts, and psychological impacts, providing awareness of the environment and culture, and providing good and pleasant experiences for visitors and hosts to increase sensitivity to political, environmental, and social issues related to places. tourism, making a direct contribution to finance for environmental conservation and sustainability as well as local communities, contributing to building, using facilities and infrastructure by reducing the impact on the environment, and lastly maintaining and preserving the spiritual beliefs of indigenous communities and helping to empower these communities (Dinas Lingkungan Hidup, 2021).

Conservation is the preservation of something in a controlled manner to prevent destruction or damage through preservation and preservation. Conservation comes from the word "conservation", which comes from the words con (together) and severe (to keep, to save what we have). According to the International Union for Conservation of Nature and Natural Resources or IUCN, conservation is an activity that regulates human life with natural resources to create the life that sustains and preserves each other. From the data above, the outline that can be drawn is that conservation is an activity carried out to maintain and protect our property (to keep, to save what we have) and to use it wisely (wise use). Conservation is not only defined by maintaining and preserving the natural environment but also how the process of preserving values and culture, as well as its maintenance and development for the perfection of human life (Patty, 2021).

Conservation areas have several characteristics including areas with authenticity and unique ecosystems, for example, such as mountains, lowlands, peat swamps, and beaches, then areas as living and important habitats for several species (flora and fauna), especially endemic, rare, and endangered flora and fauna, for example. such as Cendrawasih Birds, Cockatoos, Papuan Julang, and other plant species such as Agarwood, Rafflesia, and other species that are protected by legislation. Furthermore, the area in which there is a diversity of natural germplasm or substances carrying hereditary traits which can be in the form of intact organs or body parts of plants and animals that can be utilized for the advancement of science and technology. Then the area that has a unique and natural landscape or geophysical characteristic to support tourism activities. Furthermore, areas that have a hydro-oroological protection function or use to support the water cycle and protect soils such as rocks, soil, water, and global

climate. Then the last one is an area that preserves and maximizes natural nature such as lakes, and beaches, and has unique or interesting wildlife (Patty, 2021).

Based on Law Number 5 of 1990 concerning Conservation of Biological Natural Resources and Their Ecosystems in Article 1 paragraph 2, the definition of conservation of living natural resources is the management of living natural resources whose utilization is carried out wisely to ensure the continuity of their supply while maintaining and improving the quality of diversity and value (Patty, 2021). There are 2 (two) types of natural resource conservation areas, namely Nature Reserve Areas (KSA) and Nature Conservation Areas (KPA). The nature reserve area has certain characteristics and a function as a place for the preservation of plants, animals, and their ecosystems which will later be useful as a support for the life of living creatures. Meanwhile, nature conservation areas also have certain characteristics but function to protect the buffer system by utilizing biological natural resources and their ecosystems sustainably. Nature conservation has three main objectives, namely first, to maintain and maintain the lifestyle of living things in an area. Second, maintaining the diversity of flora and fauna in an area. Third, utilize living things and their ecosystems to maintain their sustainability in an area (Prinada, 2020).

To realize the vision and mission of education, conservation is developed into three pillars, namely protecting biodiversity to maintain the balance of population, environment, nature, and its ecosystem. Second, preserve natural resources and cultural heritage to maintain energy reserves from extinction. And thirdly, sustainably utilizing natural resources means contributing to enriching the diversity of energy resources and/or maximizing the use of new energy wisely supported by the use of environmentally friendly energy (Patty, 2021).

The Ministry of Tourism and Creative Economy has 4 focus pillars, namely sustainable tourism, long-term sustainable economy (Sustainable Economy), cultural sustainability (Sustainable culture), and environmental sustainability (Sustainable environment) (Kemenparekraf, 2021). Sustainable tourism or sustainable tourism is a tourism concept that is the result of development that aims to provide long-term impacts on the economy, society, environment, and culture both now and in the future for tourists and the local community (Kemenparekraf, 2021). Sustainable tourism ensures that the use of natural, social, and cultural resources in tourism can also be enjoyed by new generations (Arida, 2016). Sustainable tourism development has the principles of community involvement, participation of tourism actors or stakeholders, ownership by residents, sustainable use of resources, accommodating community goals, paying attention to carrying capacity, controlling and evaluating, accountability, training, and promotion (Iriyanti & Azis, 2012). First, the involvement of local communities participates in developing and implementing tourism activities such as participating in determining the vision of tourist destinations, helping to identify natural resources and factors that want to be maintained and improved, participating in developing destination management goals and strategies to increase tourist attraction, and participating in implementing jointly designed

strategies. Second, the participation of tourism actors or stakeholders is very influential in the development of a tourism area. The tourism actors include Non-Governmental Organizations (NGOs), volunteer groups, local governments, tourism associations, business associations, and other parties who also influence and have an impact on tourism activities. Third, local ownership means that the local community must be heavily involved in tourism activities so that a sense of belonging and independence from the local community will arise so that later they can develop themselves.

Community involvement in tourist destinations can be through available employment opportunities such as hotels, restaurants, etc. The relationship between local communities and business actors must also be strengthened to create such local ownership. Fourth, sustainable or environmentally friendly use of resources in a tourist destination to reduce negative impacts on the ecosystem. Tourism actors in tourism activities must be able to guarantee that these natural and artificial resources can be maintained and repaired under the criteria given. Fifth, accommodate community goals so that tourism activities can run in synergy and harmony, for example by building cooperative relationships in cultural tourism between local communities and visitors or tourists. Sixth, paying attention to the carrying capacity or land capacity which includes physical, natural, social, and cultural carrying capacity. The development and development of a tourist destination must be following the existing environmental boundaries. Planning and implementation should also be evaluated regularly for necessary improvements or adjustments. Seventh, carry out control and evaluation by compiling the basis for implementation, evaluation in tourism activities and other indicators that appear as well as limitations to measure the impact of tourism that may occur. Eighth, accountability or guidelines are required by every organizational institution and state administrator in carrying out their respective duties. The purpose of accountability is to clarify functions in government duties so that each individual can carry out their duties correctly, directly, efficiently, honestly, and wisely (Arida, 2016). Ninth, providing training for HR which aims to equip knowledge and instill business skills, and professionalism in local communities such as the concept of sustainable tourism, lodging or homestay management, and other related topics. Tenth, tourism, and tourists are closely related to the existence of a promotion system where promotion is one of the supporting factors to attract tourists in addition to being interested in the quality of tourism products. Promotion in the process of sustainable tourism development is needed to strengthen the character of tourism products, the sense of place, and the identity of tourist destinations and local communities (Subadra, 2007).

Village tourism is a tourism activity that uses village sustainability such as natural scenery, culinary, and lodging to the local community in carrying out their tourism activities (Aryadjihs, 2017). A tourist village is a village formed to empower local communities to play an active role as tourism actors who will later independently manage the potential and attractiveness of their respective village areas. The tourist village has several criteria, namely first, accessibility or access

to good tourist sites, and can be passed by various types of transportation so that it can make it easier for tourists to visit. Second, tourist destinations have natural attractions, legends, cultural arts, local food, and other characteristics that are attractive to local and foreign tourists. Third, the involvement of the village community. The community and village officials must be able to work together in giving and receiving support related to the development and implementation of the village as a tourist destination so that later tourists can get a pleasant experience. Fourth, village security and tranquility. Villages that are used as tourist destinations must be able to ensure the safety and comfort of tourists who come through the facilities and infrastructure provided. Fifth, there are adequate supporting facilities such as accommodation and lodging, telecommunications, and skilled workers in their fields. Tourism villages must have facilities that support the implementation of tourism activities. The facilities and services provided must be by the standards to achieve the satisfaction of tourists. Sixth, the climate is cool or cold. Tourist villages are often used as vacation spots for relaxation or rest from big cities, so the atmosphere and air of the tourist village are very influential on the experiences and feelings of tourists. The cool or cold climate that is not found in big cities makes tourist villages the right target for spending time alone, or with family or a partner.

This study aims to explore forms of local community involvement to support the existence of bird wing butterfly breeding and explore the potential of the area around the District of Menyambouw Manokwari as a supporter of the development of bird wing butterfly breeding tourist destinations. So that it can describe a new strategy to support the redevelopment of bird-wing butterfly breeding tourist destinations in Menyambouw Manokwari District.

RESEARCH METHODS

This research was conducted for 3 (three) months from July-September 2022. The research location is in the Birdwing Butterfly Breeding and Kwau Tourism Village, Menyambouw District, Arfak Mountains Regency, Manokwari City, West Papua Province. This study uses a descriptive qualitative approach to analyze the potential of birdwing butterfly breeding as a sustainable tourism destination in Manyambouw District, Manokwari.

Data collection techniques in this study were field observations and in-depth interviews with 3 (three) sources, namely the owner of Villa Oike, the manager of the bird-wing butterfly breeding, and the Deputy Head of Kwau Village. The data analysis technique uses a coding system to simplify data simplification. The coding system used is open coding, which is the process of dividing, analyzing, comparing, and categorizing data, axial coding is connecting categories with subcategories, then compiling and linking data, and selective coding, which is connecting other categories that require refinement and arranged into a sentence systematically.

FINDINGS

Based on interviews with the bird wing butterfly breeding manager and the owner of Villa Oike, it was found that the factors that caused the closure and termination of the operation of Villa Oike, which has a bird wing butterfly sanctuary as the main tourist attraction, include:

1. Limited areas with unpaved and slippery land roads that require special transportation to reach captivity
2. The lack of visitors makes it difficult to maintain operations because it affects cash flow
3. The affected cash flow makes the villa lack funds to create something new with little capital

Information regarding community involvement is as follows:

1. In the process of managing butterfly captivity from the beginning until now, the community has played an active role in it as a manager. When the birdwing butterfly breeding is still owned by the private sector, the local community plays an active role as the assistant manager who directly participates in maintaining both captive and birdwing butterflies. So that the public also clearly knows all the breeding processes experienced by bird-wing butterflies.
2. Kwau Tourism Village, which is the closest tourist destination to the bird wing butterfly breeding location, has taken advantage of the surrounding community in carrying out its tourism activities. Such as tour guides, welcoming guests to offering dances played by children to adults. The involvement of human resources can be an example for other tourist destinations in utilizing human resources to the fullest. This gives a lot of positive things to these tourist destinations, especially to the village economy and to reduce excessive unemployment. The deputy head of Kwau Village strongly agrees that tourism developers can utilize human resources in their tourism activities but must first provide special training due to limited education from the local community.
3. The surrounding community has lived in each tourist destination for decades so the knowledge and insight of the community towards these tourist destinations are very deep and detailed. This community involvement will greatly support the process of tourism activities.

A tourist destination around a butterfly breeding area has great potential if it is linked to a bird-wing butterfly breeding tourist destination in Menyambouw District.

1. Kwau Tourism Village
Kwau Tourism Village is the only village that has been named a tourist village by the government in the District of Menyambouw. Located 2 KM to the east of the birdwing butterfly breeding, this destination is very suitable to be paired with captive tourism. Offers views of the beautiful landscape of the Arfak Mountains and a quiet and cool atmosphere. There

are houses of residents who are uniform and neatly lined with beautiful ornamental plants in each house making the scenery around Kwau Village look very beautiful. In addition to the neat arrangement of the house, about 50 meters towards the mountain there is also the Thousand Feet House which is a traditional Papuan house with all its historical stories. The people of Kwau Village have also been trained to welcome guests and can explain all things about Kwau Village such as its history.

2. Waterfalls

This waterfall is located 2 KM to the northeast of the birdwing butterfly breeding. Being right in the forest makes this waterfall a beautiful hidden place. The sound of rushing and cold water and the silence of the forest make a long journey to be treated with the beauty that is given. However, at this time the access to the waterfall is quite steep and slippery, so it is necessary to provide paths and guidance from residents.

3. Burung Pintar Tourism Destinations

Burung Pintar Tourism Destinations is located 1 KM to the north of the birdwing butterfly breeding. It is called the smart bird because if tourists come at the right time, tourists can witness the cleverness of this bird in arranging bracelets according to color, arranging messy plates, and many other unique things given by this type of bird. The existence of this smart bird is in large captivity in the forest. So to see the action of smart birds, tourists can see it from a hole provided to look into the bird sanctuary.

4. Pintu Angin Beach

Pintu Angin Beach is located 3KM to the west of the birdwing butterfly breeding. It is called Pintu Angin Beach because the location of this beach is hit by a fairly strong but soothing wind. Pintu Angin Beach has a high appeal because it has a pier-shaped bridge that connects the land to the beach so this location is a favorite spot for tourists to take pictures or carry out pre-wedding photos. Pintu Angin Beach also provides huts that are specially provided for tourists who come to rest.

5. Mount Botak

Mount Botak is located 2.5KM to the south of the birdwing butterfly breeding. Named Mount Botak because this mountain has a little green grass so that from a distance only a layer of brown mountains can be seen. This multi-layered mountain gives the charm of the desert and the beauty of the landscape from a distance.

6. Arfak Mountains

The Arfak Mountains are 1.5KM to the north of the bird-wing butterfly breeding. This mountain was traversed by the community as a shortcut in ancient times when the local community did not yet have adequate road access to the city. So, in addition to its beautiful history, the Arfak Mountains are very suitable as a tracking route for tourists who like to exercise, especially because these mountains have been declared safe from wild animals.

Based on interviews, the proposed strategies that can support the development of bird wing butterfly breeding into sustainable tourism destinations in the Menyambouw District are as follows:

1. Looking for partners for initial capital to assist in the development and maintenance of long-abandoned facilities. Especially partners who are already involved in the world of tourism so that they can reduce the risk of failure and increase the success rate of this bird-wing butterfly breeding tourist destination.
2. Looking for partners to build a network with tourist destinations near and outside Manokwari City such as smart bird tourism destinations, Kwau Tourism Village, Pintu Angin Beach, Mount Botak, to Raja Ampat. The purpose of connecting birdwing butterfly breeding destinations with surrounding tourist destinations is to increase the attractiveness of birdwing butterfly breeding tours. The cooperation that is built between tourist destinations that have different attractions can create a complete and unique tour package because it combines tourist destinations in many aspects and their respective beauty. This concept will be different from the previous bird wing butterfly breeding tourism concept because, in this concept, tourists can visit more than 4 destinations at once in one trip. So, it will be much more efficient and challenge tourists to visit each tourist destination.
3. Offering types of educational tours by holding performances of the breeding process and growth of bird-wing butterflies, so that tourists not only come to see the collection of bird-wing butterflies but also witness and learn about the growth process and the uniqueness of each species.
4. Offering thematic events typical of each destination as additional entertainment for tourists. In addition to seeing the beauty of the captivity and the surrounding tourist destinations, tourists can rest for a while enjoying entertainment in the form of dances or typical Papuan ceremonies played by the surrounding community. So the use of human resources can provide benefits to both parties, including additional income for the local community and village.
5. Provision of special transportation and pick-up from the airport or pre-approved gathering point, to the Villa location and bird-wing butterfly breeding tourist destinations. This is to overcome transportation problems and access to difficult locations.
6. The redevelopment of this tourist destination can be carried out in line with the submission of a road repair proposal to the government because the road access to the location is a public road and is one of the responsibilities of the local government. The significant growth and development of bird-wing butterfly breeding tourist destinations will also attract attention from the public to the government, to speed up the process of submitting road access corrections.

CONCLUSION

The factors that affect the closure of the bird's wing butterfly captivity are the limitations of the area with the poor road which causes a shortage of visitors and ultimately affects cash flow resulting in a shortage of funds to maintain the operations of the captivity and villas. In addition, to examine the potential for re-development of the bird-wing butterfly captivity that has stopped, another important issue that has an impact is the involvement of the local community.

The form of community involvement has been carried out when the community helps manage the birdwing butterfly breeding, plays an active role in tourism activities in Kwau Village and the ability and knowledge of the community about the tourist destinations they live in makes the community able to be involved in future tourism activities. This will increase the income and economy of the community. In addition, as a supporter of bird wing butterfly breeding tourist destinations, the breeding can take advantage of the surrounding tourism potential, namely Kwau Tourism Village, Smart Bird Destinations, Waterfalls, Pintu Angin Beach, Botak Mountain, and Arfak Mountains by building a network and tour packages.

Therefore, the bird-wing butterfly breeding in Menyambouw District still has great potential to be rebuilt into a sustainable tourist destination with a strategy that has been prepared, namely building partnerships for capital and building networks between tourist destinations, offering educational tours, and holding events. thematic, providing transportation and special pick-ups, as well as submitting road repair proposals to local governments.

REFERENCES

- ANP. (2015). Kupu-Kupu Sayap Burung Surga, Serangga "Cendrawasih" dari Timur. Greeners.Co. 9 Juli. <https://www.greeners.co/flora-fauna/kupu-kupu-sayap-burung-surga-serangga-cendrawasih-dari-timur/>
- Arida, I. N. S. (2016). Buku Ajar Pariwisata Berkelanjutan.
- aryadjihs. (2017). Apa Beda Desa Wisata dan Wisata Desa - Berdesa. Berdesa.Com. <https://www.berdesa.com/apa-beda-desa-wisata-dan-wisata-desa/>
- Iriyanti, M., & Azis, A. M. (2012). Barrier Factors and Potential Solutions for Indonesian SMEs. *Procedia Economics and Finance*, 4(Icsmed), 3–12. [https://doi.org/10.1016/s2212-5671\(12\)00315-2](https://doi.org/10.1016/s2212-5671(12)00315-2)
- Kemendikbud/Baparekraf RI. (2021). Destinasi Wisata Berbasis Sustainable Tourism di Indonesia. 22 November. <https://kemendikbud.go.id/ragam-pariwisata/Destinasi-Wisata-Berbasis-Sustainable-Tourism-di-Indonesia>
- Mengenal Pemahaman Definisi Apa Itu Ekowisata. (2021). Traveloka.Com. <https://www.traveloka.com/id-id/explore/destination/mengenal-pemahaman-definisi-apa-itu-ekowisata-acc/109957>
- Patty, R. D. (2021). Mengenal Konservasi. <https://bbksda-papuarat.com/mengenal-konservasi/>

- Prinada, Y. (2020). Apa Itu Konservasi Alam: Definisi, Tujuan, Sejarah, Contoh Kawasan. 30 Desember. <https://tirto.id/apa-itu-konservasi-alam-definisi-tujuan-sejarah-contoh-kawasan-f8pk>
- Subadra, I. N. (2007). Bali Tourism Watch: Prinsip-Prinsip Pembangunan Pariwisata Berkelanjutan. 6 April. <https://subadra.wordpress.com/2007/04/06/bali-tourism-watch-prinsip-prinsip-pembangunan-pariwisata-berkelanjutan/>
- Sutrisno, E. (2021). Indonesia.go.id - Mengenal Kupu-Kupu Malam Papua. Indonesia.Go.Id. <https://indonesia.go.id/kategori/keanekaragaman-hayati/2589/mengenal-kupu-kupu-malam-papua>
- Warikar, E. L., Ramandey, E. R. P. F., & Maury, H. K. (2019). Analisis Dimorfisme Kupu-Kupu Sayap Burung (Ornithoptera sp.) Endemik Papua. Jurnal Biologi Papua, 11(1), 1–7. <https://doi.org/10.31957/jbp.634>
- WWF-Indonesia, D. K. dan P. dan. (2009). Prinsip dan Kriteria Ekowisata Berbasis Masyarakat. Ekowisata, 1–9.