

THE IMPACT OF LOCAL COMMUNITY PARTICIPATION AND THE POTENTIAL SUSTAINABILITY OF BESTARIA ECOTOURISM

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ABSTRACT

Community-based ecotourism is recognised for its economic benefits to local communities. This study focuses on Bestaria Ecotourism in Kg. Bestaria Telupid, approximately 23 km or 20 minutes from Pekan Telupid, is renowned for bird watching of the Bornean Peacock Pheasant (*Polyplectron schleiermacheri*), a species once thought extinct in Sabah until rediscovered by a local guide. This research evaluates community participation in Bestaria Ecotourism and its impact on local livelihoods, as well as the potential for sustaining and expanding ecotourism products and services. A mixed-methods approach was employed, incorporating qualitative focus group discussion (FGD) using SWOT (Strength, Weakness, Opportunity, Threat) analysis and quantitative method by using a household (HH) survey. Currently, Bestaria Ecotourism primarily attracts foreign tourists, with limited local visitor engagement. The findings indicate that community involvement in ecotourism provides significant economic benefits and enhances leadership, tour guiding, and communication skills. Additionally, the area demonstrates substantial potential for expanding ecotourism products and services, particularly through facility improvements. The community works closely with the Sabah Forestry Department. The community helps protect the forest as it is their main attraction for their ecotourism activity and in turn the department provides support in terms of expertise, training and courses and promotion of the site. The collaboration between the community and department is a good example of joint forest management. The findings of this research can be used as a reference for the community to further improve their ecotourism activity.

Keywords: Local Community, Ecotourism, Bornean Pheasant Peacock, SWOT Analysis, Economic Benefits, Ulu Telupid Forest Reserve

1.0 INTRODUCTION

Engaging local communities in ecotourism activities fosters a sense of ownership over natural resources and enhances economic benefits through job opportunities and improved living standards (Scheyvens, 1999). Furthermore, active participation in ecotourism can lead to greater environmental awareness and collective conservation efforts (Torres & Kline, 2006). This research paper aims to analyse community participation in Bestaria Ecotourism and its impact on local livelihoods, as well as the potential for sustaining and expanding ecotourism products and services. By evaluating the social and economic dimensions of community involvement, the study seeks to contribute to the broader discourse on community-based tourism and its role in promoting ecological preservation while enhancing the quality of life for local populations. Understanding these dynamics is essential for developing effective strategies that ensure the long-term viability of ecotourism in Bestaria and similar communities.

2.0 METHODOLOGY

2.1 Study Site

Kampung Bestaria is in Telupid and is approximately 23 km away from Telupid town. The village was originally named "Best Area" because it was known for its good environment and friendly people, but later became known as "Bestaria". The village has a population ranging from 400 to 500 people, with approximately 40 houses and around 60 families, with 2 to 3 families living in one house. The community relies on gravity-fed water pipes sourced from Ulu Telupid Forest Reserve and collects forest resources such as wild vegetables and rattan to make handicrafts. The villagers' main sources of income include revenue from oil palm cultivation, rubber tapping, and selling vegetables. In 2019, a local villager found the rare sightings of an endemic bird in Ulu Telupid Forest Reserve. After consulting a bird expert, the bird was confirmed to be the Bornean Peacock Pheasant (*Polyplectron*

schleiermacheri). This remarkable bird, endemic to Borneo's rainforests, is famous for its vibrant plumage and elaborate courtship displays. This finding led to the formation of Bestaria Ecotourism in September 2022 which currently consists of 15 members and are local villagers from Kampung Bestaria. Bestaria Ecotourism focuses on birding tourism and manages the site where the Bornean Peacock Pheasant (*Polyplectron schleiermacheri*) is actively found. Since the site is within the Ulu Telupid Forest Reserve, Bestaria Ecotourism and the Telupid District Forestry Office had reached an agreement and formed a joint forest management for the area. The Telupid District Forestry Office issue a permit for the community to enter the area freely and conduct the ecotourism activity with a minimum fee, and in turn, the community helps protect the forest. The Telupid District Forestry Office also provides support in terms of expertise, training and courses and promotion of the site. The collaboration between the community and the department is a good example of joint forest management.

2.2 Mixed-method Approach

A mixed-method approach was utilised, combining qualitative methods, which are the focus group discussions (FGD), and quantitative methods through a household (HH) survey. This method is adapted from the ASEAN Swiss Partnership on Social Forestry and Climate Change (ASFCC, 2018) method. According to Schoonenboom and Johnson (2017), combining qualitative and quantitative data adds depth to the research and strengthens the main conclusions of the study. For the HH Survey, the sample was chosen through independent random sampling, involving 33 respondents. This study gathered data from community leaders and local communities involved in ecotourism activities. The Focus Group Discussion (FGD) is a qualitative research method that unites a diverse group of individuals to discuss a specific topic. This approach effectively collects data on the village's history, socio-economic activities, land use, the impact of ecotourism, and the potential sustainability of Bestaria Ecotourism, which was analysed using a SWOT (Strength, Weakness, Opportunity, Threats) framework. Community leaders are recognised as vital to the development of tourism in local areas (Aref & Ma'rof, 2009a; Moscardo, 2008).

3.0 RESULTS AND DISCUSSION

3.1 Socio-demographic Characteristics

Table 1 presents the socio-demographic profile of the study site, highlighting the highest frequency percentages for each variable. Regarding gender, the majority of respondents were male (64%), while 36% were female. Most respondents were originally from the Ranau District (39%), 33% were from the village, and the remaining respondents came from various districts across Sabah. Most participants had lived in the village for more than 16 years. The age distribution indicated that the population was predominantly between 31 and 40 years old and 41 to 50 years old, with each age group comprising 27% of the respondents. A significant majority of the respondents were married (85%), while the remainder were single. The average household size ranged from 4 to 6 individuals. In terms of ethnic diversity, the majority of respondents identified as Dusun (91%), followed by Bajau, Murut, and Sungai, each representing 3%. Educational qualification was primarily at the secondary school level (73%), followed by primary school (15%), diploma holders (9%), and 3% of respondents without formal education. The main occupation within the community was farming (52%), followed by housewives (21%), tourism-related jobs (15%), and other occupations, including employment in oil palm companies and security roles at a primary school. Additionally, many community members participated in tourism activities as an alternative source of income, with 42% of respondents earning between RM600 and RM1199 monthly.

Table 1: Socio-demographic profile of respondents

		Total	Percentage (%)
Gender	Male	21	64%
	Female	12	36%
Age	< 20 years old	2	6%
	21 - 30 years old	2	6%
	31 - 40 years old	9	27%
	41 - 50 years old	9	27%

	> 51 years old	11	33%
Race	Dusun	30	91%
	Bajau	1	3%
	Murut	1	3%
	Sungai	1	3%
Marital Status	Single	5	15%
	Married	28	85%
Origin	Originally from the village	10	30%
	Ranau	13	39%
	Other districts	10	30%
Residence Period	< 6 years	6	18%
	6 - 10 years	4	12%
	11 - 15 years	2	6%
	> 16 years	21	64%
Education Level	Primary School	5	15%
	Secondary School	24	73%
	Diploma	3	9%
	No School	1	3%
Main Occupation	Tourism	5	15%
	Farmer	17	52%
	Housewives	7	21%
	Others	4	12%
Monthly Net Income (RM)	< RM600	7	21%
	RM600 - RM1199	14	42%
	RM1200 - RM1799	8	24%
	RM1800 - RM2399	2	6%
	RM2400 - 2999	1	3%
	> RM3000	1	3%
Household Size (People)	1 - 3	5	15%
	4 - 6	20	61%
	7 - 9	8	24%

4.3 Impact of ecotourism activity to the local community

A total of 27 (81.8%) out of 33 respondents stated their involvement in the Bestaria Ecotourism. Figure 1 shows that porters represent the highest level of involvement at 20.7%, followed by committee members and tour guides, both at 17.2%. Porter services are crucial for tourists, especially those engaged in bird photography, as many visitors bring heavy camera equipment, creating a demand for porters who provide both practical support and job opportunities for the local community (Patterson & Pan, 2010). Other roles, such as material supplier and handicraft, show moderate involvement at 10.3% each, while reception and administration and high committee members account for 6.9% each. Notably, participation is relatively low in roles such as food and beverage service, homestay management, and maintenance, with each accounting for only 3.4% of overall involvement. Since these services are newly established, there are still only a few community members engaged in these areas.

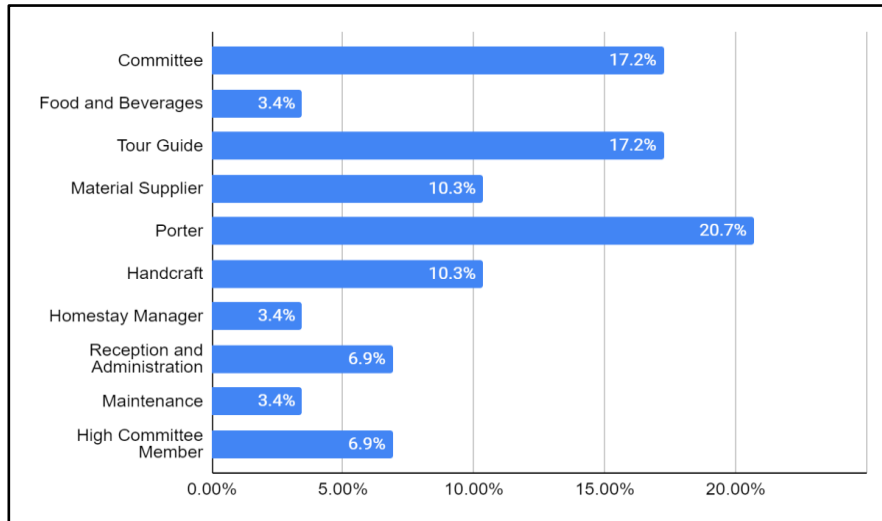


Figure 1. Type of Local Community Involvement in Ecotourism

Figure 2 shows the positive effects of Bestaria Ecotourism on the local community, assessed across five categories using a 5-point Likert scale and is presented based on the weighted average. Most respondents strongly agreed with all the five positive impacts from their involvement in Bestaria Ecotourism. The highest scored impact was that the ecotourism activity provides job opportunities (4.88). This shows the role of ecotourism in creating employment for local communities, particularly through birding ecotourism, which employs local guides, service providers, and administrative staff. This increase in jobs correlates closely with the score of 4.76 for improving living standards and income, indicating that greater job opportunities enhance the financial well-being of the community. Mason and Cheyne (2000) found that communities engaged in sustainable tourism often experience improved economic conditions. The third most important impact is that the ecotourism activity improves the village environment, and received a score of 4.55, highlighting the community's appreciation for the positive impact of ecotourism on their surroundings. According to González and Sánchez (2017), ecotourism can promote environmental conservation efforts within local communities. Living near forests, the community collaborates to protect the environment and preserve bird habitats essential for ecotourism. Improved communication skills, with a score of 4.30, reflect a significant benefit gained from tourism activities involving international visitors, fostering cultural exchange and interaction between the local community and tourists. According to Bramwell and Lane (2011), such interactions can enhance mutual understanding and respect between cultures, further benefiting the local community.

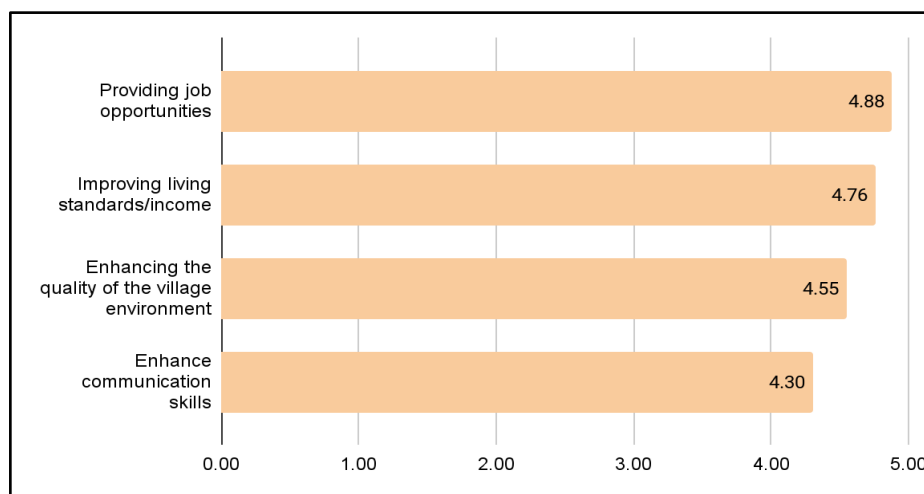


Figure 2. Positive Impact of Bestaria Ecotourism on the local community

The focus group discussion (FGD) included key committee members of the ecotourism initiative. Each participant shared their experiences before and after becoming involved in ecotourism, as detailed in Table 2.

Table 2. Positive Impact of Ecotourism activity on the local community

Committee Member	Positive Impact of Ecotourism activity on the local community
President (Hayden, 2024)	Enhanced livelihood and improved problem-solving skills. Acquired valuable knowledge in building an economic ecosystem and developed effective communication and interaction techniques.
Vice President (Yakub, 2024)	Before participating in Bestaria Ecotourism, relied solely on farming as the only source of income. Engaging in ecotourism has significantly improved life conditions. Have additional income to support the family and acquired new experiences and skills by working as a porter.
Secretary (Ezra, 2024)	Learned how to effectively communicate with others to promote the tourism packages. Realized ability to become a guide.
Treasurer (Rona, 2024)	Gained valuable financial management skills, enhanced ability to budget and track expenditures effectively. Developed a deeper understanding of fundraising strategies.
Committee Member - Head of village (Lanang, 2024)	Significantly benefited the youth in the village. Indirectly promoted their village, attracting visitors from various countries. Increased revenue in sale of goods in their stalls. A positive economic impact on the village.
Committee Member - Food and Beverage (Aniza, 2024)	Able to grow food and beverage business significantly. Previously, income was moderate, however has increase in earnings when involved in Bestaria Ecotourism. Able to support family financially and enhanced communication skills when interacting with tourists.
Committee Member - Transportation (Oswald, 2024)	Village is constantly visited by tourists from various countries. This exposure has broadened perspectives and gave motivation to implement initiatives aimed at increasing the number of visitors. Additionally, it has helped boost financial income and encouraged a more open-minded way of thinking.

4.4 SWOT Analysis

A SWOT analysis is an effective tool for assessing the potential of Bestaria Ecotourism by examining both internal factors, strengths and weaknesses, and external factors, opportunities, and threats, associated with this tourist destination. It offers a detailed perspective on the current tourism landscape in Bestaria Ecotourism and aids in devising strategies to enhance tourism potential while addressing any challenges that may occur (Ghazali et al., 2021; Chen & Chen, 2018). Table 3 shows the SWOT analysis for Bestaria Ecotourism.

Table 3: SWOT Analysis

Strength	Weakness	Opportunity	Threat
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Bestaria Ecotourism	<ul style="list-style-type: none"> ● Main attraction - Bornean Peacock Pheasant (<i>Polyplectron schleiermacheri</i>) ● Strong teamwork ● Tagal program ● Other attraction – waterfall, flora, and fauna ● Variety of services available (porter, transportation, food and beverage, and guide) ● Good relationship with Sabah Forestry Department ● Active participation 	<ul style="list-style-type: none"> ● Seasonal decline for international tourists ● Low number of local visitors ● Needs further improvement on facilities ● Lack of English-speaking guides ● Needs further training in terms of skills ● Lack of safety equipment 	<ul style="list-style-type: none"> ● Potential trails that can be further explored ● Wide variety of bird species ● Plans to formalize MOU with Sabah Forestry Department ● Network with other birders association ● Adding accommodation into tour package ● Marketing via social media ● first community-led birding site 	<ul style="list-style-type: none"> ● Uncontrolled tourist behaviour ● Climatic events ● Competition from neighbouring village ● Division of revenue to members and community
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4.5 Potential Sustainability

In the next five years, the ecotourism initiative at Bestaria Ecotourism holds significant potential for sustainable growth by leveraging its unique attractions and strong community involvement. One of the key strategies includes enhancing infrastructure and facilities, such as upgrading village aesthetics and tourist trails, constructing homestays, and establishing food stalls and craft shops to promote local culture and generate income (Bramwell & Lane, 2011). Training programs in tourism management, guiding, and handicraft making will empower community members and enhance service quality (Aref & Ma'rof, 2008). Collaborating with government agencies for infrastructure support, along with engaging NGOs and local leaders, will foster sustainable development (González & Sánchez, 2017). Increasing visibility through social media and international promotion, combined with safety training for porters and infrastructure improvements like stair-like pathways, will enhance the overall tourist experience (Mason & Cheyne, 2000). Additionally, the community should focus on creating detailed proposals to secure funding from various sources (Vogt, 2007). This holistic approach not only aims to boost economic growth and tourism but also emphasises the conservation of critically endangered species in the area, solidifying Bestaria's role as a vital global ecotourism destination. With strong collaboration and government support, Bestaria Ecotourism can thrive sustainably, benefiting both the local economy and biodiversity conservation efforts.

5.0 CONCLUSIONS

In conclusion, the Bestaria Ecotourism initiative demonstrates significant potential for positively impacting the local community through increased job opportunities and enhanced living standards. With the majority of community members actively participating in various roles, the initiative fosters collaboration and cultural exchange while promoting environmental conservation. Although challenges such as seasonal tourist fluctuations and limited facilities exist, opportunities for growth through improved infrastructure and training programs present a hopeful future. By leveraging its unique attractions and community involvement, Bestaria can achieve sustainable tourism growth, benefiting both the local economy and biodiversity preservation. Continued support from government and local stakeholders will be crucial in realising this potential and ensuring the long-term success of the ecotourism initiative.

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APPENDIX I



Plate 1. A & B. Birdwatching Hiding Spot - Hiding spots for birdwatching keep observers concealed and comfortable, allowing them to view birds without scaring them away.

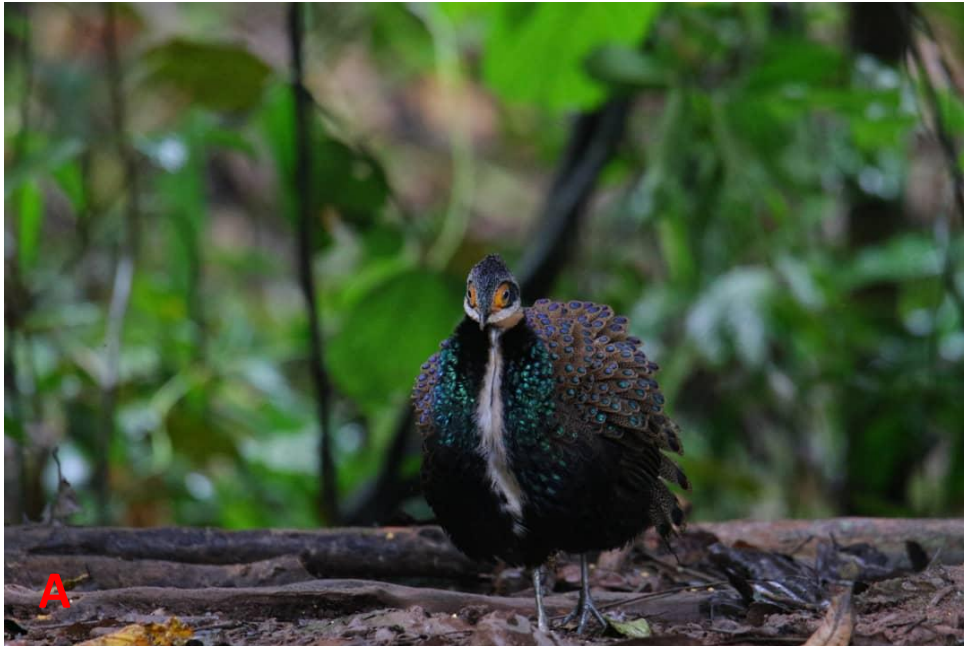


Plate 3. A & B. Photos of Bornean Peacock Pheasant (*Polyplectron schleiermacheri*) captured by one of the Committee Member, Elfean Jahanin.



Plate 3. A. The FGD session with the members of the Bestaria Ecotourism. **B.** The team of researchers after a hike to the bird hide in Ulu Telupid Forest Reserve.