

The Perceived Impacts of Ecotourism at Gunung Senyum: Local Community Perspectives

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Abstract— Ecotourism is one of the fastest growing segments in tourism industry. Ecotourism has proven to benefits many communities, yet the benefits are valued differently by different groups of community. Therefore, the aim of this paper is to examine perceptions of local community in Pahang towards ecotourism development in their area. Understanding residents' perception is very important for planner to devise effective management strategies for ecotourism development. This study analyses local perceptions towards ecotourism impacts from social, environmental and economic perspectives. A simple random sampling was employed for this study with a total of 102 residents participated. Overall, findings revealed local community held positive perceptions towards ecotourism development in the area. Thus, the state government and other stakeholders should embrace this opportunity in planning appropriate management strategies to boost ecotourism industry because it is argued the more positive perceptions towards tourism impacts hold by locals, the stronger is their support.

Keywords— community, ecotourism, perception, economic impacts, social impacts, environmental impacts.

I. INTRODUCTION

TOURISM has long been recognised in contributing to the costs of conservation and providing economic opportunities for communities living adjacent to parks and protected area, yet tourism is also known for its potential to disrupt, disturb or do damage to natural habitats and local communities, especially in rural settings.

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West and Carrier [1] mentioned local communities almost always pay the social and environmental costs of conventional form of tourism, but they seldom been given opportunity to get involved fairly in the benefits. Due to negative impacts of tourism, alternatives like ecotourism, is perhaps most frequently opted for its potential. By contrast, ecotourism is designed to channel greater benefits directly to communities [2].

Ecotourism, a niche tourism market, is considered to be one of the fastest growing segments of the tourism industry. In fact, it also has been recognized with the power to sustain rural livelihoods [3], catalyse new development [4], renew cultural

pride [5], empower local people [6] and protect biodiversity [7, 8].

According to the World Tourism Organisation, ecotourism is an all-nature-based form of tourism with traditional cultures inhabiting natural areas; also include educational content; is typically involve small groups of tourists organised by small locally owned firms; minimizes the potential negative impact of tourism on the natural and cultural environment; increase awareness of biodiversity conservation principles among locals and tourists; and generates economic benefits for the local community (job creation and revenue).

Benefits derived from ecotourism are most prominently been discussed by conservationists. They often described ecotourism as incentives for residents to protect wildlife, forests, rivers and other attractions tourists pay to see [9]. Bovarnick and Gupta [10] argue that locals are likely to gain incentives for protecting natural resources, but only if they receive a good portion of these benefits. One of the factors adding to the difficulties of incentives driven programs is that the same incentive or benefit is valued differently by different groups of a community [11]. To address this issue, thus, it is important to examine local perceptions towards ecotourism to further comprehend the situation.

Therefore, the present study explores the economic, social, environmental impacts of ecotourism development in the rural area at Gunung Senyum, Pahang. This is accomplished through an analysis of local community's perceptions. The study will help the government and other tourism stakeholders to understand local community's aspiration, in which can be integrated in planning tourism development.

II. LITERATURE REVIEW

Studies on perceptions and attitudes of local residents towards tourism development have been comprehensively covered by many researchers. Tourism research has proven that tourism creates job opportunities, tourism revenues, improvements of infrastructures and foreign exchanges. Undoubtedly, it is through perceptions of tourism impacts that studies on local attitudes are usually based on.

Perception can be refer as "attitudes" [12], "residents' opinions" [13], or "reactions" [14]. According to Andriotis [15], local communities' perceptions of the cost and benefits of tourism is the main factor in tourist satisfaction and the most important part for the success of the tourism industry. Research documenting residents' perceptions towards negative and positive impacts of tourism on host communities is well documented [16-19].

Perdue, Long and Allen [20] have found as level of tourism in a community increased, residents' perceived less tourism impact. In addition, those who received benefit from tourism have been shown to be more likely to support the development and to view the costs of tourism as little than other residents do and so may favor its expansion at the expense of other stakeholder interests [18, 19, 21]. Residents who at first had

high expectations for tourism development could lose feelings of support when their expectations for economic development are not met and perceive that environmental impacts exceed anticipated levels [22].

To date, precise definition terminology of 'ecotourism' is still debatable. Often the concept of sustainable tourism and ecotourism is used interchangeably. It was said that the term 'ecotourism' was first coined by Ceballos-Lascurain about two decades ago [9]. Nevertheless, according to Weaver and Lawton [23] the term has come to near-consensus and should satisfy three core criteria, i.e. (1) attractions should be nature-based, 2) attraction should focus on learning and education and 3) sustainability in economic, socio cultural and ecological should be associated in the principles and practices of product management. Thus, based on this definition, ecotourism in this paper is to reflect the above mentioned key principles. Since many impacts, costs and benefits of tourism are the same as those for ecotourism in the study area, the two terms are used interchangeable throughout the paper.

Ecotourism is seen as a tool for preservation of natural resources. It is argued that ecotourism has confirmed to be an effective environmental conservation tool in many cases [8]. It is considered to be friendly alternative to other economic uses of natural resources. A study by Jones [24] at Tumani Tenda suggested that ecotourism facilitates collective group action whereby the community adhered to correct principles of environmental behaviour and enhancing trust which led to sustainably manage natural resources. Other empirical works show economic benefits accrued from ecotourism can facilitate residents' pro environmental behaviours in such that if local communities perceived they acquire considerable benefits through ecotourism development, they will depict a more positive attitude towards protecting the local natural environment [25].

Local residents may receive a variety of benefits accrue from protection of resources. Local can benefit from becoming hosts for ecotourists. Communities can receive economic, infrastructural and social benefits if they participating in ecotourism. Local community involved in business such as owned family hotels, operated souvenirs shop and employed in related tourism businesses among the results showed in a study of community in Jiuzhaghou Natural Reserve China [26]. Research suggests that it is through economic gained that communities change their perspective on the environment and their commitment to the environment and conservation [27, 28].

Ecotourism industry has been recognised to benefit local communities not only to support development of the industry but also to accept more than economic benefits [29]. Ecotourism benefits go beyond open up new employment sector and increase income of local community, in that employment opportunities improved social conditions and local community can be empowered in decision making process. Local knowledge and experience, combined with an

understanding of tourism development, can be used to empower local people to take part in tourism effectively [30]. Similarly, Nyaupane & Poudel [31] highlighted ecotourism generates incentives such as improved infrastructures, health facilities, awareness and education from tourism development and these in turn foster positive attitudes among local communities towards conservation.

III. METHODOLOGY

A. The Study Area

Gunung Senyum Recreational Forest located on the Pahang River bank about 40km away from Temerloh town in Pahang and 20km from Bandar Tun Razak Jengka, was officially established and notified in 1990. It is an amenity forest, part of Jengka Forest Reserve and surrounded by oil palm plantation. Gunung Senyum amenity forest comprises of limestone mountains which known as Gunung Senyum (216 hectares) and Gunung Jebak Puyuh (95.9 hectares), the former being a popular spot to tourist and researchers. Geological structure of rock and soil types found here is limestone hill which is estimated to be more than 400 million years and the eastern lowlands nearby is made up of mudstone and shale which more than 300 years old.

There are a total of 19 caves found at Gunung Senyum with special and distinctive appearances. Outdoor activities like jungle trekking, bird watching, picnicking, cave exploring, rock climbing, camping and research are well known in this area. Its unique landscapes invite explorers to enduring journeys in trekking the undulating mysterious caves. Day trips and multiple day tours by city residents and foreign tourists are popular. Adjacent to the Gunung Senyum is Jengka 25 with inhabited by 152 local households in which this community was impacted directly from ecotourism development.

B. Sampling and Data Collection

The target population consisted of permanent residents of Jengka 25 (residing for more than one year) who are 18 years old or older. Households were randomly sampled based on house number. A simple random sampling was used. Data were collected using a structured self-administered questionnaire that was hand delivered to 109 households. A total of 109 households were served as representative respondents for the total population of 152 households. As people from the same household often hold similar view, only one person in each household was invited to participate. The response rate was 94% (102 households out of 109 approached, agreed to participate). Of the remaining 43 respondents, they declined to participate in the study and some of them had unknown whereabouts for example, the house is left or the host has moved.

C. Questionnaire Development

The questionnaire comprised of two main sections. The first section is to examine residents' profile. Then the second section is to determine perceptions of ecotourism development held by residents. The questionnaire items were adopted from previous studies [9, 20, 32, 33] including additional items and/or rewording some of the items in order to suit with the study setting. The Likert scale using five point ranging from 1 strongly disagree to 5 strongly agree as to measure point of agreement from the respondents.

D. Data Analysis

Statistical Package for the Social Science (SPSS) has been used in analysing the survey data. Descriptive statistics such as Mean (M) and Standard Deviation (SD) were employed for each item to identify the trend of community perceptions towards these items.

IV. RESULTS AND DISCUSSIONS

A. Profile of Community

The results from demographic section depicted that from the 102 households respondents surveyed, 46% were females and 54% were males. A majority of respondents were aged 40-59 years of age, comprising approximately 79% of total respondents. A large percentage, 93.1% of the respondents had lived in the area 30 years or less. Moreover, the largest percentage of respondents, 67.6% of respondents had resided at Jengka 25, between 21 to 30 years. This may indicate that respondents were generally long time members of the local community. A very small percentage of the respondents 8.8% had tertiary education. Majority of respondents 56.9% had secondary education, 30.4% had primary education, 30.4% had primary education and 3.9% had not attended school. Apparently, it shows that most respondents were not well educated in a formal sense.

B. Reliability analysis

To assess the reliability of the measurement items of perceived impacts, indicator of internal consistency Cronbach's alpha coefficient was applied. The Cronbach's alpha for economic was 0.51, social 0.69 and environment 0.32 respectively. The low values of Cronbach's alpha were most likely because of the items for each of perceived impacts were lower than ten for example economic have 7 items, social 8 items and environment 5 items. Pallant [34] asserted that Cronbach alpha values are quite sensitive to short scales and it is common to find quite low value if the scales have fewer than ten items.

C. Description of Individual Measurement Items of Perceived Impacts

Table 1 illustrates the means, standard deviations values for each item. The higher the mean score, the stronger is the agreement. The interpretation of mean values employed in this study followed suggestion from Tosun [32] in which variables' mean values between 1 and 2.4 showed negative perceptions, 2.5 and 3.4 neutral, and 3.5 and 5 positive. In regards to perceived impacts, respondents were asked to rate 5 point Likert scale.

TABLE 1
PERCEIVED IMPACTS OF ECOTOURISM

Impact Area and Variables	Mean	Standard Deviation
Economy Impacts Grand Mean	3.47	
1. Ecotourism has created more jobs for local people	3.45	1.32
2. Ecotourism has given economic benefits to a few local residents only	3.14	1.20
3. Ecotourism provides a promising future in terms of economic benefits for local people	4.28	0.85
4. Ecotourism has created jobs for women	3.08	1.30
5. Ecotourism reduces involvement in other jobs or traditional jobs	2.44	1.27
6. Ecotourism encourages local to involve in tourism industry	3.90	1.02
7. Ecotourism provides economic benefits to local residents and small businesses	4.02	0.08
Environment Impacts Grand Mean	3.08	
8. Ecotourism improves local people's knowledge on conserving and preserving natural resources	4.28	0.67
9. Ecotourism improves local people's understanding on natural heritage	4.23	0.74
10. Ecotourism has resulted in pollution and vandalism	2.19	1.32
11. Ecotourism reduces provisioning area for agricultural	2.40	1.37
12. Facilities provided at Gunung Senyum is at odd with natural area	2.30	1.30
Social Impacts Grand Mean	3.94	
13. I can interact better with people when participating in ecotourism	3.76	1.19
14. I am proud of natural and cultural resources here in comparison to other places	4.44	0.68
15. Ecotourism improves cross cultural relationship	4.02	1.01
16. Ecotourism conserve and preserve local cultural values	4.17	0.71
17. Ecotourism activities enhance local community networking	3.69	1.19
18. Ecotourism has resulted in crime rate such as drug abuse and indecency	3.25	1.52
19. Ecotourism provides opportunity to learn new skills	3.73	1.02
20. I support ecotourism at Gunung Senyum	4.53	0.56
<i>Grand Mean of twenty Impact Items</i>	<i>3.50</i>	

Notes: Scale values range from 1 (Strongly Disagree) to 5 (Strongly Agree); the higher the Mean (M) score, the stronger is the agreement.

Descriptively for social impacts, local community had a high agreement with statement they feel proud of their natural and cultural resources (M=4.44). The result conformed to Nyaupane and Poudel [31] who describe external recognition and appreciation towards the unique cultural, natural resources

and traditional knowledge of one community can boost community self esteem and these call for psychological power. The community also believe ecotourism play a role in conserving local cultural values (M=4.17) and improving cross cultural relations (M=4.02). Local community is able to conserve cultural values when entertaining tourists during their visit to the homestay such as traditional performances, wedding event, and served tourists with local cuisine. Meanwhile, local residents seemed to have modest agreement with other social impact statements such as, if they can interact better with people through participation in ecotourism, ecotourism provides opportunity to learn new skills and ecotourism activities enhance local community networking. However, the respondents appeared to have neutral perception i.e. neither agree nor disagree if ecotourism establishment has resulted in crime rate for example increase in drug abuse and indecency (M=3.25).

The participants positively perceived ecotourism provides a promising future economic for local (M=4.28) which bring benefits to local residents and small businesses (M=4.02). Besides, they showed modest agreement that ecotourism encourages local to involve in tourism industry and created more jobs for local. This can be evidently seen when few of residents involve in providing homestay, catering and take part in traditional culture performances. This result is also supported by Liu [35], suggested economic benefits have a positive impact on residents' behavior. Whereas respondents had perceived neutral with statement if ecotourism has given economic benefits to a few local only (M=3.14) and ecotourism created more jobs for women (M=3.08) respectively. However, the respondents showed disagreement with statement if ecotourism reduces involvement in other jobs or traditional jobs (M=2.44). There is evidence to support respondents' disagreement with the above mentioned statement since local community was able to do their job at palm oil plantation as usual even though some of them involved in hosting the tourists.

In terms of local community views on environment impacts, respondents believed that ecotourism improves local peoples' awareness on conserving and preserving natural resources (M=4.28) as well as improves their understanding on natural heritage (M=4.23). These findings as confirmed in previous research study done by Udaya Sekhar [36] showed a correlation between benefits from wildlife tourism and support for protected area conservation, implying that benefits impact people's attitudes towards the environment and conservation. However, residents' had disagreement on matters such as ecotourism has resulted in pollution and vandalism at Gunung Senyum (M=2.19), ecotourism reduces provisioning area for agricultural (M=2.40) and facilities provided at Gunung Senyum were at odd with natural area (M=2.30).

Interestingly, residents overall attitudes towards ecotourism impacts at Gunung Senyum showed a positive perception of the industry. The grand mean of the 20 impact items was 3.50.

On average, social impacts and economic impacts were perceived as most positive (overall M=3.94 and 3.47 respectively) followed by environmental impacts) overall M=3.08). Despite local believed ecotourism had given positive impacts, the grand mean of environment impact was the lowest (M=3.08). Evidently, local community at Jengka 25 had neutral perceptions i.e. was to neither oppose nor favor environmental impacts on them. This implies the local have good perceptions towards ecotourism development in their area.

V.CONCLUSION

The results of the study add a community perspective into ecotourism development. It showed that local community at Jengka 25 has given positive feedback in view of establishment of ecotourism at Gunung Senyum. Gunung Senyum could attract more tourists to visit the place and indirectly gives benefits to local community. The results also revealed local community agreed that ecotourism generated income for them. This result was consistent with previous study related to ecotourism perceptions of economic impacts [37, 38].

In short, positive perceptions among locals definitely will benefit the state government because most likely locals will be motivating to support and engage in ecotourism development. Undoubtedly, when residents' perceived more positive tourism impacts, they demonstrate stronger support to local tourism [39]. Therefore, the government should encourage locals to participate more actively in ecotourism.

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