

Assessment on Local Community Perception of Gunung Stong State Park and its Role in Income from Sustainable Tourism

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Abstract

Tourism is one of the important sectors in giving a good economic impact for the State of Kelantan. Gunung Stong State Park (GSSP) is one of them due to the presence of second highest waterfall in Southeast Asia, Jelawang Waterfall. This study is to identify the benefits received by local communities and to determine the role of GSSP in providing income from sustainable tourism. Results show that local communities receive benefits in term of road maintenance, exposure to tourists, improvement of infrastructure quality, enhancement of recreational activities and revenue potential. Result also indicates GSSP play roles in income from sustainable tourism and local communities have high awareness on the importance of GSSP. Entrepreneurship plays a crucial to helps and improves the quality of life of local communities.

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1. Introduction

Malaysia is a tropical country and is well-known with the large range of habitat and species. Habitats such as Lowland Dipterocarp, Hill Dipterocarp, Upper Dipterocarp, Lower Montane, Upper Montane, Peat Swamp and Mangrove Forests causes Malaysia to be one of the twelve countries that have extensive areas of valuable natural tropical rainforest of complex ecosystems (Kamaruzaman & Dahlan, 2008). Its diversity however provides challenges in managing Malaysia such as climate change and extensive land-conversion that threatens them. Forests, once formerly extensive, are now reduced to islands surrounded by agriculture, roads and built up environments. In recent years, issues such as forests conversions, pollution, and species extinction, was put biodiversity conservation to the fore-front. Biodiversity conservation is not only emphasize on species conservation, but also, in the long term affects human as well, because the interconnectedness due to food resources, gene-stocks and maintenance of natural resources.

Apart from conservation of biodiversity and natural resources, another function of protected area is to the local community from revenues derived from tourism. This is a part of the strategy to obtain support from the local community towards conservation (Tewodros & Afework, 2014). This study is to identify the role of a protected area in providing sustainable benefits to the local community of Dabong and Jelawang. The protected area that is used as an indicator is in near Gunung Stong

State Park, Dabong, Kelantan. Gunung Stong State Park (GSSP) is a well-established nature tourism destination in Kelantan due to its location and physical factors and is one of the most popular nature tourism destinations in Malaysia (Azizan et al., 2011). Generally, most of the nature tourism destinations are normally in rural or wilderness areas but there need to be basic, but sufficient facilities provided to maintain the natural value and to attract more visitors. In the case of GSSP, the development around the place is considered at a very low stage and categorized as rural area but this is not a negative factor, as nature tourists do not demand high-end facilities and is part of the experience. Benefits from tourists spending while visiting GSSP is an opportunity for the locals to improve their livelihood, and this will in turn provide support for sustainable tourism in a protected area. This study was carried out to identify the benefits received by local communities through tourism in GSSP, to determine the role of GSSP in providing income from sustainable tourism and to know the perception of local community at GSSP area towards sustainable tourism in GSSP.

2. Materials and Methods

2.1. Study Sites

This study located at GSSP, is formerly known as Gunung Stong Tengah Forest Reserve. The coordinate for GSSP is N 05°20.362'', E 101°58.521'' (Kamarul, 2014). GSSP is managed by the Kelantan State Forestry Department and covers an area of 21, 950 ha and

surrounded by the Basor, Gunung Stong Utara, Gunung Stong Selatan, Balah and Berangkat Forest Reserves. It is officially declared as protected area by the State Government of Kelantan in 2007 and it is one of the eco-tourism destinations in Malaysia as it is rich with flora and fauna (Jayaraj et al., 2012).

2.2. Data Collection

Field observation was carried out on tourists' response towards local entrepreneurial in order to identify the benefits derived through tourism activities. Questionnaires Survey were done with a sample space of hundred (Ranjit, 2014). The questionnaire was divided into four sections, these are: (i) the personal background, (ii) the perception of local community towards GSSP, (iii) the role of tourism in local community income and (iv) the attitudes of local communities towards tourism. The participants for the survey are among the local community in the small villages around GSSP. This survey also analyzed the influence of GSSP to the local community development and their knowledge on the importance of the existence of GSSP. The questionnaire was done in the form of Likert Scale for the Sections of 2 - 4. The numerical range which is from one to five were fixed uniformly to ease the data analysis.

2.3. Data Analysis

The Statistical Package for the Social Sciences (SPSS) was used to interpret the result of the study (Pallant, 2010). The tests applied in this study are pilot, reliability and correlation tests. Pilot test was used to test the level of understanding of the questionnaires by the respondents. Five sets of questionnaires were distributed to the students in the university and they were asked to answer the questions. Reliability test was used to test the validity of the questions in the questionnaires. This test is to ensure that the questions met up with its standard and valid to be distributed to the targeted community in the study area. Correlation was used to study the strength of relationship between independent variable and dependent variable. Independent variables are in the term of benefits, role and perception towards tourism in GSSP and dependent variable is in the term of assessment on tourism.

3. Results and Discussion

The result shows that 100% respondents are Malay. About 48% of them are earning income in the range of RM1,001 - 1,500. Generally, it is a low income but they could still sustain their living due to the rural surrounding which could cut the cost of living. The reliability tests for the benefit, roles and perception shows the range of 0.9 to 1.0. The value indicates that the questions are valid for analysis and to test the correlations. The objectives were achieved through correlation between independent and dependent variables.

Table 1: The correlation test between improvement on road maintenance and assessment on tourism

		Improvement on road maintenance
C1 Environment quality	Pearson Correlation	0.969**
	Sig. (2-tailed)	.000
	N	100
C2 Revenue	Pearson Correlation	0.932**
	Sig. (2-tailed)	.000
	N	100
C3 Benefits	Pearson Correlation	0.955**
	Sig. (2-tailed)	.000
	N	100
C4 Culture	Pearson Correlation	0.875**
	Sig. (2-tailed)	.000
	N	100
C5 Bonding	Pearson Correlation	0.829**
	Sig. (2-tailed)	.000
	N	100
C6 Support	Pearson Correlation	0.912**
	Sig. (2-tailed)	.000
	N	100
C7 Potential of new market	Pearson Correlation	0.877**
	Sig. (2-tailed)	.000
	N	100

**Correlation is significant at the 0.01 level (2-tailed)

Table 2: The correlation test between improvement on infrastructure quality and assessment in tourism

		Improvement on infrastructure quality
C1 Environment quality	Pearson Correlation	0.926**
	Sig. (2-tailed)	.000
	N	100
C2 Revenue	Pearson Correlation	0.879**
	Sig. (2-tailed)	.000
	N	100
C3 Benefits	Pearson Correlation	0.936**
	Sig. (2-tailed)	.000
	N	100
C4 Culture	Pearson Correlation	0.809**
	Sig. (2-tailed)	.000
	N	100
C5 Bonding	Pearson Correlation	0.915**
	Sig. (2-tailed)	.000
	N	100
C6 Support	Pearson Correlation	0.949**
	Sig. (2-tailed)	.000
	N	100
C7 Potential of new market	Pearson Correlation	0.948**
	Sig. (2-tailed)	.000
	N	100

**Correlation is significant at the 0.01 level (2-tailed)

The benefit were identified through tourism in GSSP, role played by income from sustainable tourism and perception of local communities toward GSSP. There are five elements were considered under benefit variable, four elements under role in providing income from sustainable tourism and one element included under perception of local communities towards tourism. Dependents variable which is the assessments on tourism were specified into seven sub elements and the same sub elements are used as dependent variable for each

correlation test. Results of correlation test for the purpose of identifying the benefits received by local communities through tourism in GSSP are shown in Tables 1 - 6.

The result from Table 1 shows that local communities gained benefits through improvement on road maintenance. The correlation indicated the high positive value in the range of 0.83 to 0.97. It means that the road maintenance was much improved with the establishment of GSSP.

In Table 2, the correlation shows the positive strong values in the range from 0.81 to 0.95. The value indicates that the infrastructure quality was also improved with the existence of GSSP. Based on observation, the infrastructure was neglected and some of it look old and not replaced for quite some time but the result shows positive correlation as the infrastructure refer to the need of the place. The GSSP is mainly for hiking activity and the basic infrastructure is sufficient to justify their needs.

Table 3: The correlation between role of GSSP in enhancing recreational and assessment on tourism activities

		Role of GSSP in enhancing recreational activities
C1	Pearson Correlation	0.869**
Environment quality	Sig. (2-tailed)	.000
	N	100
C2	Pearson Correlation	0.829**
Revenue	Sig. (2-tailed)	.000
	N	100
C3	Pearson Correlation	0.878**
Benefits	Sig. (2-tailed)	.000
	N	100
C4	Pearson Correlation	0.852**
Culture	Sig. (2-tailed)	.000
	N	100
C5	Pearson Correlation	0.857**
Bonding	Sig. (2-tailed)	.000
	N	100
C6	Pearson Correlation	0.897**
Support	Sig. (2-tailed)	.000
	N	100
C7	Pearson Correlation	0.846**
Potential of new market	Sig. (2-tailed)	.000
	N	100

**Correlation is significant at the 0.01 level (2-tailed)

Table 3 shows the strong and positive correlation value in the range of 0.85 to 0.90. The result indicated that tourism sector is enhancing the recreational activities in GSSP. Based on observation, this role is acceptable as GSSP is widely used by local communities for recreational purpose.

Table 4 shows the positive and strong correlation values in the range in of 0.75 to 0.89. The value indicates that entrepreneurship related income contribution to local communities is one of the role played by tourism in GSSP. Field observation indicated that entrepreneurship based entity are much developed surrounding the study area.

Table 4: The correlation between GSSP tourism potential in contributing to the main income of local communities in term of entrepreneurship

		GSSP tourism potential in contributing to the main income of local communities in term of entrepreneurship
C1	Pearson Correlation	0.866**
Environment quality	Sig. (2-tailed)	.000
	N	100
C2	Pearson Correlation	0.860**
Revenue	Sig. (2-tailed)	.000
	N	100
C3	Pearson Correlation	0.865**
Benefits	Sig. (2-tailed)	.000
	N	100
C4	Pearson Correlation	0.747**
Culture	Sig. (2-tailed)	.000
	N	100
C5	Pearson Correlation	0.758**
Bonding	Sig. (2-tailed)	.000
	N	100
C6	Pearson Correlation	0.892**
Support	Sig. (2-tailed)	.000
	N	100
C7	Pearson Correlation	0.841**
Potential of new market	Sig. (2-tailed)	.000
	N	100

**Correlation is significant at the 0.01 level (2-tailed)

Table 5: The correlation between GSSP tourism potential in promoting new local products to tourists and assessment in tourism

		GSSP tourism potential in promoting new local products to tourists
C1	Pearson Correlation	0.874**
Environment quality	Sig. (2-tailed)	.000
	N	100
C2	Pearson Correlation	0.840**
Revenue	Sig. (2-tailed)	.000
	N	100
C3	Pearson Correlation	0.903**
Benefits	Sig. (2-tailed)	.000
	N	100
C4	Pearson Correlation	0.733**
Culture	Sig. (2-tailed)	.000
	N	100
C5	Pearson Correlation	0.862**
Bonding	Sig. (2-tailed)	.000
	N	100
C6	Pearson Correlation	0.918**
Support	Sig. (2-tailed)	.000
	N	100
C7	Pearson Correlation	0.922**
Potential of new market	Sig. (2-tailed)	.000
	N	100

**Correlation is significant at the 0.01 level (2-tailed)

Table 5 shows the positive and strong correlation value in the range of 0.73 to 0.92. The result indicates that promoting new local products to tourist is one of the roles played by GSSP tourism. It also shows that tourism activities influencing the income of local communities. The entrepreneurship was also promoted through the sustainable tourism.

Table 6: The correlation between awareness on the importance of GSSP and assessment in tourism

		Awareness on the importance of GSSP
C1	Pearson Correlation	0.819**
Environment quality	Sig. (2-tailed)	.000
	N	100
C2	Pearson Correlation	0.779**
Revenue	Sig. (2-tailed)	.000
	N	100
C3	Pearson Correlation	0.847**
Benefits	Sig. (2-tailed)	.000
	N	100
C4	Pearson Correlation	0.725**
Culture	Sig. (2-tailed)	.000
	N	100
C5	Pearson Correlation	0.915**
Bonding	Sig. (2-tailed)	.000
	N	100
C6	Pearson Correlation	0.905**
Support	Sig. (2-tailed)	.000
	N	100
C7	Pearson Correlation	0.906**
Potential of new market	Sig. (2-tailed)	.000
	N	100

**Correlation is significant at the 0.01 level (2-tailed)

Table 6 also shows the strong and positive correlation value in the range of 0.73 to 0.92. The correlation values indicated that the local communities have high awareness on the importance of GSSP.

Conclusion

As a conclusion, local communities received a lot of benefits through tourism in GSSP. The tourism activities were improved the infrastructure, road maintenance and enhanced of recreational activities. GSSP also plays role in generating income to local communities through sustainable tourism and promoting new local products to tourists.

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References

- Azizan, M., Aziz, A.H., Badaruddin, M., Ghapar, A.O. & Puad, A.M.S. (2011). Assesment of nature-based tourism in South Kelantan, Malaysia. *Tourismos : An International Multidisciplinary Journal of Tourism*, 281-295.
- Jayaraj, V.K., Farah, N.D.A.T., Amirah, N.U., Farahin, N.K.B., Katijah, S.I. & Azwa, S.N.Z. (2012). Species diversity of small mammals at Gunung Stong State Park, Kelantan, Malaysia. *JoTT Communication*, 2617-2628.
- Kamarul, H. (2014). Macromoths (Lepidoptera: Heterocera) in Jeli, Kelantan: A Preliminary Checklist. *Journal of Tropical Resources and Sustainable Science*, 53-58.
- Kamaruzaman, J. & Dahlan, H.T. (2008). Sustainable Forest Management Practices and Environmental Protection in Malaysia. *Wseas Transaction On Environment And Development*, 191-199.
- Pallant, J. (2010). *SPSS Survival Manual : A Step by Step Guide to Data Analysis using SPSS*. Open University Press/McGraw-Hill. 532p.
- Ranjit, K. (2014). *Research Methodology: A Step-by-step guide for beginners*. Singapore: SAGE Publications Asia-Pacific Pte Ltd.
- Tewodros, K. & Afework, B. (2014). Attitude and Perceptions of Local Residents toward the Protected Area of Abijata-Shalla Lakes National Park (ASLNP), Ethiopia. *Journal of Ecosystem Ecograph*, 1-5.