

The Possibility of Tawau Hills Park in Develop as an Ecotourism Site

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Abstract

Malaysia is well known for its ecotourism since tourism is directed towards exotic natural environments and the local government intended to support conservation efforts and wildlife conservation. Ecotourism is of great importance to the growth of tourism in Malaysia and its action to balance the world's human and climate once upon a time, Tawau Hills Park had extremely rich wildlife. There are a lot of extinct wild animal species in this forest in the last century. There are gibbons, sambar deer, elephants on the foothills, and orangutans on the trees. Yet, due to inadequate construction plans, unfortunately, the forest around the hill is being cut down. The goal of this research is to identify potential indicators in the development of Tawau Hills Park as an ecotourism destination, to determine the suitability of the activities in Tawau Hills Park, and to determine the level of public acceptance for the development of the Tawau Hills Park as an ecotourism site. The approach used for this study is a qualitative method and the result showed that all objectives were answerable. Twelve respondents display a positive response to the question. Fifteen general indicators have been found in this research. The indicators of this research could help Tawau Hills Park in manage and plan for marketing strategies. Meanwhile, the limitation of this research is difficult to transport, short time to gather data, and uncomfortable to get the respondents.

Keywords: ecotourism, ecotourism indicators, ecotourism success, Tawau Hills Park

1.0 Introduction

In 2019, 1.5 billion international tourist arrivals have been registered worldwide. Compared to the previous year, which is also projected for 2020, a 4 percent increase confirms tourism as a leading and resilient economic sector, particularly given current uncertainties. By the very same token, this calls for responsible management of such development to better seize the opportunities that tourism can create for communities across the globe (UNWTO, 2019). Therefore, the effect on both people and nature is important and growing. The results of this can be both negative and positive. Developing and practicing inappropriate tourism will destroy behaviors and the environment, reduce natural resources, and generate waste and pollution. In comparison, responsible tourism can help raise awareness and encourage dialogue and local culture, and build economic opportunities for countries

and communities by Pengiran Bagul (2009). Tourism is a global business with an impact on millions of people's lives. Its capacity as an instrument of growth is immense. With an increasing interest in spending leisure time in nature and an increased understanding of the climate, ecotourism has become one of the fastest-growing segments of the tourism industry, as the United Nations has reported (Blackstock, 2006). Compared to mass or old tourism, ecotourism benefits more from the region, by creating local jobs, and Belsky's (1999) support for sustainable development. It has thus been popularly promoted as a way of reconciling the conservation of wildlife with economic growth, especially in developing countries stated by Campbell (2002).

Ecotourism is characterized by natural attractions, wildlife habitats, and the wilderness. Many countries favor ecotourism as a means of economic development, as it is seen as a low-impact type of tourism (Butler, 1996). Ecotourism operations are typically small-scale, which makes them relatively easy to construct. Carefully designed and managed ecotourism sites, especially if they are village-based and require local participation, are capable of delivering direct benefits that could offset the pressure from other less sustainable activities using natural and cultural resources (Butler, 2006).

Ecotourism is a concept that is often debated. The approach used to simply describe a type of tourism where visitors' motivation and the pitch of sales sold to them, centers on nature observation. Increasingly, this general sector of the market is called 'nature tourism'. The International Ecotourism Society (1993) defines that 'true ecotourism' requires a proactive approach that seeks to mitigate the negative and enhance the positive impacts of nature tourism. TIES also define ecotourism as responsible travel to natural areas that conserves the environment and sustains the well-being of local peoples. This definition not only implies that there should be a recognition of and positive support for the conservation of natural resources, both by suppliers and consumers, but also that there is a necessary social dimension to ecotourism (Butler, 1996).

Tourism's long-term sustainability can only be ensured when the weaknesses and favorable opportunities for the overall tourism growth climate are recognized and ways of evaluating changes caused by tourism are identified and implemented. According to Buckley (2003), Ecotourism is not generally synonymous with a large number of visitors; its growth over a long period in a given community can lead to many changes that can harm the social, cultural, and economic life of the community and its natural environment. These changes may not be noticeable, especially if the number of visitors is small or if ecotourism activities do not have any major effect (Buckley, 2003). These types of improvements, however, appear to occur slowly and steadily over weeks, months, or years and eventually may bring about major and permanent changes in the climate, degrading the local community's living conditions. This is why such changes need to be periodically observed and monitored for potential project adjustments, track

development patterns, and create controls and possibilities for the regulation of undesirable processes (Buckley, 2003).

Impacts can be observed only as a transition relative to a previous baseline. Even indicators that measure environmental quality rather than impacts can only be used for management if there is a benchmark against them according to Popova, (2003). Benchmarks are also required if environmental degradation or management in one park is to be measured in a national, regional, or global context and if indicators of different types are to be aggregated to provide an overall comparative measure of environmental quality, effect, or performance in management, they must first be expressed as numerical measures with a spectrum, variance, and normalization of similar means. Standardization may be useful, for example, in comparing different metrics to each other to decide which ones have improved the most or the fastest. According to a set of standardized metrics, aggregate indices are useful for comparisons between parks in the same geographical area or jurisdiction; for comparisons between regions and countries; and for monitoring patterns over time, whether locally or globally. The availability or feasibility of developing baselines or benchmarks is therefore a considerable factor when choosing particular metrics or tourism impacts in parks (Buckley, 2003).

2.0 Problem statement

Mohammad Daud, (2007) stated that the Ecotourism sites that fall under their control, and the respective councils will also be responsible for delivering maintenance services to the area through the local government, which includes the city hall," municipalities, and regional councils. This is because they primarily engage in the implementation stage of the life cycle of the ecotourism product. Therefore it is very important to re-evaluate the ecotourism parks to recognize their existing development stages. So, the studies on the ecotourism sites' performance indicators are also minimal.

Braun argued that some studies that emphasize measures of progress are not unique to the field of ecotourism but to general tourism and sustainable areas (Braun, 2014). Accordingly, the measures and indicators available in the literature on tourism do not capture this study's intention; however, they are useful in providing research guidance. The problem is the understanding and creation of metrics for the quality of Sabah's ecotourism sites to enhance the management of the state park.

According to Popova (2013), the indicators should revise every three years to determine the efficiency of the indicators. Pengiran Bagul (2011) also stated that the set of indicators should test every five years to determine the effectiveness of the indicators. Through tracking those metrics, it is possible to determine whether the overall eco-tourism goals are being achieved. To define the current indicators that can be applied and to assess site growth, a comprehensive collection of indicators is developed to identify the relationship

between tourism activities and the area's capacity to sustain those impacts (Pengiran Bagul, 2011).

According to the data provided by the Sabah Tourism Board (STB), (2016), the total visitors travel to Sabah was growing rapidly. However, visitors that visit to ecotourism sites decreased 12 percent compared with the previous year. This issue should be revised by the related parties to sustain or increase the number of visitors. According to Pengiran Bagul (2009), the number of visitors was the indicator that determines the success of the ecotourism sites. Therefore, a research related to this issue should be conducted to carry out the problem and solution to overcome this issue.

3.0 Research objectives

The research objectives that are derived from the research questions can be achieved in completing the research tasks. They are:

- a. To investigate the context of success.
- b. To develop the indicators for ecotourism site success.
- c. To identify the level of an ecotourism sites success.

4.0 Butler's theory: the tourist area cycle of evolution

Butler (1996) developed his theory or model based on the product life cycle business/marketing idea. Pengiran Bagul (2009) claimed that the theory of the product life cycle in which new product sales are seen to rise gradually and then undergo rapid growth until stabilizes and eventually declines. Butler stated that only stagnation and rejuvenation or decline levels are considered success levels. Even though the declining level shows that the number of visitors is dropping, but it does not drop rapidly and take a few months and years to drop, the management can find out the solution before the numbers of visitors drop out. one of the characteristics of Butler's model in stagnation stage is the number of visitors and facilities in the site.

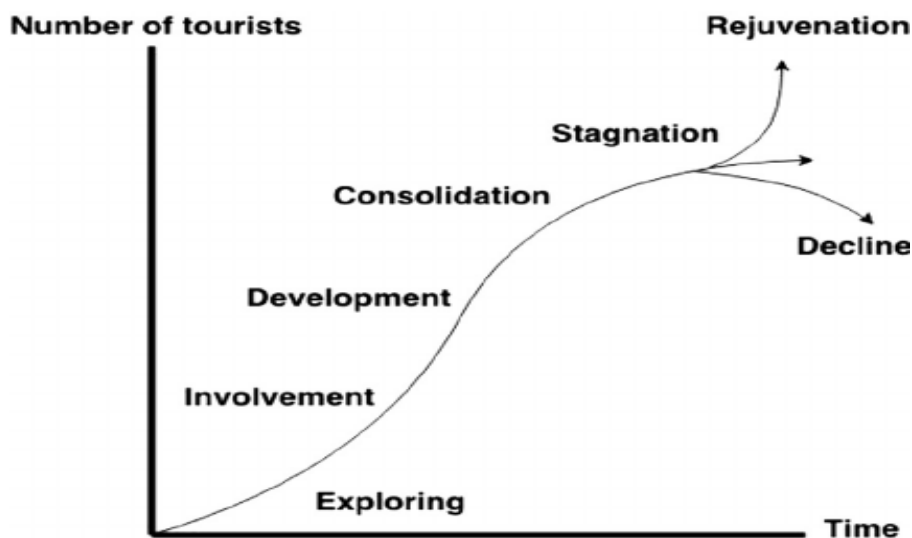


Figure 1: Butler's tourist life cycle

Butler's model is adopted into this research to determine the success level of the ecotourism sites. The set of indicators will compare the characteristics of Butler's model and determine the success level of the ecotourism site.

5.0 Research sites

According to the Sabah Tourism Board (2016), Sabah has 15 ecotourism sites that fit into the ecotourism terminology. They are based in this state all over and have a high east coast reputation. Such sites have few experiences of ecotourism, ranging from passive activities such as watching wildlife to vigorous activities such as mountain climbing. Tawau Hills Park is one of the sites that found matching the sites with the criteria, and they suit the characteristics chosen for this research after an elimination phase. The geographical locations of the sites were also taken into account during site selection. Tawau Hills Park is situated in Tawau, the site selected based on their characteristics that match the concepts outlined as follow:

Table 1: Site selection guidelines

No	Criteria	Description
1	Type of activities	The activities at the selected ecotourism sites must have the prime motivation of observation and appreciation of natural features and related cultural assets
2	Type of attraction	Selected ecotourism sites must have at least one flagship attraction. This refers to distinctive elements of natural and/or cultural heritage, which are found at the site
3	Eco-practices	The area and facilities at the selected ecotourism sites should incorporate at least one eco-practice such as incorporating eco-nature trails management, refuse treatment practices, employing local communities and similar concept
4	Status of site protection	Selected ecotourism sites must be in or adjacent to an area with protection statues such as World Heritage Site, Wildlife Sanctuary, and Forest Reserve

6.0 Tawau Hills Park

Tawau Hills Park was established in 1997 and there are seven rivers connected within the park boundary. This water catchment provides an important continuous water supply for the entire area that surrounds Tawau and Semporna. Tawau Hills Park is managed by Sabah Park. Tawau Hills cover 280km sq. and is situated 25km northwest of Tawau, the third-largest town in the state of Sabah in Malaysia Borneo (STB, 2016).

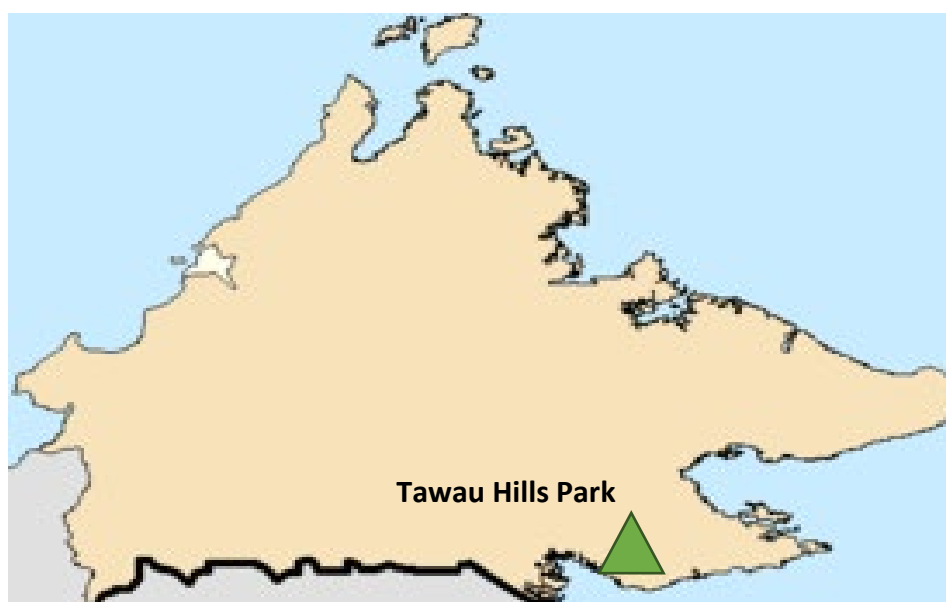


Figure 2: Tawau Hills Park

Tawau Hills Park presents an uneven volcanic landscape with three main peaks within the park, there is Mount Maria with a height of 1067m, Mount Lucia with a height of 1189m, and the tallest mount in Tawau named Mount Magdalena with a height of 1310m. The park also functions as a corridor between other forest reserves like Ulu Kalumpang in the north and Mount Andrassy Forest Reserve to the south. Bordering the park on the east and west are palm oil, cacao, and rubber plantations (STB, 2016).

There are numerous hiking trails throughout the park some leading to waterfalls such as the Table Waterfalls which has formed a little pool at its base that is suitable for swimming. For the more adventurous the park offers a two days hike up to the top of the mount Magdalena. There are natural sulphuric hot springs that open for the public to spend their vacation and have a family camping at the weekend (STB, 2016).

The park is rich in natural resources like flora and fauna, varieties types of insects, and extinct plants. Tawau Hills Park also a lowland rainforest that gives way to thick untidy forests as the altitude increases and also contains some of the last remaining non-swampy lands under the protection of primary class forest in Sabah. The forest is rich in Begonias, Tree Ferns, Agathis Trees, forest herbs and over 150 species of Orchid have been recorded. Among the varieties species of the orchid, Elephant Ear Orchid boasts the largest orchid leaves in the world which are recovered by scientists. Tawau Hills Park is a bird lover's paradise, it's a home for over 180 species of birds including the Blue Banded Kingfisher, Blue-Headed Pitta, Lesser Fish Eagle, Six species of Hornbill, and three rare types of Pheasants. Mammals in the park include several species of monkeys such as Borneo Gibbons, Red Leaf Monkeys, Grey Leaf Monkeys, and Macaques. The Borneo's largest and most beautiful wild cat Clouded Leopard has been found here along with Leopard

Cats, Civet Cats, Giant Tree Squirrels, and the slow-moving forest Tortoise (STB, 2016).

6.1 Ecotourism

There are many researchers written about ecotourism, and several attempts have been made to describe it. However, there is little consensus about its meaning because of the many forms in which ecotourism activities are offered by a large and wide variety of operators and practiced by an even wider range of tourists. Ecotourism has been commercialized as a form of tourism based on nature. But it was also studied as a sustainable developer by development experts, academics and NGOs (TIES, 2017).

In 1991, the International Ecotourism Society created one of the earliest descriptions of ecotourism as responsible travel to natural areas that protect the environment and maintain the well-being of local people. The World Conservation Union reports in 1996 that ecotourism Ecologically conscious travel and visitation to relatively undisturbed natural areas, to enjoy and appreciate the beauty and any associated cultural features of the promotes conservation, has low negative visitor impact, and provides for beneficially active socio-economic involvement of local populations.

When the concept was first defined, a consensus has developed on the basic elements of ecotourism as follows: It (1) contributes to the conservation of biodiversity, (2) sustains the well-being of local people, (3) includes an interpretation/learning experience, (4) involves responsible action on the part of tourists and the tourism industry, (5) requires the lowest possible consumption of non-renewable resources, and (6) stresses local participation, ownership and business opportunities, particularly for rural people (UNWTO, 2012).

Ecotourism could contribute to the economic benefits for governments, private entrepreneurs, and local communities alike if it's properly planned and managed. Likewise, ecotourism could be an effective tool for the conservation of natural and cultural assets. To achieve sustainable development results. However, it is important to stress that all tourism activities, whether it's for holidays, businesses, conferences or fairs, health, adventure, or ecotourism, should aim to be sustainable. This means that the planning and development of the tourism infrastructure, its subsequent operation, and its marketing should focus on environmental, social, cultural, and economic sustainability criteria (TIES, 2017).

6.2 Ecotourism's indicators

According to the United Nations Commission of Sustainable Development (UNCSD), the use of criteria and indicators (C & Is) for sustainable development have been acknowledged as important tools to measuring the status of management of sustainable development. C & Is used to evaluate the past, guide the actions of the present, and plan for the future, we need to know what to monitor, what types of data to collect, and

what to measure. In other words, to track changes in social, natural, cultural, economic, and political arenas of ecotourism destinations, we need several sets of sustainability centered ecotourism indicators based on their relevance, analytical soundness, and measurability.

The set of ecotourism impression and success indicators are mechanisms that measure the impact of ecotourism on the environment. To evaluate these indicators, it is possible to determine whether the overall ecotourism goals are being achieved. To assess whether a given region is sustainable in terms of the impacts of tourism growth, many indicators are required to show the relationship between tourism activities and the area's capacity to sustain these impacts (Popova, 2003). According to Pengiran Bagul (2009), the indicators might help management and others to identify how communities change as a result of tourism development.

According to Bhattacharya & Kumari (2004), a method for evaluating tourism effect thresholds and changing socioeconomic and environmental status needs to be developed. This can be achieved within the sustainability context by establishing Criteria and Indicator (C&I). This should be a continuous process that involves the duty of society toward sustainable livelihood generation through community-based ecotourism without any deterioration of the environment and loss of cultural values. Indicators can help managers and others to identify how communities change as a result of tourism development. Popova (2003) also stated that The damage to the resources of ecotourism could result in economic losses for those whose livelihoods depend on tourism, as well as environmental and social losses for the local community.

Sustainable tourism sustainability can only be ensured if the limitations and positive opportunities of the entire tourism environment are understood and if the changes made by tourism have been identified and applied. Ecotourism is not usually associated with a large number of visitors, but with the development of the community over a long period. It can lead to several changes that can harm the social, cultural, and economic life of the community and its natural environment. These changes may not be conspicuous, particularly where the number of visitors is small or where ecotourism activities do not have any significant impact (Kiper, 2011).

However, such changes appear to accumulate and slowly over weeks, months, or years, which may eventually contribute to massive which permanent changes in the climate, worsening the living standards of the local community. That is why these changes need to be regularly observed and monitored, for development trends to be followed and for controls and opportunities to regulate undesirable processes to be established. Such indicators may show solid trends in the development of ecotourism. Measuring changes and providing information to local people and relevant community development authorities and institutions, and managing ecotourism could help them make the best choices. So, these indicators allow the collection and creation of some community tourism data, including

opportunities for periodic updating and establishing a dynamic order, and the evaluation and assessment of changes (Daud, 2002).

Hence, this research is tented to carry out the potential indicators to fill up the gap as mentioned in the literature review. The new indicators are expected to contribute to the government in planning their strategies to manage the ecotourism sites well. The set of indicators will help the shareholders measure their ecotourism site and fit the characteristics that should be. The indicators also help in improve and upgraded what are the basics and necessary facilities needed. Pengiran Bagul (2009) in his research stated that the set of the indicators should be tested and measure to ensure the indicators could be applicable in the site.

7.0 Methodology

This study applied methodological techniques that can help researchers understand how and when such planning and strategy takes place. This study will interview tourism shareholders and tour operators in obtaining goals one or more data. For this analysis, the semi-structured interview was applied and the data collected was saturated, indicating that the same data has been replicated. This research applied qualitative methods which can help researchers to understand how and why such behaviors take place.

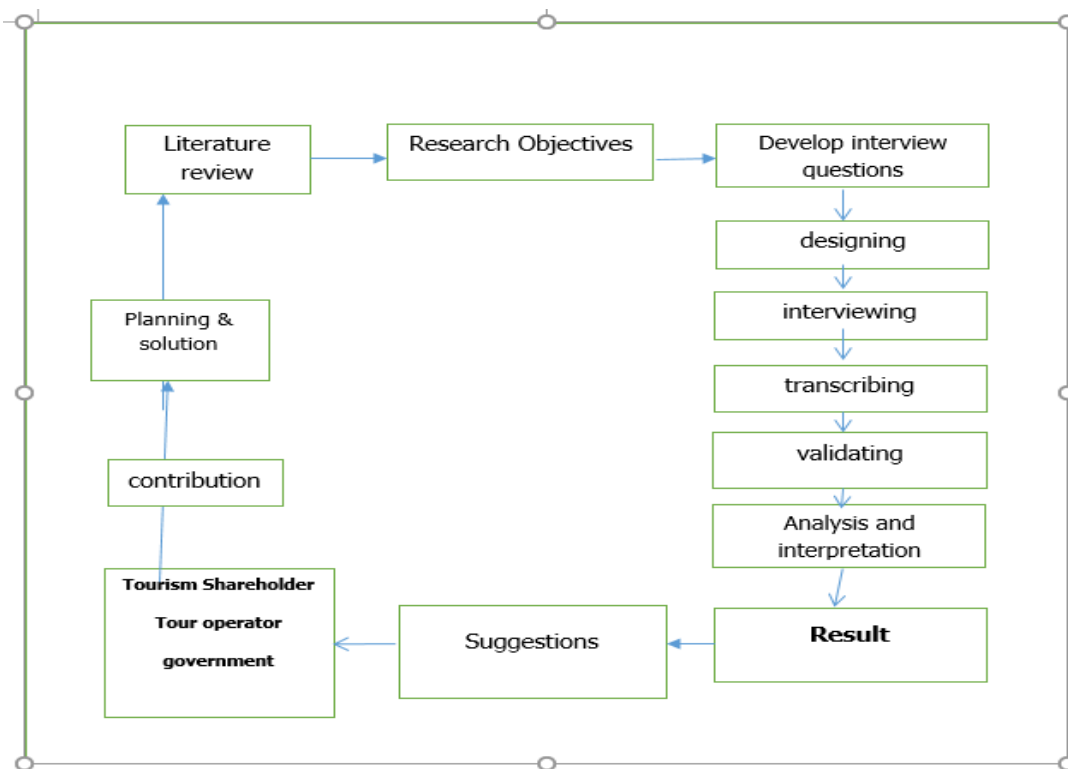


Figure 3: Research flow Chart

The data were then analyzed to get the results and compare them with Butler’s Model. There is a set of the indicator will be proposed. The indicator is quite consistent with those others drawn from the literature review. The

analysis also shows that there are issues that need to be addressed about the indicator.

The data obtained would then be transcribed. After that, the data were then analyzed to obtain the results, this study focused on the key indicators that determine the Tawau Hills Park as an ecotourism destination.

8.0 Result and discussion

There are 33 raw indicators discovered during the interview session, based on the data collected. The data collected were saturated when the informants keep provide the same information for few times. The data would then be clustered according to the different categories, after the data validity with the informants, they're remaining 15 indicators have become compact and more meaningful compared to the raw indicators. These indicators are perceived by stakeholders as indicators for the ecotourism site.

The first research objective is to understand the success context of the ecotourism site, but after a few years of study, there are some variations in the success context. People have concentrated more on the local economy and small enterprises from the beginning, but today people are more concerned about the natural environment, good governance, and a large number of visitors.

There are a total of 33 raw measures discovered for the second research purpose, based on the data gathered. The remaining 15 indicators are compacter and more important compared to the raw indicators following the clustering process. Those indicators are perceived as the Bukit Gemok 's success as an ecotourism site by stakeholders. Table 2: Tawau Hills Park success indicators

Table 2: Success indicators

No	Indicators of Tawau Hills Parks	Frequency
1	Natural environment	98
2	Site attraction	59
3	The high number of tourist	54
4	Clean	31
5	Well manage facilities	30
6	Positive experience	19
7	Good service	8
8	Continuous conservation	6
9	Repeat visitor	6
10	Efficient management	5
11	No illegal logging	5
12	Convenience accessibility	4
13	Popular	4
14	Clear and visible Interpretation	4
15	Effective promotion and marketing	1

The third research goal is about the success of the level of Tawau Hills Park as an ecotourism site. The majority of the respondents stated that the Tawau Hills Park level development is at the level of exploration according to the Butler model. After examining the characteristics of the Butler model and the site characteristics that the respondents identified, there are three out of five characteristics.

Table 3: Sites Characteristics vs. Butler’s Model

Sites	Characteristic	Butler’s model characteristics	Analysis
Tawau Hills Park	1. natural environment	1. a small number of tourists	1. natural environment
	2. site attraction	2. tourists’ attraction	2. site attraction
	3. number of tourists	3. natural environment	3. number of tourists
	4. facilities	4. No secondary attraction.	
	5. no pollution		

9.0 Conclusion

It is hoped that this research will give a clearer view of the success indicators of the ecotourism sites in Sabah to help the related agencies develop ecotourism sites. Specifically, the current study is hoped to provide a clear view of the ecotourism rules, political, and benefits in Sabah. The first objective gives a clear view of the public about the context of the successful ecotourism site. People realized that nowadays our environment is polluted and destroyed by unplanned development. Many of the natural environment is destroyed by unstructured development, this is why people nowadays more emphasized nature compare with business matters. The second objective is about the indicators of the Tawau Hills Park. The natural environment is ranking first among the 15 indicators and following by site attraction and the high number of visitors. The first and second indicators focus on the physical of the site which is people more emphasized the natural environment and the natural site attraction compare with business. After the natural characteristics then the number of visitors, the informants realized that the success of the site must rely on the high number of visitors. These indicators would then will be proposed to the related parties to planning and manage their strategies to develop the site. Objective three shown that the people perceived that the Tawau Hills Park is in the no success level. This is because there are four out of five characteristics match Butler’s model which is the site is no success. It means that Tawau Hills Park needs man changes and development to achieve a success level.

The organizations will build more successful and appealing services with this information. Besides, the strategies provided by the agencies will

also help the management of ecotourism sites to improve their performance. Ecotourism management could, therefore, help the Government to improve the economic situation and contribute to the goal of becoming a developed country in the future. For the future research, it's suggested that the application of the indicators and tested the validity of the indicators. A set of indicators that carry out haven't tested yet and not really cleared about their validity. The limitation in this research is the limited informants and Tawau Hills Park considered that not popular site in that area.

Reference

- Annual Report (1996). *The World Conservation Union*. IUCN.
- Beaumont, N. (2011). The third criterion of ecotourism: are eco-tourists more concerned about sustainability than other tourists?. *Journal of Ecotourism*, 10 (2), 135-148.
- Belsky, J. (1999). *Interactional and contextual determinants of attachment security*. New York: Guilford Press.
- Bhattacharya, D., Chowdhury, B. and Sarkar,R. (2004). Irresponsible Ecotourism Practices Flanking the Best National Park in India: A Multivariate Analysis. In *2nd International Conference on Business and Economic Research* (pp.1901- 1928). Langkawi, Malaysia.
- Buckley, R. (2003). Natural area tourism: Ecology, impacts, and management. *Annals of Tourism Research*, 30(2), 497-499.
- Campbell, G. (2002). Distalization of the Drosophila leg by graded EGF-receptor activity. *Nature*, 418(6899), 781-785.
- Castley, J.G., Hill, W., and Pickering, C.M. (2009) Developing ecological indicators of visitor use of protected areas: a new integrated framework from Australia. *Australasian Journal of Environmental Management*, 16, 196-207.
- Chesworth, N. (1995). *Ecotourism Seminar paper delivered in the Institute of Environmental Studies and Management*. Philippines: UPLB.
- CREST Sustainable Tourism Planning. (2017). Retrieved from http://www.mescot.org/mescot_village_cooperative.htm
- Kiper, T. (2011). The Determination of nature walk routes regarding nature tourism in North-Western Turkey: Şarköy District. *Journal of Food, Agriculture & Environment*, 9 (3&4),622-632.
- Pengiran Bagul, A. H. B. (2009). *Success of ecotourism sites and local community participation in Sabah*. Victoria University of Wellington.

- Popova, M. (2003). *Ecotourism impact / success indicators*. Baseline data 2002. *Samokov Pilot Region of Rila National Park*. Retrieved from http://www.moew.government.bg/ecotourismforum/index_e.htm.
- Sabah Tourism Board (2016). *Sabah's tourism*. Kota Kinabalu.
- The International Ecotourism Society (TIES). (2017). *Ecotourism Guidelines for Nature Tour Operators*. North Bennington, Vermont, United States
- Weaver, D.B & Lawton, L.J. (2007). Twenty years on the state of contemporary ecotourism research. *Tourism Management*, 28,1168–1179.
- World Tourism Organization. (1996). *Sustainable Tourism in Black Sea Coastal Zones*. Madrid: WTO.
- World wild Fun, (2001). *Arctic wildlife under threat as sea ice hits historic low*. Retrieved from <https://www.worldwildlife.org/stories/arctic-wildlife-under-threat-as-sea-ice-hits-historic-low>