Guideline Development of Potential Tourism Management at Erawan National Park in Kanchanaburi Province via Participation between Government Private Sector and Community

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Abstract

The objectives of this research are to study potential of tourist spots, tourists’ behaviors and management of national reserve parks in order to identify approaches to develop potentials of tourism management of Erawan National Park in Kanchanaburi province, Thailand. The study adopts mixed research methods. The quantitative data were collected from questionnaires distributed to the sample of 400 tourists, aged between 20 - 60 years old. The sample was selected using the non-probability quota sampling method with equal number of 200 tourists who visited the National Park on weekdays, and another 200 tourists on weekends. Meanwhile, the qualitative data were collected by conducting in-depth interviews with 16 selected stakeholders of the Erawan National Park and analyzed using descriptive methods. Results of the research reveal that the Erawan National Park has potential regarding tourism, environmental and management, to accommodate the tourists. Challenges of and obstacles to the management are related to crowdedness caused by too many tourists in the waterfall area, since the forest tracking and bird watching activities are not popular among the tourists.

Keywords: Tourism Management, Erawan National Park

บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อศึกษาศักยภาพแหล่งท่องเที่ยว พฤติกรรมการท่องเที่ยวของนักท่องเที่ยวในการบริหารจัดการอุทยาน และแนวทางพัฒนาศักยภาพการบริหารจัดการการท่องเที่ยว อุทยานแห่งชาติเอราวัณ จังหวัดกาญจนบุรี การดำเนินงานวิจัยเป็นการวิจัยแบบผสมผสาน ผู้ให้ข้อมูลการวิจัยเชิงปริมาณ คือ นักท่องเที่ยวชาวไทยอายุ 20 ปี ถึงอายุ 60 ปี ใช้การสุ่มตัวอย่างแบบไม่อาศัยความ

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น่าจะเป็นแบบโควต้า โดยเก็บข้อมูลโดยใช้แบบสอบถามจากนักท่องเที่ยวที่เดินทางมาท่องเที่ยวในวันธรรมดาจำนวน 200 คน และวันหยุด จำนวน 400 คน สำหรับการวิจัยเชิงคุณภาพเก็บข้อมูลโดยการสัมภาษณ์จากผู้ที่มีส่วนได้ส่วนเสียกับอุทยานแห่งชาติธรรมแนวจำนวน 16 รายโดยคัดเลือกแบบเจาะจง และวิเคราะห์ข้อมูลเชิงพรรณนา ผลการวิจัยพบว่า อุทยานแห่งชาติธรรมแนวมีศักยภาพในการรองรับนักท่องเที่ยวในด้านแหล่งท่องเที่ยวด้านสภาพแวดล้อมต่างๆ และการจัดกิจกรรมปัญหาและอุปสรรคในการบริหารจัดการ คือ นักท่องเที่ยวเข้ามาที่อุทยานแห่งชาติธรรมแนวเป็นจำนวนมากทำให้เกิดความแออัด ทั้งนี้ เมื่อจากกิจกรรมการเดินตามเส้นทางศึกษาธรรมชาติและการส่องนกไม่ได้รับความสนใจจากนักท่องเที่ยว

คำสำคัญ: การบริหารจัดการการท่องเที่ยว อุทยานแห่งชาติธรรมแนว

Introduction

Tourism is considered as the largest industry in the world and has been growing rapidly across all regions of the world. The United Nations World Tourism Organization (UNWTO) has predicted that, in 2020, the number of tourists worldwide will increase to two times to more than 1,600 million (Ministry of Tourism and Sports, 2015). In the future, tourism will become important recreational activities for people in the age of globalization. In Thailand, the tourism industry has been expanding rapidly. From statistical data, the number of tourists coming into various provinces of Thailand was 24,809,683 in 2014, and rose to 29,881,091 in 2015, or the increase of 5,071,408 people (Department of Tourism [DOT], 2015).

Kanchanaburi province is a major tourism destination for both Thai and foreign tourists. From statistical data, the number of tourists visiting Kanchanaburi was 6,641,111 in 2014 and increased to 7,574,278 in 2015, or the increase of 933,167 people or 14.05 percent (DOT, 2015).

The reason why Kanchanaburi has attracted numerous tourists stems basically from its location along the Thailand-Myanmar border. The province is famous for its historical sites as it had been a significant Burmese-Siamese battleground for over 400 years. Particularly, the province is the home to the famous Bridge of River Kwai or the Death Railway. The construction was initiated by the Japanese army using tens of thousands of POWs including the British, Americans, Australians, Dutch, etc. and Asian slave laborers during World War II. The Bridge is part of the Japanese army’s plan to construct a railway line linking Thailand to Myanmar and was meant to transport necessary cargos. As the construction took place in unfavorable conditions, difficult terrains, diseases as well as food shortages; tens of thousands of laborers lost their lives. It is believed that one life was lost for each sleeper laid in the track. (“Tourist attractions”, 2000)

Bridge of River Kwai took only one month to complete using steels transported from the Malay, and it was official launched on 25th December 1943. Nonetheless, in November 1944, the Bridge was bombed by the allied Forces for several times until the middle part of the Bridge was destroyed. After the war ended, the Bridge was repaired and, at present, it is regarded as a “Symbol of Peace” (Figure 1).
In addition, Kanchanaburi has many natural attractions such as Erawan National Park, SaiYok National Park and Thong PhaPhum National Park, etc. From statistical data, the number of tourists visiting SaiYok National Park was 120,297 in 2014 and rose to 121,949 in 2015. Meanwhile, the number of tourists visiting Thong PhaPhum National Park was 19,225 in 2014 and rose to 23,244 in 2015, while Erawan National Park has attracted 748,749 visitors in 2014 and rose to 712,763 of visitors in 2015 (DOT, 2015).

It is notable that Erawan National Park has got the highest number of visitors of all National Parks in Kanchanaburi. Factors that attract tourists into Erawan National Park, in addition to its not-far-from-Bangkok distance, are its unique crystallized clear waterfall reflecting emerald-like radiance, thus making it the perfect place for visitors to spend their leisure time. Moreover, the Park attracts visitors in and outside Kanchanaburi province, rendering the locals in the communities around the National Park to earn incomes from sales of food, drinks and souvenirs to tourists.

From the statistics, the total number of tourists who visited Erawan National Park in 2015 was 712,763 people, generating the revenues of 90,603,396 baht, or a rise of 17,249,122 baht from of 73,354,274 baht in 2014 (Department of National Parks, Wildlife and Plant Conservation: DNP., 2015). Hence, private entrepreneurs also see an opportunity to conduct relevant business in the areas close to the Park, including accommodations, restaurants, or even tour guide provision.

Various businesses conducted in the National Park and the increasing number of tourists every year has affected the sustainability of the natural resources of the Park. Without proper maintenance, the National Park may be degraded due to having to inadequately accommodate an exceeding number of visitors. According to the study of Department of National Parks, Wildlife and Plant Conservation: DNP. (2014), it was found that Erawan National Park Waterfall can accommodate 2,464 tourists/day. Nonetheless, the Park has no further potential to support increasing number
of tourists, and may pose a threat to the Park in the future. Hence, related organizations including public and private sectors as well as the community should be aware of and contributed to the maintenance of the Park.

In this regard, the researchers reckoned that Erawan National Park should determine approaches to remain in good condition so as to accommodate the increasing number of visitors which contribute to the economic development of the province. The responsibilities to maintain and reserve Erawan National Park do not fall only on officers of the Park, but the communities, restaurant and hotel operators as well as government agencies in the area should be involved in the management of the Park to lead to sustainable tourism.

To conclude, the tourism industry makes a significant contribution towards the economic development of tourist destinations but also faces challenges and criticism related to the associated adverse environmental and social impacts. Being a resource-dependent industry, it is urgent that tourism developers and government regulators recognize their responsibility towards the environment and consider the environmental and socioeconomic impacts in order to remain viable in the long run.

Literature Review

Department of National Parks, Wildlife and Plant Conservation (DNP., 2014) has initiated a Project to study potential of Erawan National Park to accommodate tourists in three aspects, including physical (such as facilities), ecological and social aspects by considering overall potential of Erawan Waterfall which is a famous tourist spot and its maximum utilization. The results were discussed below.

From the evaluation, it was found that Erawan Waterfall hiking trails can accommodate up to 8,850 persons/day. The statistics indicated that, during tourist season (October - April), the average number of tourists who visited the Erawan National Park during weekends (Saturday - Sunday) and public holidays was 4,259 persons/day. From the evaluation, it was found that toilets of the Erawan Waterfall and nearby areas can accommodate tourists of up to 6,480 persons /day, while shower rooms and outdoor shower in the National Park can accommodate up to 1,404 persons/day. Thus, when comparing the current usage level with the average number per day of 4,259 tourists who visited the Park during holidays, it was found that the shower rooms were not sufficient to meet the needs of visitors.

Ministry of Tourism and Sports (2015) has specified criteria for assessing value and attractiveness of tourism attraction (waterfall) as consisting of 2 main areas.

1. Factors of value and beauty of a waterfall: consisting by of volume of water, height of the waterfall, width of the cliffs, number of layers, quality of the water, stones around waterfall, waterfall basin, the integrity of the forest, trees, wildlife such as birds, landscape, natural route, and historical significance.

2. The risk of destruction, including exploitation of the area above the waterfall, invasion condition, project involving the use of water above the waterfall, and the risk of damage from natural disasters.
Vuuren and Slabbert (2011) explored the travel behavior and linked it to the way in which tourists behave according to their attitudes before, during and after travelling. Knowledge regarding travel behavior can assist in marketing and product planning and development which can increase the number of visitors to tourism products such as resorts. The results indicated that the main travel motivations are resting and relaxation, enriching and learning experiences, participation in recreational activities, personal values and social experiences.

Messer and Bennett (2014) studied sustainable tourism and identified the environmental, economic, and socio-cultural aspects of sustainable development in both the planning and operation of tourism. Sustainable tourism development requires the informed participation of community members and stakeholders, strong political leadership and organization, and continuous effort to create a high level of tourist satisfaction.

According to Wang and Tong (2009), local Community is an important tie of binding the protection to economic income and social benefit, and it is the core stockholder of ecotourism. The existence and development of local inhabitants are based on resource an environment of ecotourism areas. The local inhabitants are both the beneficiaries after environment optimization and the victim after ecological environment broken by ecotourism development. Community participation in ecotourism can make a positive promotion to the protection of ecotourism environment.

Pedersen (2002) stated that effective visitor management involves establishing limits negotiated with the stakeholders. Through tourism advisory boards or councils, stakeholders can help managers to establish visitor conditions and set quantifiable standards for problem management and impact limitation. Challenges in stakeholder concern cooperation and public participation. However, formulating a clear idea of different stakeholder groups can be difficult, open discussion may be seen as a threat to one’s power and control, the most vocal critics can dominate the participation process, and public participation may be more a form of appeasement than a way to solicit stakeholders’ input.

In this aspect, factors promoting participation and effective communication are related to trust to enhance a group’s willingness to participate and a collective approach encourages public participation. Claiborne (2010), explored the role and value of social capital in community tourism development, and found that local participation in tourism has been regarded as a positive force for change, yet representing an over-simplistic conclusion. The principle behind local participation may be easy to promote, however as seen in this case, the practice is far more complex. Generally, it is often assumed that members of a community are willing and able to participate equally. However, the initiative for participatory community development may be started, but the community does not fully participate due to lack of interest.

Sherpa (2011) described and evaluated the role of public participation in tourism development projects in high mountain environments in India. Public participation in decision-making is a critical component of
sustainable tourism development. A framework of sustainable tourism was therein adopted, consisting of environment, economy, and society.

Objective

1. To study the tourism potential of Erawan National Park in Kanchanaburi province;
2. To study behavior of tourists in Erawan National Park in Kanchanaburi province;
3. To study the tourism management of Erawan National Park in Kanchanaburi province;

Conceptual Framework

From Figure 2, the conceptual framework was developed from the literature review and related researches, and consisted of dependent and independent variables as following:

**Independent variables** are:
Tourism potential of Erawan National Park in Kanchanaburi province, including Access to the area, Activities, Safety and Environmental factors.

**Dependent variables** are:
Tourism management of Erawan National Park in Kanchanaburi province, including Education and raising awareness, Human resource, Management.

Respondents who provide information relating to management of the Erawan National Park in Kanchanaburi province, including Hotel/Restaurant, Government, Local communities, Tourists.

Tourism behavior of tourists in Erawan National Park in Kanchanaburi, including The Purpose of visiting, Activities during the visit and Planning of traveling route.

Dependent variables are:

Tourism Management of Erawan National Park in Kanchanaburi province, including Education and raising awareness, Human resource and management.

Research Methodology

Mixed methods research, or the combination of qualitative and quantitative research, is adopted as per following:

1. Population and sample

Quantitative Research

Populations are the total number of visitors to the Erawan National Park, Kanchanaburi, of 712,763 people in 2015 (DNP., 2015). The sample group was calculated by using the formula of Taro Yamane (Yamane, 1973) with confidence level of 95 percent and significance level of 0.05. The calculation has determined the sample group of 400 people.

The sample group consisted of Thai tourists aged between 20 to 60 years old, and selected using the non probability sampling technique from the visitors who visited the National Park during weekdays (Monday - Friday) and weekends (Saturday - Sunday). As the actual ratio number of tourists in each time period was undetermined, we specified the equal number of sample group of 200 people during weekdays and 200 people during holidays, a total of 400 people.

Qualitative Research

The respondents for quantitative analysis are 16 stakeholders of Erawan National Park. The sample group was selected using the purposive method and got four representatives from each group:

1. Four representatives of the private sector consisting of tour operators, hotel and restaurant operators whose workplaces are located around the Erawan National Park for not less than five years.

2. Four representatives of the government sector whose positions are in the managing level for not less than three years.

3. Four representatives of local communities who have been living around the the Erawan National Park for not less than five years.

4. Four representatives of tourists who have visited the Erawan National Park for not less than three times.

2. Data Collection Method

Quantitative Research

Data collection tool was a questionnaire with the reliability coefficient of 0.970 and divided into 3 sections including:

Section 1: Tourism potential of Erawan Nation Park in Kanchanaburi province. The 5-point rating scale questionnaire with 23 items was implemented to measure 3 main aspects, namely, access to the area, activities, and safety and environmental factors, The reliability coefficient of this section is at 0.963.

Section 2: Tourism behavior of tourists in Erawan National Park in Kanchanaburi province. The 5-point rating scale questionnaire with 23 items was implemented to measure 3 main aspects, namely, purpose of visiting, activities during the visit, and planning of traveling route, The reliability coefficient of this section is at 0.918.

Section 3: Tourism management of Erawan National Park in Kanchanaburi. The 5-point rating scale questionnaire with 22 items was
implemented to measure 3 main aspects, namely, education and raising awareness, human resource, and management. The reliability coefficient of this section is at 0.957.  

Qualitative Research  
Data collection tool was unstructured questions for in-depth interviews with 16 stakeholders Erawan National Park. The questions asked about the reasons for visiting the Erawan National Park, the management plan for the Park, the involvement of local community in the management of the Park, and the plan to provide security to tourists who visit the Park.

3. Data Analysis  
The data were analyzed as following:

Qualitative Research  
The data from stakeholders of Erawan National Park were analyzed using the content analysis.

Results  
Quantitative research  
Objective 1: To study the tourism potential of Erawan National Park in Kanchanaburi province; The highly agreeable opinion regarding the tourism potential of Erawan National Park is related to the overall perspective on access to the area (\( \bar{x} = 4.04, \ SD. = .66 \)), environmental factors (\( \bar{x} = 4.01, \ SD. = .73 \)), safety of tourism spots (\( \bar{x} = 3.87, \ SD. = .80 \)), and activities (\( \bar{x} = 3.71, \ SD. = .81 \)) (Table 1).

<table>
<thead>
<tr>
<th>Potential of Erawan National Park</th>
<th>( \bar{x} )</th>
<th>SD.</th>
<th>Priority Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Access to the area</td>
<td>4.04</td>
<td>.66</td>
<td>1</td>
</tr>
<tr>
<td>2. Environmental factors</td>
<td>4.01</td>
<td>.73</td>
<td>2</td>
</tr>
<tr>
<td>3. Safety of tourism spots</td>
<td>3.87</td>
<td>.80</td>
<td>3</td>
</tr>
<tr>
<td>4. Activities</td>
<td>3.71</td>
<td>.81</td>
<td>4</td>
</tr>
</tbody>
</table>

Objective 2: To study tourist behavior of tourists in Erawan National Park in Kanchanaburi province; The overall perspective on reason for visiting Erawan National Park (\( \bar{x} = 3.89, \ SD. = .71 \)), and purposes of visiting Erawan National Park in Kanchanaburi Province (\( \bar{x} = 3.56, \ SD. = .68 \)) was highly agreeable. Activities in the Erawan National Park (\( \bar{x} = 3.27, \ SD. = .92 \)) and Information of the National Park (\( \bar{x} = 3.27, \ SD. = .95 \)) was moderately agreeable (Table 2).
Table 2  Tourism behavior of tourists of Erawan National Park in Kanchanaburi Province

<table>
<thead>
<tr>
<th>Tourism behavior of tourists</th>
<th>x</th>
<th>S.D.</th>
<th>Priority Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reason for visiting Erawan National Park</td>
<td>3.89</td>
<td>.71</td>
<td>1</td>
</tr>
<tr>
<td>2. Purposes of visiting Erawan National Park</td>
<td>3.56</td>
<td>.68</td>
<td>2</td>
</tr>
<tr>
<td>3. Activities during the visit</td>
<td>3.27</td>
<td>.92</td>
<td>3</td>
</tr>
<tr>
<td>4. Information of the National Park</td>
<td>3.27</td>
<td>.95</td>
<td>4</td>
</tr>
</tbody>
</table>

Objective 3: To study tourism management of Erawan National Park in Kanchanaburi province; The highly agreeable opinion regarding to the tourism management of Erawan National Park is related to the overall perspective on management (x = 3.95, SD. = .71), human resource (x = 3.91, SD. = .75), and education and raising awareness (x = 3.88, SD. = .76) (Table 3).

Table 3  Management of Erawan National Park in Kanchanaburi Province

<table>
<thead>
<tr>
<th>Management of Erawan National Park in Kanchanaburi Province</th>
<th>x</th>
<th>SD.</th>
<th>Priority Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Management</td>
<td>3.95</td>
<td>.71</td>
<td>1</td>
</tr>
<tr>
<td>2. Human resource</td>
<td>3.91</td>
<td>.75</td>
<td>2</td>
</tr>
<tr>
<td>3. Education and raising awareness</td>
<td>3.88</td>
<td>.76</td>
<td>3</td>
</tr>
</tbody>
</table>

Qualitative research

From in-depth interviews with stakeholders, it was found that, during the peak season, a large number of tourists would visit the National Park. This would cause congestion and overcrowded are especially around the waterfall area. It is due to insufficient areas to accommodate the tourists. Therefore, visitors had to scatter into different levels of waterfall. In order to maintain cleanliness and waste management, the National Park has a policy to prohibit waste dumping by inspecting belongings of visitors prior going up to the third level of the waterfall.

In addition, the National Park has officers to oversee safety of tourists at the waterfall on each level and has a first aid kit ready for any accident. Moreover, local communities and authorities in the area would co-organize joint activities including the prevention of forest fire and other events during important festivals. Nonetheless, tour operators, hotel/restaurant operators and people in the community are concerned that increasing the National Park entry fee would affect the number of tourists who visit the National Park as well as revenue of the shops, restaurants, hotels and accommodations around the area.
Discussion

The quantitative research on tourism behavior of tourists revealed that the tourists came to the Erawan National Park particularly to spend their leisure time at the waterfall. As a result, they caused congestion and overcrowded the area due to a large number of tourists, especially during the peak season. Therefore, the visitors are scattering into different levels of waterfall in order to avoid congestion in the lower level. The findings were aligned with the study of DNP. (2014) which stated that the physical capacity and facilities of the tourism spots are factors that determine the potentials to accommodate the highest number of tourists at a certain time. From this analysis, Erawan National Park Waterfall can accommodate up to 2,464 tourists/day. Nonetheless, during holidays, the number of tourists who visit Erawan National Park Waterfall has already exceeded its potential to accommodate all of the tourists (Over CC). Therefore, it can be concluded that the current level of tourists would seriously be imposing an adverse effect on Erawan National Park Waterfall.

For information obtained from interviewing with the tourists, they stated no interest in forest tracking nor bird watching activities. In addition, the latter was indicated as the least interesting activity with moderate agreeable opinion among the visitors. The results were aligned with the study of Department of National Parks, Wildlife and Plant Conservation (DNP. 2014) which found that the restrooms in waterfall and vicinity area in Erawan National Park have capabilities to support 6,480 tourists/day. At the same time, the bathroom and outdoor shower area can accommodate 1,404 tourists/day. Therefore, the average number of 4,259 tourists/day during holiday is relatively too high for the bathrooms to accommodate and be adequately used by all the visitors.

When considering the factors relating to the tourism behavior of visitors of the Erawan National Park, the most of them agreed that beautiful landscape and scenery is the main attractive factor. Moreover, the tourists learn about information of the Park from friends, relatives, acquaintances and tourist information board. The results were in line with the concept of Vuuren and Slabbert (2011), indicating that the main travel motivations are resting and relaxation, enriching and learning experiences, participation in recreational activities, personal values, and social experiences.

Suggestion

1. Suggestions from the research

From the study to determine approaches to develop the potential of tourism management of Erawan National Park in Kanchanaburi Province, the involvement of government, private sector and communities, is recommended as following:

Hence, only a small fraction the forest tracking activity potential is being used.

Regarding cleanliness and convenience of restroom, the tourists reckoned that there are insufficient restrooms. The findings were aligned with the study of Department of National Parks, Wildlife and Plant Conservation (DNP. 2014) which found that the restrooms in waterfall and vicinity area in Erawan National Park have capabilities to support 6,480 tourists/day. At the same time, the bathroom and outdoor shower area can accommodate 1,404 tourists/day. Therefore, the average number of 4,259 tourists/day during holiday is relatively too high for the bathrooms to accommodate and be adequately used by all the visitors.
1. Management of overcrowded problem due to a large number of tourists, especially during the tourist season. Visitors should be scattered in different levels of waterfall in order to avoid congestion in the lower area as Erawan National Park has limited resting benches for tourists. Therefore, Erawan National Park should develop alternative natural routes to attract tourists to enjoy other activities.

2. Management of wellbeing and safety of visitors in the Erawan National Park, Kanchanaburi. The research showed that officers on each floor are monitoring and providing security to tourists and are ready to provide first aid response when any accidents occur. However, the tourists have indicated that the officers should patrol the area to look after the tourists’ safety. Besides, there should be more warning signs available to tourists in several languages other than Thai such as in English and Russian.

3. Management of waterfall area is a very important factor that cannot be overlooked as visiting waterfall is the main reason that attracts tourists into the National Park. Erawan National Park is unique because there are many Mahseer Barbs which are not afraid of tourists. Nonetheless, some of the Mahseer Barbs are too large, so some tourists fear that they may be dangerous to young children. Hence, the park officers should take out some of the larger fishes and release them in the nearby dam to ensure the tourists’ safety.

4. Lastly, tourists are urging the National Park to effectively manage restrooms as there are insufficient restrooms in the Park. Therefore, the Park should provide cleaning staffs to standby especially during the peak season or use signboards to promote the tourists to maintain the cleanliness of the restrooms.

2. Suggestions for further research
The future research may focus on the effect of tourism behavior on management of Erawan National Park, and on the awareness and recognition of tourists on conservation of natural resources in the tourist areas.

References:


