Assessment of Tourism Resource Potential at Buriram Province, Thailand

Mayuree Nasa1 & Fatimah Binti Hassan1

1 Geography program, School of Distance Education, Universiti Sains Malaysia, Penang, Malaysia

Correspondence: Mayuree Nasa, Geography program, School of Distance Education, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia. E-mail: ipixx65@gmail.com

Received: February 17, 2016      Accepted: August 1, 2016      Online Published: September 19, 2016
doi:10.5539/ass.v12n10p27                  URL: http://dx.doi.org/10.5539/ass.v12n10p27

Abstract

The objective of this paper is to assess the resource potentials for tourism and potential tourist destinations in the province of Buriram, Thailand. Buriram province is located in the northeastern part of Thailand, about 410 km northeast of Bangkok. Indicators and evaluative standards for resource potential assessment were determined, and altogether the total of 31 sites were assessed by a simple weighted score method, one of the popular methods for evaluating the potential of tourism sites. The total number of indicators used was 45. The results revealed that eight sites were categorized into the natural tourist destination, ten sites were the historical tourist destination, ten sites were the cultural tourist destination, and another three were the sport-recreational tourist destination. These three sport-recreational sites, known as I-Mobile Stadium, Chang International Circuit, and Play La Ploen Boutique Resort and Adventure Camp, were the latest attractions because there were built within the last five years, but consequently have become among the most popular tourist attractions in the area. The site assessment revealed that tourism sites in Buriram province had a potential overall score of 2.23 (moderate level) from the highest score of 3.00. Approximately 39% of the total tourism sites have higher potential. According to the analysis of sites and tourism activities, Buriram is highly suitable for the educational tour in historical and cultural sites, and sports destination.

Keywords: tourism resource potential, weighting score method, Buriram province

1. Introduction

Over the decades, tourism has grown and become one of the fastest growing economic sectors in the world. Furthermore, the tourism industry in many countries plays a significant role in the growth of the economy (UNWTO, n. d.). Tourism defined as the processes, activities and the outcomes. The consequences are ascending from the relationships and the interactions among tourists with the surrounding environment. There are consists of the tourism supplier, host communities, host government that involved in the attracting the visitors. Tourism can also improve the livelihood of its residents or local communities because tourism has a close connection with them particularly as hosts and guides (Beeton, 2006). Tourism planning is the process that foresight of the direction of destination development. An assessment of tourism resource potential is part of the tourism planning process and tourism development (Gee & Fayos-Sola, 1997; Rivero et al., 2014). The stakeholders, both the public and private sector, involved in tourism development in any area depending on their plan and policy that will achieve tourism development at any destination (Russell, 2007). Therefore, it is critical that tourism development in a destination should well planned and managed. The result and confirm many views that tourism development is a viable way to protect the environment and enhance the social and economic benefits for local communities.

The simple weighted score method was used in this study. The procedure is one of the traditional methods for assessing the potential of tourism sites. The result of the assessment will make a better understanding of the status of the resources on the part of the supply side of the tourism industry in the Buriram province of Thailand. Half a decade ago, Buriram province, which located in the northeastern part of Thailand, about 410 km northeast of Bangkok became a famous destination in Thailand. This phenomenon can gather from the visitor numbers that has increased in recent years. The statistics show an increasing number. The visitor number arise from 238,673 people in 2009 to 960,031 people in 2014 (Department of Tourism, 2015). In the past, Buriram has the spectacular 10th-century ruins of Phanom Rung, which is one part of the mighty Khmer Empire like Cambodia's
Angkor Wat. Besides, Buriram well-known with the historic destination such as the ancient castle and the extinct volcano. Since the year 2011, Buriram became the famous sports destination with the emerging of Buriram Football Club and Chang International Circuit in 2014. It seems that Buriram has slightly changed the tourist destination image from historical destination to sports destination. Besides, these newest sites belong to the private sector. Therefore, the preparation of the tourism resources database is necessary for tourism planner in the public sector to cope with the rapid change. This is to be in line with the concept of the sustainable tourism development.

The principles and goals of sustainable tourism development in a tourism destination include well planned and managed resources for tourism products and tourist consumption. The key factors to be considered systematically in the planning and development of a tourism destination comprised four elements, consisting of the tourist attraction, tourism facilities and services, tourism markets, and management (Emphandhu, 2003). The resource assessment was required and can be incorporated into the planning process (Julianna, 2001), which is fundamental to the planning process.

The evaluation of the potential of the tourism resource is the assessment of the ability of the resources to support tourism activities. It can meet the demand for tourist activities, satisfaction, and quality experience at the destination (Tanakanjana et al., 2005). The evaluation of the potential can be in several ways. In most cases, indicators and benchmark are preferable. It can be a qualitative and quantitative indicator that based on an assessment of each measure. These need to be recognized by experts in each field and confirmed by recent research. The acknowledged method is the weighting score method and calculates by the weighted score equation. Then, classified the potential levels, such as three levels or five levels. (Forestry Research Center, 1995; Suwan, 2001; Putjorn, 2001; Tanakanjana et al., 2005). The analysis of potential tourism resource was not only to seek the resource outstanding but also the limitation of uses. This procedure is also to highlight the resources that can be developed as a unique of tourist attraction in each area and to analyze the adequacy of resources for specific activities. Furthermore, it can be used as a guide to designing activities at the site (Tanakanjana, 2002). The measurement of the potential of the resource base to support different forms of tourism.

The objective of this paper is to assess the resource potentials for tourism and potential tourist attraction in Buriram province. The assessment of tourism resources will help the Thai government and the private sector know about the existing status of the tourism resources in the area.

2. Methodology

2.1 Data Collection

This paper focuses only on the tourism resources component of the tourism system. This study begins with the inventory of tourism resource in Buriram province. The 31 tourism sites located in the Buriram province (Table 2) were carried out to assessing the tourism resources potential. Local tourism agencies identified these 31 tourism sites. The identification of the type of the resource started before evaluating the resource (Davidson, 1992). Tourism resources were identified into four types based on supply feature. Its comprise of the Historical site, Cultural site, Natural site, and Recreational and sports site (Table 2).

2.2 Instrument

Indicators and criteria for assessment of the resources’ potential were developed primarily based on related literature reviews from within the country (Forestry Research Center, 1995; Dachanee, 2003; Department of Tourism, 2005; Faculty of Forestry, 2007) and validated by academics and practitioners. The validation of the Weighted score (W) in the formula by academics. The Rating Score (R) was examined in the field. The total number of indicators for evaluation of potentials was 45. The historical sites had 12 indicators, the cultural sites had 14, the natural sites had ten, and the recreational and sports sites had nine indicators (Table 1). The score used the Likert scale with one as the low potential to three as high.

Table 1. Indicators for assessment of tourism resource potential, Buriram province

| Indicators | Weighting score |
|------------|-----------------|
| 1) Historical site |
| Historical value | |
| 1. Historical important | 3 |
| 2. Archaeological evidence | 3 |
| Indicators                                                                 | Weighting score |
|---------------------------------------------------------------------------|-----------------|
| 3. The uniqueness of ages                                                 | 3               |
| 4. Physical uniqueness                                                    | 3               |
| 5. The integrity of the architecture                                      | 3               |
| 6. Artistic integrity                                                     | 3               |
| 7. Local commitment                                                       | 3               |
| **Physical potential and activity**                                       |                 |
| 8. Accessibility: Ease of access                                          | 3               |
| 9. Accessibility: Access route signs                                      | 2               |
| 10. Safety and security: The frequency of the dangers of natural disasters in the past year | 2               |
| 11. Safety and security: The frequency of the dangers of external factors such as crime, epidemics, etc. | 2               |
| 12. Diversity of tourism activities                                       | 1               |
| **2) Cultural site**                                                      |                 |
| **Cultural value**                                                        |                 |
| 1. The uniqueness of the way of life, wisdom, and knowledge               | 2               |
| 2. Continuation of traditional culture                                    | 2               |
| 3. Cultural beauty                                                        | 2               |
| 4. Continuation of the way of life, wisdom, and knowledge                 | 2               |
| 5. A searchable historical culture                                         | 2               |
| 6. Local commitment                                                       | 2               |
| 7. Strengthened to maintain cultural identity                              | 2               |
| 8. Cultural conservation groups network                                   | 2               |
| **Physical potential and activity**                                       |                 |
| 9. Accessibility: Ease of access                                          | 2               |
| 10. Accessibility: Access route signs                                      | 2               |
| 11. Safety and security: The frequency of the dangers of natural disasters in the past year | 2               |
| 12. Safety and security: The frequency of the dangers of external factors such as crime, epidemics, etc. | 2               |
| 13. Diversity of tourism activities                                       | 1               |
| 14. Linkages with other attractions                                       | 1               |
| **3) Natural site**                                                       |                 |
| 1. Attractive and uniqueness elements                                     | 3               |
| 2. Richness of vegetation and naturalness of ecosystem                    | 3               |
| 3. Opportunity for wildlife sightings                                     | 3               |
| 4. Landscape quality and aesthetics                                       | 3               |
| 5. Appropriateness of tourism activities related to the site characteristics and resources | 2               |
| 6. Diversity of tourism activities                                        | 2               |
| 7. Micro-climate condition                                                | 2               |
| 8. Accessibility                                                          | 2               |
| 9. Self-reliance                                                          | 2               |
| 10. Opportunity for challenge and exciting experiences                    | 2               |
| **4) Recreational and sport site**                                        |                 |
| **Technology levels at the attractions**                                  |                 |
| 1. A modern novelty and creative                                          | 3               |
| 2. Level of technology or knowledge                                       | 3               |
### Indicators and Weighting Scores

| Indicators                                                                 | Weighting score |
|---------------------------------------------------------------------------|-----------------|
| To impress the tourists                                                   |                 |
| 3. The attractiveness of tourism destination                               | 3               |
| 4. The attractiveness of tourism activities                               | 3               |
| The ability to manage the services and tourism activities                 |                 |
| 5. The ability to service                                                 | 3               |
| 6. Number of the interesting tourism activities                           | 1               |
| 7. Attractiveness of tourism activities                                   | 1               |
| Accessibility                                                             |                 |
| 8. Ease of access                                                         | 2               |
| 9. Access route signs                                                      | 1               |

Sources. Adapted from Forestry Research Center, 1995; Dachanee, 2003; Department of Tourism, 2005; Dachanee et al., 2007.

#### 2.3 Data Analysis

The weighting score method, known as the Weighted Scoring Method, is a form of multi-attribute or multi-criterion analysis (Department of Finance and Personnel, n. d.). Weighted Scoring is a technique for putting an appearance of objectivity into a subjective process (David, no date). The method of scoring assigns numeric values to judgments. It should reflect expert views and supported by objective information. This Weighted Scoring Method used when selecting anything where we must compare one item to another. The calculations need to handle with care. The weights and scores are based on judgments. The Simple Weighting Score Equation was used to calculated follow by Morgan (1999); Emphandhu (2002) and Tanakanjana et al. (2005). Simple Weighting Score Equation was employed for potential calculation (Forestry Research Center, 1995; Emphandhu, 2002; Tanakanjana et al., 2005) the formula shown in equation (1) and the tourism resources’ potential level can be calculated from the formula shown in equation (2).

\[
TRP = \frac{\sum_{i=1}^{n} (W_i \times R_i)}{\sum_{i=1}^{n} W_i}
\]

while

\[
TRP = \text{Tourism resource potential}
\]

\[
W_{1i} = \text{Weighted score of the indicator from 1 to i}
\]

\[
R_{1i} = \text{Rated Score of the indicator from 1 to i}
\]

\[
The \text{width of the class interval} = \frac{\text{Max score} - \text{Min score}}{\text{Number of intervals}}
\]

\[
= \frac{3 - 1}{3}
\]

\[
2.34 - 3.00 = \text{high potential}
\]

\[
1.67 - 2.33 = \text{moderate potential}
\]

\[
1.00 - 1.66 = \text{low potential}
\]

#### 3. Results

The results from the evaluation of the tourism resources’ potential in Buriram Province found that all tourism resources in the area could classify into four types. The findings show that it comprised of historical areas with a total of ten sites, cultural areas with a total ten, natural areas with eight, and lastly recreational and sports areas with a total of three sites. The results in Table 2 shows the evaluation, and it highlights that the assessment of the historical areas was at a moderate level with the average score 2.18 (from 3.00). The highest score was Phanomrung Historical Park with 2.90 scores. The next below were the Muang-tum ancient castle and the City
Pillar Shrine with 2.81 and 2.55 respectively. The lowest score was Prang ku rusee with a score of 1.55 due to
the difficulty of access. The assessment of the cultural areas showed a moderate level with the average score 2.00
(from 3.00). The highest score was Na Pho silk village with 2.55 score. The next below were Hong temple and
Khao Angkarn temple with 2.41 and 2.38 respectively. The assessment of the natural areas determined a
moderate level with the average score of 2.02 (from 3.00). The highest score was Phukradong forest park with a
2.38 score. The next below were Dong Yai Wildlife Sanctuary and Lamnangrong Dam with 2.67 and 2.29
respectively. The lowest score was Lam pa thia reservoir with a score of 1.46 because of the appropriateness of
tourism activity related to the site characteristics and resources. The assessment of the Recreation-sport areas
was at a high level with the average score of 2.72 (from 3.00). The highest score was Play La Ploen Boutique
resort and adventure camp with a 2.90 score. The next below were the I-mobile Stadium and the Chang
International Circuit with 2.90 and 2.35 respectively. It also shows that Buriram province has historical sites and
cultural sites in higher numbers than the natural sites and recreational and sports sites and that the number of
historic sites has a high score greater than the others. Next are cultural sites, recreation and sports, and natural
respectively. However, the results from this study show only the potential level but it useful for the planner to set
the priority for development tourism products.

Table 2. The result of the tourism resource potential assessment in Buriram province

| Tourism sites name list | Organization | District | Distance from the city center (km.) | Potential score level |
|------------------------|--------------|---------|-------------------------------------|----------------------|
| 1) Historical site (10 sites) |              |         |                                     |                      |
| 1. Phanomrung Historical Park | The Fine Arts Department | Chalermprakiat | 68 | 2.90 High |
| 2. Muang-tum ancient castle | The Fine Arts Department | Prakonchai | 44 | 2.81 High |
| 3. The city pillar shrine | Buriram provincial administrative organization | Muang | 1 | 2.55 High |
| 4. Prang ku suantang | The Fine Arts Department | Ban Mai Chaiphot | 85 | 2.39 High |
| 5. Sawai ancient kiln | The Fine Arts Department | Ban Kruat | 66 | 2.10 Moderate |
| 6. Rock cutting source | The Fine Arts Department | Ban Kruat | 66 | 2.03 Moderate |
| 7. Rama I monument | Buriram provincial administrative organization | Muang | 1 | 1.87 Moderate |
| 8. Kun kong temple | Kun kong temple | Nang Rong | 54 | 1.81 Moderate |
| 9. Rao su monument | Buriram provincial administrative organization | Non Din Daeng | 98 | 1.77 Moderate |
| 10. Prang ku rusee | The Fine Arts Department | Ban Mai Chaiphot | 85 | 1.55 Low average score 2.18 Moderate |
| 2) Cultural site (10 sites) |              |         |                                     |                      |
| 11. Na Pho silk village | Na Pho village | Na Pho | 78 | 2.55 High |
| 12. Hong temple | Hong temple | Phutthaisong | 64 | 2.41 High |
| 13. Khao Angkarn temple | Khao Angkarn temple | Chalermprakiat | 68 | 2.38 High |
| 14. Buriram cultural center | Buriram Rajabhat University | Muang | 1 | 2.09 Moderate |
| 15. Koh kaew tudong sathan temple | Koh kaew tudong sathan temple | Ban Dan | 15 | 2.00 Moderate |
| 16. Soht-ground walking | Buriram Municipality | Muang | 1 | 1.77 Moderate |
Tourism sites name list 

| Street | Organization | District          | Distance from the city center (km.) | Potential score level |
|--------|--------------|-------------------|-------------------------------------|-----------------------|
| 17.    | Nong Bua Kok museum | Mr. Thamnu Woratongthai | Lam Plai Mat 32 | 1.73 | Moderate |
| 18.    | Ban Kok Muang homestay | Ban Kok Muang village | Prakonchai 44 | 1.73 | Moderate |
| 19.    | Kaonoi temple | Kaonoi temple | Muang 16 | 1.68 | Moderate |
| 20.    | Ban Kruat cultural center | Ban Kruat wittayakarn school | Ban Kruat 66 | 1.68 | Moderate |

average score 2.00 Moderate

3) Natural site (8 sites)

| Street | Organization | District          | Distance from the city center (km.) | Potential score level |
|--------|--------------|-------------------|-------------------------------------|-----------------------|
| 21.    | Phukradong forest park | Department of National park, Wildlife, and Plant Conservation | Muang 7 | 2.38 | High |
| 22.    | Dong Yai wildlife sanctuary | Department of National park, Wildlife, and Plant Conservation | Non Din Daeng 92 | 2.67 | High |
| 23.    | Lamnangrong Dam | Royal Irrigation Department | Non Din Daeng 92 | 2.29 | Moderate |
| 24.    | Huai Chorakhe mak reservoir | Royal Irrigation Department | Muang 18 | 2.25 | Moderate |
| 25.    | Huai Talat reservoir | Royal Irrigation Department | Muang 17 | 1.83 | Moderate |
| 26.    | Chong O-bok | Border Patrol Police | Ban Kruat 66 | 1.75 | Moderate |
| 27.    | Huai Meka reservoir | Royal Irrigation Department | Ban Kruat 66 | 1.54 | Low |
| 28.    | Lam pa thia reservoir | Royal Irrigation Department | Lahan Sai 100 | 1.46 | Low |

average score 2.02 Moderate

4) Recreational and sport site (3 sites)

| Street | Organization | District          | Distance from the city center (km.) | Potential score level |
|--------|--------------|-------------------|-------------------------------------|-----------------------|
| 29.    | Play La Ploen Boutique resort and adventure camp | Play La Ploen Boutique resort Company Limited | Khu Muang 33 | 2.90 | High |
| 30.    | I-mobile stadium | Buriram United Football Club | Muang 5 | 2.90 | High |
| 31.    | Chang International Circuit | Buriram United Company Limited | Muang 6 | 2.35 | High |

average score 2.02 Moderate

net average score 2.23 Moderate

Remark.
1/ Source: http://www.burirambta.wordpress.com
2/ Source: http://www.buriram.go.th
3/ 1.00 – 1.66 = low potential 1.67 – 2.33 = moderate potential 2.34 – 3.00 = high potential

4. Conclusion
The study explored the potential of the resources for tourism in Buriram province. The findings found that most of the high potential sites are historic resources. Especially, the Phanom Rung castle, which is once part of the
powerful Khmer Empire and still well preserved. It also means that this is the dominant and attractive theme of the province. The strength of the outstanding resources provides the opportunity in connecting with the neighboring countries such as Cambodia to create tourism routing. Interestingly, the study found that the highest potential scoring sites were recreational and sports sites. These three tourist spots were the newest tourist destination in the province, and it became famous destinations in the region and country so that this is the new theme of the tourist destination that serves tourists.

From the outcome of the assessment, it is suggested that the local community and the stakeholders of the tourism industry in the province should prepare themselves for the tourism sector. By the issue of sustainable tourism development addressed the key element comprise of the destination, tourism facilities and services, tourism markets and management (Emphandhu, 2003). The study also supports the vision of the Thailand tourism strategic plan of 2020 (Ministry of Tourism and Sports, no date) where Buriram province is included in the province of the “Isan civilizations cluster”. Hopefully, these findings will help the tourism public sector in the province enhance the development of the destination according to the potential level. Besides, the potential score of the tourism resources useful in prioritizing the development of the tourism sites. Tourism Authority of Thailand can use the result of the study to promote tourism according to the capability of the area. An undeniable that benefits from tourism development are creating the opportunity for jobs in the tourism sector. The government sector relating to tourism should take this opportunity to gain the benefit and distributed evenly to local communities. This paper assessed only on the supply components but still need to assess more from the demand by the visitor. Especially, the sports fan. Moreover, the tourism carrying capacity should be considered for future study.

References

Beeton, S. (2006). Community development through tourism. Australia: Landlink Press.

David, A. Z. (2015, April 14). In What is the Weighted Scoring Method? Retrieved April 14, 2015, from http://terms.ameagle.com/2011/01/david.html

Davidson, D. A. (1992). The evaluation of land resources (2nd ed.). Harlow: Longman Scientific and Technical.

Department of Finance and Personnel. (2015, April 14). The weighting and Scoring Method. Retrieved April 14, 2015, from http://www.dfpni.gov.uk/eag-the-weighting-and-scoring-method

Department of Tourism. (2005). Tourism Destination standard: Handbook. Ministry of Tourism and Sports, Thailand. (In Thai.)

Department of Tourism. (2014). Visitor Statistics year 2004-2014 (Unpublished). Retrieved from http://www.tourism.go.th on January 2015

Emphandhu, D. (2003a). Ecotourism. Faculty of Forestry, Kasetsart University, Thailand (In Thai.).

Emphandhu, D. (2003b). Outdoor Recreation Resources Assessment. Faculty of Forestry, Kasetsart University, Thailand (In Thai.).

Faculty of Forestry. (2007). Final Report of Chiang Mai Looping System project., Kasetsart University, Thailand (In Thai.).

Foresty Research Center. (1995). A Final Report of the project “Tourism for Natural Conservation: A case study of Southern region of Thailand”. Faculty of Forestry, Kasetsart University, Thailand (In Thai.).

Gee, C. Y., & Fayos-Sola, E. (1997). International Tourism: A Global Perspective. World Tourism Organization.

Juliana, P. (2001). Assessment of natural resources for nature-based tourism: the case of the Central Coast Region of Western Australia. Journal of Tourism Management, 22, 637-648. Retrieved from http://course.sdu.edu.cn/G2S/eWebEditor/uploadfile/20130509154754002.pdf

Ministry of Tourism and Sports. (2015, February 1). Thailand Tourism Strategic plan 2020. Retrieved February 1, 2015, from www.thailandtourismcouncil.org

Morgan, R. (1999). A novel, user-based rating system for tourist beaches. Journal of Tourism Management, 20(1999), 393-410.

Putjorn, J. (2001). A Final Report of the project “Ecotourism potential analysis for Ecotourism directory in Thailand”. Tourism Authority of Thailand, Bangkok (In Thai.).

Rivero, M. S., Matin, J. M. S., & Gallego, J. I. R. (2014). Methodological approach for assessing the potential of a rural tourism destination: An application in the province of Caceres (Spain). Current Issues in Tourism,
Russell Uyeno. (2007). *Tourism Development of Hawaii Tourism Destination Planning and Development*. School of Travel Industry Management, University of Hawaii. (2015, January 6) Retrieved from http://www.tim.hawaii.edu/dl/Document%20Library%20 %20TO%20490%20Additional%20Materials/TO490_section-5_destination-planning.pdf

Suwan, M. (2001). *A Final Report of the project “Quality standards of Tourist Attraction index” Tourism Authority of Thailand, Bangkok* (In Thai.).

Tanakanjana, N. (2002). *Advanced Planning and Design for Parks and Recreation Areas*. Faculty of Forestry, Kasetsart University, Thailand (In Thai.).

Tanakanjana, N., Arunpraparut, W., Pongpattananurak, N., Nuampukdee, R., & Chum-sangsri, T. (2005). *A Final Report of the project “Decision support system for the Sustainable Management Planning of Nature-Based Recreation Areas.”* Faculty of Forestry, Kasetsart University, Thailand (In Thai.).

Tourism Authority of Thailand. (2015, February 1). *Buriram Province Tourist Map*. Retrieved February 1, 2015, from http://www.tat.or.th

UNWTO. (2015, January 6). In *Understanding Tourism: Basic Glossary*. Retrieved January 6, 2015, from http://media.unwto.org/en/content/understanding-tourism-basic-glossary

**Copyrights**

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).