SUSTAINABLE ECOTOURISM DEVELOPMENT IN KHAO YAI NATIONAL PARK

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ABSTRACT

Khao Yai National Park is a popular and world-famous tourist destination. It is a beautiful and valuable natural attraction in Thailand, classified as a sustainable conservation tourist attraction. The objectives of this research were: 1) to study the level of sustainable conservation tourism development in Khao Yai National Park; 2) to study the factors influencing the development of sustainable eco-tourism in Khao Yai National Park. A questionnaire was used to collect data from 400 tourists traveling to Khao Yai National Park. Statistics were used to analyze the data, including frequency, percentage, mean, standard deviation, and multiple regression analysis. The results of the research revealed that the overall sustainable development of eco-tourism destinations was at a high level. When considered individually, safety had the highest average, followed by society and culture, the environment, and the economy, respectively. 2) Participation, tourism promotion, tourist attraction management, and consumption behavior of tourists influence sustainable ecotourism development at 67.2%.

Keywords: Ecotourism, Sustainable, Khao Yai

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INTRODUCTION

Khao Yai National Park is a popular and world-famous tourist destination. It is a beautiful and valuable natural attraction. Being in the country, the most important and largest eco-tourism destination in Nakhon Ratchasima Province, with convenient transportation, makes Khao Yai National Park popular and has a tendency for the number of tourists to increase continuously. Khao Yai National Park, Nakhon Ratchasima Province, was Thailand's first national park, established on September 18, 1962. It is located in the Phanom Dong Rak Mountain Range, or the southwestern edge of the Korat Plateau. It has an area of approximately 2,168 square kilometers, or 1,355,396 rai, the third largest in the country, with a territory connected to 11 districts and 4 provinces, namely Prachinburi, Nakhon Nayok, Nakhon Ratchasima, and Saraburi. ASEAN Heritage Park. It is a large forest that originates in important watersheds and is abundant with various plants and wildlife. As well as having a beautiful natural identity, the condition generally consists of complex mountains, such as Khao Rom, the highest peak at 1,351 meters high; Khao Laem, at 1,326 meters high; Khao Kheow, at 1,292 meters high; Khao Sam Yot, at 1,142 meters high; and Khao Pha Pha, at 1,076 meters high, consisting of wide fields interspersed with rich forests. The council area on the north and east sides will slope down; the south part and the east are steeper and steeper and are the source of 5 important streams, including the Prachinburi River. Nakhon Nayok River, Lam Takhong River, Lam Phra Phloeng River, and Huay Muak Lek (Khao Yai National Park, 2021)

Khao Yai National Park has managed accommodation services. row houses, row house camps, and camps to serve tourists in 4 zones, namely the visitor center zone. Travel Service Center Zone Zone on the hill, viewpoint Suraswati Camp Zone, and Ban Thanarat Zone. So that tourists can stay overnight in the park conveniently and safely. The staff of the park is the service manager for tourists. by having to reserve the queue in advance before staying (Department of National Parks, Wildlife, and Plant Conservation, 2021), with measures to limit tourists to prevent overflowing tourists in national parks and affecting the environment. Especially the amount of garbage and the number of cars, so it requires a reservation in advance before entering the park. Especially sleeping overnight in the house. The park staff will consider staying in the order of accommodation reservations, and from past statistics, it was found that most of the tourists would come to travel during the month of November until January of the following year. (Khao Yai National Park, 2021).

The situation of experiencing the COVID-19 epidemic since the beginning of the year 2020 has directly affected the tourism industry and the economy in Thailand greatly related to participation and tourism promotion. Tourism management and consumer behavior The researcher is aware of the above problems with tourism in Thailand that need to be developed urgently. to encourage tourism in a better direction; therefore, we are interested in studying "sustainable ecotourism development in the area of Khao Yai National Park "to use the findings from the study as a guideline for developing tourism in Khao Yai National Park in a more sustainable way.

LITERATURE REVIEWS

Concepts and theories about tourism development

The Common Wealth Department of Tourism (2002) means that it is nature tourism that covers the subject matter of studying and understanding nature and the environment. And management to maintain a sustainable ecosystem, including local traditions, distribution of benefits back to local communities, and conservation of natural resources. To learn about culture and history with care not to change or destroy the value of the ecosystem. At the same time, it creates economic opportunities that contribute to the conservation of natural resources for the benefit of local people. Ceballos Lascurain (2010) states that tourism is a form of tourism that involves traveling to natural sites without causing disturbance or damage to nature, but with the

objective of appreciating, studying, learning, and enjoying the scenery of greenery and wildlife, as well as the cultural characteristics present in those natural sites. and Elizabeth Boo (2008) defined nature-based tourism as one that is conducive to conservation. Due to the availability of funds for the protection and maintenance of the area, creating jobs for the community or locality, as well as providing education and raising environmental awareness, it can be concluded that ecotourism is a form of tourism that involves traveling responsibly to natural and cultural sites without causing a disturbance or damage to natural resources or the environment but with a purposeful commitment to admire, learn about, and enjoy the scenery, vegetation, and cultural characteristics that appear in that natural site. It also helps to create economic opportunities that result in the conservation of natural resources. And the environment benefits the community and the locality through the basic concept of eco-tourism. The development of eco-tourism sites can therefore meet the needs of today's tourists and local owners while protecting and preserving opportunities for future generations. This includes managing resources to meet economic, social, and aesthetic needs while maintaining a cultural and ecological identity as well. The components of eco-tourism development are as follows: 1) Economy means tourism in Khao Yai National Park will help the economy in the community or in the province. Tourism in Khao Yai National Park can generate income for people in the community by selling souvenirs, taking tours, etc. Tourism in Khao Yai National Park will help create more local employment and accommodation entrepreneurs. Sightseeing buses in the vicinity have increased income from developing tourist attractions. 2) Environment: the development of tourist attractions in Khao Yai National Park will help to improve the natural environment. The development of tourist attractions in Khao Yai National Park will help increase forest areas in Thailand. The development of tourist attractions in Khao Yai National Park will help to provide fresh air. And the development of tourist attractions in Khao Yai National Park will help with forest conservation. 3) Society and culture mean the development of tourist attractions in Khao Yai National Park will help to lead a better community way of life. Tourism in Khao Yai National Park will make tourism in the new normal more secure. The development of tourist attractions in Khao Yai National Park will help change the number of consumers in line with the current situation. And the development of tourist attractions in Khao Yai National Park will help tourists reduce their concerns about tourism in the COVID-19 outbreak situation, and security means safeguarding the lives and property of tourists. Security concerning crime that will occur in tourist attractions, security concerning accidents or risks or dangers that will occur to tourists, and security from illnesses that may occur from the environment, weather conditions, and animals (Dutchanee Amphan and Surachet Chetamas, 2017).

The important factors for the development of eco-tourism destinations are: (Boonlert Jittangwatana, 2017) 1) Participation means the behavior of groups of people joining together in various activities, both directly and indirectly. in a way that jointly thinks together, decides together, and takes action to carry out activities in the community. Participate in monitoring, evaluation, and co-benefits in order to focus on the goals or objectives of oneself or society. 2) Promotion of tourism refers to the process of conducting activities between organizations responsible for travel with tourists. To attract more tourists to travel to tourist attractions. 3) Tourism management refers to the process of managing tourism that has an appropriate form of action. In the environment of that area, there are also goals that are consistent with principles, theories, and concepts that are appropriate. and 4) Tourist consumption behavior means the actions or expressions of persons directly related to the use of services in the tourism industry. Including the decision-making process that affects the performances on the tour.

Related research The research of Sirinan Pongnirandon (2016) has studied ways to develop the potential of tourism management in Wang Nam Khiao District. Nakhon Ratchasima Province The results showed that engagement is a factor in tourism promotion. Tourism management

and the consumption behavior of tourists have an influence on the development of tourism management potential in Wang Nam Khiao District. Nakhon Ratchasima Province. Pattarawee Thongthep's research (2015) studied the effectiveness of ecotourism development in Khao Yai National Park. Nakhon Ratchasima Province. The results showed that engagement is a factor in tourism promotion. Tourism management and the consumption behavior of tourists have an influence on the development of tourism management potential in Wang Nam Khiao District. Nakhon Ratchasima Province And the research results of Natnanan Khamthong (2018) have studied the guidelines for developing national parks into sustainable tourist destinations. The results showed that engagement is a factor in tourism promotion. Tourism management and the consumption behavior of tourists have a big influence on the development of national parks as sustainable tourism destinations.

According to the literature review, the following research hypothesis can be formulated:

H1 Participation, tourism promotion, tourist attraction management, and tourist consumption behavior affect the sustainable development of eco-tourism destinations in Khao Yai National Park.

From the literature review, the conceptual framework can be drawn as shown in Figure 1.

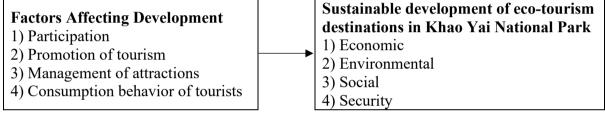


Figure 1 Conceptual Framework

RESEARCH METHODOLOGY

The population in this study was Tourists traveling in Khao Yai National Park and staying overnight from 1 night or more in the year 2017, the number of 2,200,000 people, the year 2018, the number of 2,080,000 people and the year 2019, the number of 2,180,000 people, a total of 6,460,000 people. (Nakhon Ratchasima Province Tourism, 2019) (Nakhon Ratchasima Province Tourism, 2021) and a sample of 400 people was obtained from the formula for calculating a sample of Yamane (Taro Yamane, 1973). The reliability was obtained at the 95% level with the stratified sampling.

The research tool was a questionnaire consisting of Part 1: The personal factors of the respondents were gender, age, level of education, occupation, and average monthly income. The questionnaires are selective questions. Part 2: Factors affecting development. The nature of the questionnaire is Likert Scale with 5 scoring criteria, namely, the highest equals 5 points, the high equals 4 points, the medium equals 4 points, the least equals 2 points and the least equals 1 point. Part 3: Sustainable development of eco-tourism destinations in Khao Yai National Park. The questionnaire is a Likert Scale with 5 scoring criteria with the highest equals 5 points, the high equals 4 points, the medium equals 4 points, the least equals 2 points and the least equals 1 point.

Before using data collection tools, the Index of item objective congruence (IOC) and questionnaire validity test via Cronbach's alpha were performed systematically. The examination found that the IOC was 0.832 and the Cronbach's alpha was 0.918, indicating that the research tool was of sufficient quality (Polit & Beck, 2006; Hair et al., 2012). To obtain this study data, questionnaires were sent to tourists traveling in Khao Yai National Park. The descriptive statistics used to analyze the data were frequency, percentage, mean, standard deviation, and multiple regression analysis.

RESEARCH RESULTS

- 1) Most of the respondents were male, 63 percent aged between 31-40 years old, 52 percent graduated with a bachelor's degree, 55 percent worked as employees of private companies and had an average monthly income of 20,000-30,000 baht, 60%.
- 2) Sustainable development of eco-tourism destinations Overall, the importance is at a high level. When considering each item, security has the highest average, followed by society and culture, environment, and economy, respectively, as shown in Table 1.

Table 1 Mean and standard deviation of sustainable ecotourism development

Aspect	Description	\overline{X}	S.D.	Interpretation of results
1)	Economic	3.88	0.95	Much
2)	Environmental	3.94	0.85	Much
3)	Social	4.01	0.86	Much
4)	Security	4.07	0.85	Much
Total		3.97	0.74	Much

3) The participation factor is valuable β equal to 0.323 promotion of tourism is valuable. β equal to 0.148 tourism management is valuable β equal to 0.143 and the consumption behavior of tourists are valuable β equal to 0.242 which showed that there was a statistically significant positive influence on sustainable ecotourism development at the level 0.05. By value Sig. equals to 0.000, 0.006, 0.004 and 0.000 which is consistent with the hypothesis set when analyzing the correlation coefficient (R) is equal to 0.815. This indicates that the group of independent variables is highly related to the dependent variable and the forecast coefficient is equal to 0.672 which shows that the group of independent variables can affect the sustainable development of eco-tourism destinations in 67.2%.

In order, the equation can be written as follows. $Y = 1.120 + 0.323X_1 + 0.242X_4 + 0.148X_2 + 0.142X_1$

From the analysis of the regression coefficients, it was found that participation factors, tourism promotion, tourist attraction management, and tourists' consumption behavior can together predict the sustainable development of eco-tourism destinations. The factor of the consumption behavior of tourists had the greatest effect on the forecast (Beta = 0.213) followed by participation (Beta = 0.140) tourism promotion (Beta = 0.093) and management of tourist attractions (Beta = 0.072). The details are shown in Table 2.

Table 2 Multiple regression analysis of factors influencing the sustainable development of ecotourism destinations

Factors	Unstandardized	l SE	Standardized	t	Sig.	
	(b)		(β)			
(Constant value)	1.120	0.107		9.638	0.000	
Participation	0.140	0.022	0.323	7.860*	0.000	
Promotion of tourism	0.093	0.043	0.148	2.412*	0.006	
Management of attractions	0.072	0.045	0.143	2.486*	0.004	
Consumption behavior of	0.213	0.022	0.242	4.138*	0.000	
tourists						
R = 0.815		Adjusted $R^2 = 0.672$				
$R^2 = 0.660$		SE = 0.139				

^{*} Statistical significance at the 0.05 level

DISCUSSION & CONCLUSION

Studying the development of sustainable eco-tourism in Khao Yai National Park, the researcher has brought the important issues to discuss the results according to the research objectives as follows.

- 1) Sustainable development of eco-tourism destinations Overall, the importance is at a high level. When considered individually, security has the highest average, followed by society and culture, the environment, and the economy, respectively. This may be due to all sectors, whether government, people, civil society. Society, tourist networks have participated in promoting tourism by developing tourist attractions in line with current tourism behavior that is more interested in ecotourism, consistent with Thanawit Phiandee's findings (2021) has studied the approaches for developing community-based tourism towards green tourist attractions with social responsibility: a case study of Ban Koh Kiam, Kantang Tai Sub-district, Kantang District, Trang Province. The research results showed that the development of community-based tourism towards green tourist attractions with social responsibility was at a high level.
- 2) Participation, tourism promotion, tourist attraction management, and consumption behavior of tourists have an influence on the development of sustainable eco-tourism at 67.2 percent. Changing tourism consumption behavior Give importance to the participation of relevant parties to play a role in the development of tourist attractions to be more sustainable. In addition, government agencies and social agencies have jointly promoted tourism in various fields as well as managed tourist attractions to better meet the needs of tourists. And consumers have travel behaviors that are aware of sustainable ecotourism, thus resulting in the development of more sustainable ecotourism destinations. Consistent with the research results of Ratree Ungcharoen (2017), she has studied the potential of ecotourism in Samut Sakhon Province. The results showed that participation, tourism promotion, attraction management, and tourist consumption behavior.

REFERENCES

- Nattanun Khamthong. (2018). Guidelines for developing Khao Yai National Park as a sustainable tourist destination. *Environmental Journal*, 22(1), 16-24.
- Rachanee Emphan and Surachet Chettamas. (2017). *Thai Ecotourism*. Bangkok: Kasetsart University.
- Thanawit Piandee. (2021). Guidelines for Community-Based Tourism Development towards Green Tourist Attractions with Social Responsibility: A Case Study of Ban Ko Khiam. Kantang Tai Sub-district, Kantang District, Trang Province. *Journal of Political Science Suan Sunandha Rajabhat University*, 4(1), 24-38.
- Boonlert Chittangwatana. (2017). Sustainable Tourism Development. Bangkok press and design.
- Pathompat Prombutr. (2019). Guidelines for Sustainable Tourism Promotion of Khao Sok National Park Visitor Center, Ta Khun District, Surat Thani Province. *School of Administrative Studies Academic Journal*, 2(2), 15-23.
- Patarawee Thongthep. (2015). Effectiveness of ecotourism development in Khao Yai National Park. *Nakhon Ratchasima Province Journal of Public Administration*, 8(2), 45-59.
- Sirinan Phongnirundorn. (2016). Guidelines for developing the potential of tourism management in Wang Nam Khiao District. *Nakhon Ratchasima Province Journal of Graduate School of Management Studies Khon Kaen University*, 9(1), 52 -67.
- Ceballos Lascurain. (2010). Tourism, eco-tourism and protected areas. In Kusler, (ed.) Ecotourism and Resource Conservation. Vol. 1. Eco-tourism and resource conservation project.

- Elizabeth Boo. (2008). *Ecotourism: The Potentials and Pitfalls*. Washington D.C.: World Wildlife Fund-US.
- Hair, J., Sarstedt, M., Ringle, C., & Mena, J. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. Journal of the Academy of Marketing Science, 40(3), 414-433.
- Polit, D., & Beck, C. (2006). The content validity index: Are you sure you know what's being reported? Critique and recommendations. *Research in Nursing & Health*, 29(5), 489-497.
- The Common wealth Department of Tourism. (2002). Tourism Australia Passport to growth, A National Tourism Strategy. *Canberra*, *Australia*: *Commonwealth of Australia*, 47.
- The Ecotourism Society. (2005). The Ecotourism Society's Definition. *The Ecotourism Society Newsletter*.
- Yamane, Taro. (1973). *Statistics: An introductory analysis*. (2nd ed.). New York: Harper and Row.

Data Availability Statement: The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

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