Visitor Management for Ecotourism Development at World Heritage Site: Case Study of Khao Yai National Park, Thailand

Bangkok, 2011

Author: Wiwik Mahdayani
Design: Juang Solala Laiya

This research has been conducted as part of Asia Fellow Award activity, administered by Asian Scholarship Foundation, based in Bangkok, Thailand. Asia Fellow is an award for Asian professionals, scholars, researchers or academicians to carry out the project based on their expertise in a participating country within Asia other than their own.

All the photos in this report were taken by the author at Khao Yai National Park.

Printed and published by DESMA Center
Acknowledgements

The author would like to thank all who contributed to this publication:

Asian Scholarship Foundation for facilitating full funding support from Ford Foundation, Dr. Lourdes G. Salvador, Somkamol Yongkrittaya and Kunaporn Pathawaro who provided assistances and all facilitation pre, during and post-research;
Assoc. Prof. Yaowalark Sukthana and Kaewta Muangasame of Travel Industry Management, Mahidol University International College as host institution for providing administrations and logistic assistance during the research;
Preecha Ongprasert of Royal Forest Department; Peeranuch Dulkul Kapelle from Department of National Parks, Wildlife and Plant Conservation;
Manoch Kampanalangarn, Superintendent of Khao Yai National Park, and its Research Division, Banloo Panklang and Jhutamas Maisook; All stakeholders who provided publications, information and assistance: Montira Horayangura Unakul and Timothy Curtis (UNESCO Bangkok); Watcharee Churugsa, Charuchet Ruangsuwan, Sirada Naipongsri (Tourism Authority Thailand); Sirinart Theenanolondh (The Ministry of Tourism and Sports); Achara Vorradhama-Pinich, Sasithorn Tangthienkul, Urupa Faiupara (PTTEP); Tim Redford (FREELAND); Prof. Surachet Chettamart (National Parks Association of Thailand); Nipatpong Chuangchuen (Thai Ecotourism and Adventure Travel Association); Dr. Monina Uriarte (ASEAN Center for Biodiversity); tour operators and guides who provide tours to Khao Yai National Park from Bangkok, Pattaya, Pak Chong; and thank you for special assistance received from Pornpan Kanjanatiwat and Kitiwuth Kruengted.
Special thanks for assistances and facilities received from UNESCO Office Jakarta: Suer Suryadi, Koen Meyers, and Masanori Nagaoka; The Indonesian Ministry of Culture and Tourism: Drs. I Gusti Putu Laksaguna, CHA. M.Sc and Ir. Rizki Handayani, MBIT.
Finally, thank you for Dr. Boedihartoono and Dr. Jajang Gunawijaya from University of Indonesia; DESMA Center team and Juang Solala Laiya,
Abstract

This research describes about visitor management at Khao Yai National Park (KYNP), a World Heritage Site (WHS) and ASEAN Heritage Park (AHP) that receives progressive and fluctuate visitors since its establishment. The research focus on how KYNP provides quality service to improve visitors’ experience while maintaining management objectives of the park. The research also covers level of visitor satisfaction towards information and service provided, and stakeholder roles to conserve values of the park and how they contribute to visitor management process. The research presents results of observation, interviews to stakeholders and visitors, together with data collection via questionnaires that have been conducted inside the park. The data of 210 questionnaires collected from international and domestic visitors at KYNP includes interpretation regarding all aspects of the park, that information can effectively increase the awareness of visitors towards wildlife, important environment aspects of the park, and possibly assist the park authorities to manage visitor behavior in KYNP. The research found that generally known the visit to WHS is generated by its status is not the case of most visitors in KYNP. Most visitors are satisfied with the service provided but other special case of dissatisfaction also found in this research. The research also presents discussion and other important issues on capacity building and integrated promotion as strategies towards visitor management at KYNP.

Keywords: Visitor Management, Ecotourism, Satisfaction level, Stakeholders roles, Natural World Heritage Site, Khao Yai National Park, Thailand

Table of Contents

Introduction .................................................................................................. 6
Background ........................................................................................................ 6
Objectives and Expected Outputs .................................................................... 10
About Khao Yai National Park ........................................................................ 10
Methodology .................................................................................................... 14
Visitor Management at Khao Yai National Park ............................................ 16
Tourism at Khao Yai National Park ................................................................. 16
Tourism Attractions ....................................................................................... 18
Visitor Center ............................................................................................... 18
Waterfalls ........................................................................................................ 19
Trekking at Nature Trails ............................................................................... 19
Birdwatching ................................................................................................. 21
Camping .......................................................................................................... 22
Night Safari .................................................................................................... 22
View point Visits ........................................................................................... 23
Accessibility ..................................................................................................... 24
Supporting facilities ....................................................................................... 25
Accommodation .............................................................................................. 26
Education and Interpretation ........................................................................ 29
Visitors ........................................................................................................... 30
Current Situation of Visitor Management at Khao Yai National Park ............ 31
Satisfaction Level of Visitors ........................................................................... 39
Stakeholders and Their Roles ....................................................................... 42
Government ................................................................................................. 42
International stakeholders ............................................................................ 43
Regional stakeholders .................................................................................. 44
National stakeholders ................................................................................... 44
Private Sectors .............................................................................................. 46
Strategies towards Visitor Management at Khao Yai National Park for Ecotourism Development ................................................................. 47
Challenges Faced ............................................................................................ 47
Strategies ........................................................................................................ 48
References .................................................................................................... 50
Introduction

Ecotourism has been introduced as part of alternative tourism to respond the negative impact of mass tourism. Inskeep (1991) mentioned that forms of alternative tourism relate to facilities and activities that allow visitors to directly experience and respect the host culture and environment. This alternative tourism, including ecotourism offers the various ways to travel differently than the conventional one such as nature interpretation to educate visitors and active experience for visitors.

Current visitors are becoming more concern on the local people’s welfare, environmental damage, social change and contribution to the place they visit as the impact of their visits. They put more emphasis to reduce negative impact of their visit to the sites and people. Therefore, demand for service and quality of experience is highly concerned by visitors, and values of attractions (cultural and environmental) in tourism destinations are required to meet visitor’s needs.

Ecotourism, which was introduced in the 1990s, has defined by The International Ecotourism Society (1993), as responsible travel to natural areas which conserves the environment and improves the welfare of local people. Ecotourism is expected to encourage more responsible behavior and social responsibility towards environment and local people.

As part of encouragement effort for tourism, ecotourism has been promoted and introduced for tourism development in Thailand protected areas, including national park (Emphandhu, 2002 in Emphandhu and Chettamart, 2004). A “Visit Park Thailand 2000” campaign of Royal Forest Department was an initial “official” effort to open protected areas for tourism. This campaign recognized as a response to fast growing demand of nature-based tourism and emerging trend of protected area development in Thailand (ICEM, 2003). Furthermore, a series of National Ecotourism Action Plan 2002-2006, management guideline and the Thailand National Ecotourism Policy has also been produced by Tourism Authority Thailand (TAT). It has been launched as a framework of ecotourism focusing on conservation and benefits to local communities to support the ecotourism campaign and activities in the country. As part of actively promoting ecotourism and green tourism, in 2011 TAT highlights on strategic plan for promoting more ecotourism products. The
initial initiative started from signing agreement of “Declaration of Environment Protection for Sustainable Tourism” among government and private agencies from five provinces: Bangkok, Chiang Mai, Nakhon Ratchasima, Chon Buri, and Surat Thani. TAT also provides awareness and promotion materials regarding ecotourism (W. Churugsa, 2010, personal communication).

Ecotourism euphoria has generated a visit to protected areas, particularly to national park. Tendency of this visit has been growing rapidly as many tour operators in Thailand also promote tour packages to visit national parks. National parks have become primary destinations for nature-based tourism activities and promotion efforts.

This research examined the visitor management at Khao Yai National Park (KYNP) that receive progressive and fluctuate visitors since its establishment. KYNP is one of the most popular national parks for international and domestic visitors in Thailand. KYNP has been visited by 821,793 visitors in 2009, intensively increased over 64% since 2006 (KYNP Research Division, 2010). Easy access and less than 3 hours driving from Bangkok, the capital city, and close to other major cities in surrounding provinces of Thailand have been implicated to the significant visitation number to the park. KYNP faced the challenges to encounter visitors’ behavior in the park with limited capacity of the park’s staff. Therefore, this research focuses on how KYNP provides quality service to improve experience of visitors while maintaining management objectives of the park in term of conservation.

As one component of broader destination management process, tourism destinations should apply an effective visitor management to achieve better service quality, experience and values of attractions. McArthur (1993) in Van der Donk (2000) defined visitor management as the management of visitors in a manner which maximizes the quality of visitor experience while assisting achievement of the site’s overall management objectives.

World Tourism Organization (1997) underlined that visitor management is designed to control the numbers and flow of visitors as well as their activities. Visitor flow works by restriction to certain areas, establish pathway through areas, and controlling the time of visits. Visitor management is also a means to minimize the impact of visitors in a tourism destination (Mason, 2006). The important of visitor management noted by London Development Agency (2009) that highlights effective visitor management will: contribute to the visitor’s understanding and appreciation of the destination; reduce damage to sensitive sites and localities; tackle issues that may be affecting the quality of the visitor experience and the quality of life for local people; attract and disperse visitors within the destination to spread the economic benefits more widely. Visitor management tools such as interpretation to educate visitors (Mason, 2003 in Mason 2006), facilities and promotion are needed to control the visitor behavior in a destination, meanwhile provide service and improve visitor’s experience. Therefore, understanding and implementing an effective visitor management is crucial for ecotourism in conservation area such as KYNP.

Furthermore, abundant natural resources existence of KYNP has attracted areas around the park to set up tourism business range from restaurants, farms, wineries, mountain resorts, hotels, camping sites, tour and travel agents, tour packages and elephant riding. Therefore,
the research area is limited inside the boundary of KYNP, including from Pak Chong gate, Nakhon Ratchasima Province, to Prachinburi Gate, Prachinburi Province. However, some of tourism players in Pak Chong were interviewed to get more information on tourism market in KYNP.

The research was conducted between August 2010 and March 2011, with the following components: (1) Preparation, including administration and logistic issues, coordination and meetings with key persons (August-September 2010); (2) Surveys, interviews, and data collection (August 2010 to January 2011); and (3) Analysis and reporting within February to March 2011.

The component of research also covers level of visitor satisfaction towards information and service provided, and stakeholder roles to conserve values of attractions in the park as contribution for visitor management process. The research presents results of observation and survey series carried out at KYNP, interviews to key stakeholders and visitors, together with questionnaires that have been conducted inside the park, then followed by a discussion and strategies.

The objective of the research is to understand how visitor management developed in KYNP, how park authorities deal with visitor management issues and develop visitor management strategies to improve service and experience of visitors, and how stakeholders play their roles to conserve park’s values of attractions.

The expected outputs of the study to be achieved

- Model of the visitor management in KYNP;
- Satisfaction’s level of international and domestic visitors toward service quality and experience in the park;
- Stakeholders and their roles to conserve the values of attractions in the park and contributions to visitor management in the park;
- Strategies towards KYNP’s visitor management for ecotourism development.

The Royal Thai Government (2004), a national park is defined as “any land or natural feature which is of interest to be maintained with a view to preserving it for the benefit of public education and pleasure, with the provision that such land is not owned or legally possessed by any person other than a public body”. National parks in Thailand have been established for a number basic functions including: preservation of biodiversity and ecosystems, research and education, recreation and tourism.

Forested area in Thailand has decreased from 27,362,900 hectare in 1961 to 15,865,260 hectare in 2006. However, up to 2010, 110 national parks have covering more than 10 % of the total Kingdom area while there were only 16 national parks covering less than 6 % in 1979 (Royal Forest Department, 2009).

Khao Yai, meaning “Big Mountain” located in four provinces of Thailand: Saraburi, Nakhon Nayok, Nakhon Ratchasima, and Prachinburi. Department of National Parks, Wildlife and Plant Conservation (DNP, 2006) stated that topography of the park varies with the highest peaks, Khao Rom, reaching about 1,351 meters as covering various habitats.
including dry evergreen forests, dry deciduous forest, tropical moist evergreen forest, and hill evergreen forest to grasslands. Therefore, KYNP has the important tropical forest ecosystems, which inhabit by at least 296 wildlife species including 31 mammal species, 221 bird species, 32 reptile species, and 12 amphibian species. Some of charismatic species can be found in KYNP are Asian elephants (Elephas maximus), white-handed gibbons (Hylobates lar), pilated gibbons (Hylobates pileatus), tigers (Panthera tigris), gaur (Bos gaurus), Great Hornbill (Buceros bicornis) (The Royal Thai Government, 2004). KYNP also provides important environmental services such as water for the region, e.g. Prachin Buri River, Nakhon Nayok River, Lam Ta Kong River, and Muak Lek Stream.

Due to its rich ecosystems and biological diversity, KYNP declared as a UNESCO Natural World Heritage Site in July 2005 together with Thap Lan National Park, Pang Sida National Park, Ta Phraya National Park and Dong Yai Wildlife Sanctuary as a Dong Phayayen Khao Yai - Forest Complex (DPKY-FC). The designation was due to its outstanding values under the criteria (x) which is to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation (IUCN report, 2005).

The DPKY-FC inscription as WHS has long history following its nomination in 1991 has been deferred, and Thailand government was requested to provide a better assessment of the Park’s international significance; elaborate the site’s potential links with adjacent parks with a view to increasing the size of the nominated area; and clarify their intention with regard to the construction of dams within the Park boundaries”. In 2008, the World Heritage Committee has encouraged Thailand government to manage the high visitor levels by integrating visitor and tourism planning into the overall management of the property, and requested to complete the Environmental Impact Assessment (EIA) for the widening of highway 304 (the road separated KYNP and Thap Lan National Park) and for the design of wildlife corridors (IUCN report, 2005; DNP, 2006).

KYNP also declared as ASEAN Heritage Park (AHP), regionally representative sites, in November 1984. AHP is “Protected areas of high conservation importance, preserving in total a complete spectrum of representative ecosystems of the ASEAN region”. AHP is nominated by national government, and ASEAN Seniors Officers on the Environment (ASOEN) through approval of the Environment Ministers for listing, subsequently designated by ASEAN Secretariat (ASEAN Center for Biodiversity, 2010).

In term of zoning system, KYNP divided six zones of the park’s total area for difference basic purposes: tourism and outdoor recreation zone (12%), primitive zone (79%), intensive use zone (2%), strict nature reserve zone (2%), special use zone (1%), and recovery zone (4%) (Research Division KYNP, 2010).
This study employed three methods, including observation, interviews, and questionnaires. Surveys for observation was conducted to achieve outputs 1 and 3, interview to stakeholders was carried out to achieve outputs 1 and 3, questionnaire and further interview was conducted to achieve output 1 and 2.

Five visits were conducted during this study to observe several key attractions in the park within August 2010 to January 2011. First visit (25-26 Aug 2010), that was carried out as preliminary assessment and observation to understand KYNP and the surrounding area. Second visit (25-30 Sept 2010) was to conduct assessment on surrounding environment of the park, facilities, infrastructure, physical condition of the area, and all service provided: accommodation, food and beverage service, supporting facilities (toilet, park agent for night safari tour and accommodation) and promotion activities. This visit was also to observe visitors’ activity pattern (waterfalls visit, trekking activities, night safaris and camping). During this visit, main tourism activities outside the park have also been assessed to get impression on activities in the surrounding area within Nakhon Ratchasima, Nakhon Nayok and Prachinburi provinces. The interview has also been conducted to business outside the park: tours agents, accommodations and restaurant. In this visits, the nature trails of km 33 – Nong Pak Chi observation tower have also been assessed in collaboration with park’s staff, and additional assessment to Kong Kaew Nature trail. Third visit (22-25 Oct 2010) was carried out as follow up assessment to the previous visit (2nd site visit) in KYNP and the try-out questionnaire to get impression whether respondents can easily understand the questions. For 20 tested-questionnaires and follow-up discussion has been conducted, for Thai and international visitors in the same proportion. Based on their input, questionnaire was modified to achieve the outputs. The questions were developed from various researches related satisfaction level, visitor management, and based on observation in the park and interview with the stakeholders towards visitors’ activities (weekenders and week day visitors) also domestic and international visitors’ activity pattern. Fourth visit (25 Nov-4 Dec 2010) was to collect the data by disseminating questionnaire and conducted follow up discussions/interview to selected visitors. Final assessment to attractions, interpretation materials, and service in the park was also carried out. In this visit, the assessment via tour package tried-out to nature trail km 33 – Nong Pak Chi tower (with different route to the previous assessment) and assessment to nature trail of Pha Kluay May Camp Site – Heo Suwat waterfall were also conducted. The time of fourth visit has been selected carefully to obtain the dynamic and various data. Week days visitors, weekend visitors and long weekend visitors were met to get idea about the profile and travel pattern within the park. Fifth visit (28-29 Jan 2011) was conducted as final observation to the area and activities during the low tourism season.

In-depth Interviews to obtain an overview of stakeholders’ roles, activities and programmes as well as all aspects related to visitor management in KYNP, were carried out from August 2010 to February 2011 to DNP, RDF, UNESCO Bangkok, FREELAND foundation, CSR team of PTT Exploration and Production Public (PTTEP), Tourism Authority Thailand (TAT), ASEAN Center for Biodiversity Manila Office (via email), National Parks Association for Thailand (NPAT), Thai Ecotourism and Adventure Association (TEATA), KYNP staff: superintendent of the park, Research Division, visitor center and accommodation reservation office, Welfare office, park rangers, camping sites staff, food and beverage center, and also tour operators in Bangkok selling KYNP tour packages, tour operator staff/guides from Pak Chong (Greenleaf, Khao Yai Garden), and guides from Bangkok and Pattaya also interviewed in the park.
Visitor Management at Khao Yai National Park

The 210 questionnaires were designed in English for International visitors and Thai language for domestic. Dissemination has been done with the composition of 75 questionnaires for international visitors and 125 for Thai. Source in determining number of questionnaire for this research was based on the data gathered from DNP and Research Division of KYNP that shown average composition of international and domestic visitors was 75%: 25% during the last 5 years. Ten questionnaires were not completely filled out, therefore only 200 questionnaires were analyzed. Both Thai and foreigners were involved in a follow-up discussion after they filled the questionnaires. A follow-up interview was carried out to 60 international visitors and 100 domestic visitors. The questionnaires were divided into three parts: the profile of visitors, questions regarding visitor management, and Likert scale questions to find out visitors’ satisfaction level.

The sites selected for data collection have been identified based on survey visits, interview and observations in order to obtain wide and broader range of respondents. The questionnaire handed out to respondents at (1) accommodation: Camping ground, Surasawadhi Zone 3 and Thanarat Zone; (2) Attractions: Visitor center, Heuw Suwat waterfall, Nong Pak Chi Observation tower, km 33 nature trail, camping ground of Pha Klui Mai and Lam Ta Khong and (3) Food and Beverage service: Park’s canteen in front of visitor center.

In order to avoid bias of data, respondents were selected based on number of group and places of data taken. As an illustration, only one person as representative of couple respondents was asked to fill the questionnaire; 2 respondents were selected from group of 10 people, and up to 5 respondents from group of more than 30 people. Focus was also given to individual visitors and tour groups. This chapter will discuss all aspects of the park followed by the result of questionnaire and interview.

Based on observation, reading promotion materials from TAT province and national level, tourism magazines, websites and park’s map, KYNP offers various attractions for week-end and week-day visitors range from camping, night safari, bicycling, bird watching, hiking/trekking at nature trails, waterfalls walk, beautiful scenery and wildlife in the park. KYNP received those who are wearing high heels to serious hiking shoes, those who love the wildlife, and those who take the scenes for movie and pre-wedding shots in the park. KYNP is also paradise for school groups learning the nature and students from throughout Thailand and many countries in the world. Thus, based on observation, interview to visitors and questionnaire, the most visited places in the park are visitor center, Heo Suwat and Heo Narok waterfall, Lam Tha Kong and Pha Klui Mai camping sites, Pha Diao Dai and km 30 view point. As these sites have received aggressive promotion and easily reach from anywere.

KYNP is not only famous for domestic visitors in Thailand, but also has gained international recognition. Especially after Forbes has named this park as one of the top destinations for Southeast Asia ecotourism, and worldwide famous movie “the Beach” has taken scenes in this park, showing Heo Suwat waterfall to the world.

This research confirmed that KYNP also blesses the adjacent areas that providing attractions such as luxury hotels, golf courses, elephant trekking, winery, shopping and culinary tours. The other important tourists attractions exist within Nakhon Ratchasima Province are important ex-Khmer ruins Phimai Historical Park and Farm Chokchai. In Prachinburi Province, Thap Lan National Park and Buddha footprint are the major attractions; meanwhile in Saraburi the visitors come to vineyards and sunflowers fields. The tourists visit Khlong Tha Dan Dam, Sarika and Nang Rong Waterfall in Nakhon Nayok Province.
The urban cities weekenders from Bangkok and places around also spend week end along Pak Chong to Wang Nam Kheo where all the cafes, restaurants and resorts line up as well as shopping in Prachinburi area for herbs, fresh fruits and vegetables. Palio - a shopping center with a concept of little Italy is favorite weekend spot at Pak Chong. Other activities at the boundary area are Gaur watching at Khao Phaeng Ma, rafting at Kaeng Hin Phoeng, Takho waterfall visit, and adventurous water sports at Sarika.

**Tourism Attractions**

KYNP provides broad opportunities to see wide range of wildlife in its habitat. Sambar deer, barking deer, monkeys, gibbons, elephants, hornbills, porcupine, black squirrel, binturong, civets, and many kinds of birds could be spotted easily in the park. KYNP also represents vast grassland, secondary forest, dry evergreen forest, lowland scrub, and mixed deciduous forest to be seen (observation during research; DNP, 2006). Major tourism attractions within the park are briefly described below:

**Visitor Center**

Based on observation, visitor center provides various displays about all aspects of KYNP in English and Thai. Mainly displays look dull and shade, with information need to revive. Most visitors who come from Pak Chong Gate start their activity from visitor center as this is the first center found by visitors from the main road. The large center equips with a souvenir shop, a meeting room that can accommodate up to 150 people, toilet service, and spacious parking lot. Tourism map of KYNP in English and Thai for visitors distribute via visitor center.

**Waterfalls**

The forest in the park is rich with water resources that flow and provide life for surrounding region, and at the same time becoming the attractions for visitors. Based on observation, Major waterfalls for weekenders and trekkers are Heo Suwat, Heo Narok and Pha Klui Mai. Other waterfalls dotted at the boundary of KYNP, several need hours and days trekking to approach. Heo Suwat is one of the most visited sites in the park as relatively easy to access and there is a route via nature trail from Pha Klui Mai waterfall. The student groups and tour groups always visit this site as one of their activity and trek route. Heo Suwat is also easy to reach by two camping sites: Lam Tha Kong and Pha Kluiy Mai, and also other attractions in the park. While Heo Narok, located relatively long distance from major attractions in the park. Both domestic and foreign visitors come to the major waterfalls mentioned.

**Trekking at Nature Trails**

Based on information at visitor center, KYNP has 5 nature trails along at least 22 km with walking time range from 1.5 to 5 hours. The trails have medium to easy level and marked in colors along the routes. Based on observation, it is relatively easy to follow though some colors marks in almost all trails are invisible and nearly fade away.
Based on observation and interview with the tour guides and park staff, the most visited nature trail is a short 3 km nature trail with only 1.5 – 2 hours walking from km 33 to Nong Pak Chi Observation tower. The travel agents’ package tour, school students, and individual visitors with the park’s ranger use to take this trail. Mainly because it is relatively easy short trails to hike and broad opportunity to spot wildlife such as Great hornbills, green viper, white handed gibbons, pileated gibbons, enormous species of birds, other surprisingly animals and plants. This trail provides quite picturesque landscape from green rainforest to grassland area by passing elephant salt lick (where their feces often seen) before arriving to Nong Pak Chi observation tower. The observation tower is facing the lake where boar, lizards, and birds play in the area. Some visitors will visit only Nong Pak Chi Observation Tower to observe animals. At the time of writing, this route has already been finished to renovate and installed some interpretation boards on several spots along the route. This collaboration project is carried out with PTTEP (B. Panklang, 2011, personal communication). Other famous trail is Pha Kluay Mai Camp Site to Heo Suwat Waterfall which has 3 km long with 1.5 to 2 hours walking distance. The trail starts at souvenir shop with invisible marks, down to the river before reaching the waterfall and passing the bamboo forest. The trail also located along the calm river where crocodiles are believed to stay there. According to park’s staff, less famous trails are Visitor center/Dong Tiew to Nong Pak Chi Observation Tower that has 5.4 km with more than 3 hours walking distance. It is also possible to take the direction to Wang Jumpee, which is shorter route; Visitor center/Dong Tiew to Mo Sing To Observation Tower along 2.7 km with up to 2 hours walking distance. This trek cross the grassland and secondary forest before reaching Sai Sorn Reservoir; and Visitor Center/Kong Kaew to Heo Suwat Waterfall along 8 km with up to 5 hours walking distance. The trail starts at hanging bridge behind the Visitor center with many animal cross along the trail. However, based on observation, many visitors only took the shortest route of this trail because it was impractical-to-follow trail and has very minimal signage.

Apart from the international individual visitors and tour groups, or school students, most domestic visitors start their hiking and trekking to KYNP area from Khlong Pla Kang and Pha Kradat where the park ranger stations located. It is easier for domestic visitors to arrange the trek with rangers. These two locations are situated at the park boundary and not famous for international visitors. Language barrier would be an obstacle for foreigners (N. Chuanchuen, 2011, personal communication). Other famous start for domestic visitors is route from Nang Rong waterfall at Nakhon Nayok range from route for family to serious trekker (ICEM, 2003).

Birdwatching

As KYNP is home for 221 bird species, the park is paradise for birdwatchers. Based on observation, birdwatchers and photographers generally look for rare birds. Pied mynah almost seen along the trail on km33 to Nong Pak Chi Observation Tower. Highlight of the park are great and pied hornbills, relatively easy to spot, where in other protected areas in Thailand are difficult to observe (S. Sukanya, 2010, personal communication). Both domestic and international visitors do this activity in the park.
Camping

Based on observation, scenic landscape and cool weather particularly in the winter have attracted visitors. They may stay for several days off-weekend. During week end, family, couple, group of friends, individual visitors, gather and build their tents on two camping ground area in KYNP: Pha Kluay Mai and Lam Ta Kong camping sites. Longer holiday like King’s birthday and New Year will generate more domestic visitors doing camping. Thus, KYNP can’t accommodate more campers during these two major holidays. The reallocation area is provided for the visitors who can’t camp on these two sites. The majority of visitors come for enjoying the good weather and environment, barbeque, cooking and eating, singing, or merely doing nothing. Both domestic and foreigner visitors do this activity in the park.

Night Safari

Based on observation, the park (Welfare section) arranges Night Safari for groups using the park’s trucks following specific route in the evening. The vehicle uses spotlight searching for animals in the darkness. Sambar deer, barking deer, porcupine, and civet are most common animals spotted, with occasionally seen elephants for lucky visitors. Both domestic and foreigner visitors do this activity in the park. In the past, reservation without showing often happened and caused serious visitors couldn’t take the trip as limited seat in the trucks. The Welfare section of the park then changed the regulation that the person or representatives of persons should reserve directly (B. Panklang, 2010, Personal communication).

KYNP is located at mountainous area of Phanom Dong Rak with five mountain cones of Khao Leam (1,326 m asl), Khao Kampang (875 m asl), Khao Kaew (1,292 m asl), Khao Sam Roi Yod (1,142 m asl) and the highest peak Khao Rom is at 1,351 m asl (DNP, 2006). This mountainous area provides the opportunity to view the far away landscape from above. Based on observation, the park has four main view points where the visitors stop and enjoy beautiful scenery: km 30 view point (the first view point after the park’s entrance from Pak Chong gate), km 18 viewpoint (the first viewpoint after the park’s entrance from Prachin Buri gate), and Khao Khiao viewpoint, where situated just by the road. Also the highlight of the park: Pha Dio Dai (means lonely cliff) view point, where the visitors should take a short 15 minutes walk into the forest to discover an impressive view over Khao Rom and meadow hilly area down. Both domestic and foreigner visitors do this activity in the park.
Accessibility

There are two entrances of the park, Pak Chong gate and Prachin Buri gate. Pak Chong gate is located 210 km from Bangkok via Rangsit, Sara Buri and Pak Chong. The other gate is Prachin Buri, located 202 km from Bangkok via Rangsit, Ongkharak, Nakhon Nayok, and Prachin Buri. Although Pak Chong gate has longer distance than Prachin Buri gate from Bangkok, but Pak Chong gate is more famous as more attractions offered along the road.

The road to and inside the park are definitely in good condition and also can be easily reached from towns of surrounding provinces. However, KYNP is not public transport-friendly. Private or rented car would be the most convenient way to go. Van is usually used for booked-tour from Bangkok or Pak Chong area. Most of resorts and hotels around KYNP provide guide and tour service to the park. Train for about 3.5 hours long departs more than 5 times a day from Hua Lamphong Bangkok and stop at Pak Chong.

There is bus service from Mo Chit bus station (northern station) to Pak Chong and followed by taking song taew (local mini bus, a covered pick-up truck) to the park’s gate. From here, visitors should hitchhike to go inside the park within a distance of 40 minutes driving to the visitor center. It is consequently impractical to walk to center of activities in the park. Most foreign visitors come with public transport, and others come with van from tour arrangement to the park. Domestic visitors use their private vehicle: car and motorcycle.

Supporting facilities

Based on observation, KYNP, as a world class national park, has provided quality supporting facilities for the visitors. However, the only nature trail in the park provides foot path/harden path is the route from visitor center/Kong Kaew area. Other tourism attraction such as Pha Diao Dai view point and another four nature trails provide the “real” natural paths without hardening. Hanging bridges are placed at visitor center and Kong Kaew waterfall to connect area separated by the river. Cycling tracks are lining up along the good road in the park, share with other vehicles.

Major attractions in the park such as Chao Pho Khao Yai spirit house, km 30 view point, Nong Pak Chi observation tower, Pha Dio Dai View Point, and Khao Khiao viewpoint provide large parking area. Km 30 view point and Khao Khiao viewpoint have well maintained balcony to see scenic landscape.

Visitor center also has large parking area, numerous toilet services, a large dining hall provided food and beverage service for up to 80 seats adjacent to visitor center, and souvenir shop. At the time of writing this report, the souvenir shop is temporarily close down as part of visitor center’s project renovation with PTTEP. The renovation of visitor center exterior is currently ongoing and projected to be finished at the end of 2011. Other collaboration project with PTTEP is to renovate the trail at Kong Kaew and Pha Diao Dai, which is currently ongoing (B. Panklang, 2010, personal communication).

Heo Suwat waterfall, provide large parking area, twenty-two toilet rooms, a cafeteria provides food and beverage service for up to 96 seats, and a souvenir shop. This site also provides an activity area and view point balcony to look down to waterfall.

Further up close to Prachin Buri gate, Heo Narok Waterfall, also offer large parking area, a souvenir shop, thirteen rooms toilets, activity area, and a food center that can accommodate up to 96 seats.
Heo Narok has four cascades and there is a one km well maintained foot path going up and down to the first cascade of waterfall. Further trek to see all levels of waterfall should follow nature trail up to the hill and required accompanied by ranger. Although Heo Narok is one of the most popular sites in the park, but only those who have vehicle can access to the waterfall because of its location.

Facilities at camping site, Lam Tha Kong and Pha Kluay Mai will be explained on the sub chapter of accommodation below.

Accommodation

KYNP provides accommodation in four zones within the park that can accommodate on total up to 517 persons (personal counting based on all availability rooms on DNP website, 2011), not include two camping sites of Lam Tha Khong (accommodate up to 600 persons) and Pha Kluay Mai that can accommodate up to 800 persons (Camping sites staff, 2010, personal communication). KYNP also provides extra zone for camping that can accommodate up to 1000 – 1500 persons in highest season during King’s Birthday on October and New Year on December-January (Camping sites staff, 2010, personal communication).

Based on observation, the accommodation offers various rate, from THB 800 to THB 3600 (rate 2011), based on its type. At Kong Kaew Zone 1 for example, there are youth hostel that can lodge 20, 28, 35 and 50 persons beside four bungalows that can accommodate eight persons.

There is a meeting room within youth hostel building to facilitate the student activities. Six bungalows that can lodge six to eight persons are located at zone 2. Surasawadee camp zone 3 has twenty terrace houses that can lodge two persons in each house, and the rest is six buildings of youth hostel for 36 persons. Another complex is Thanarat Zone 4, where fifteen bungalows and terrace houses accommodate two, four, to six persons are located.

Lam Tha Kong camping site offers well maintain facilities like large parking area (3,348 m²), camping site (7,110 m²), a cafeteria provides food and beverage service for up to 78 seats, toilet and shower service with 41 rooms (Research Division KYNP, 2010).

Based on observation, Lam Tha Kong divides 6 areas within one zone (Site A to F) that can accommodate up to 600 persons. Lam Tha Kong has reception office for hiring equipment range from tent for 2,4,5,8 persons; sleeping bag, pillow, blanket, mattress, stove/anglo, charcoal,
sieve and iron plate. The camping site opening hours start at 6 am and close on 10 pm. There are 12 staffs working at this area. The visitor at camp site is charged THB 30 for adult and THB 10 for child and student (Lam Tha Kong staff, 2010, personal communication).

Further up on the way to Heo Suwat Waterfall, Pha Kluay Mai camping site offers parking area (4,000 m²), camping site (6,441 m²), a cafeteria provides food and beverage service for up to 78 seats, toilet and shower service with 38 rooms (Research Division KYNP, 2010).

Although Pha Kluay Mai has smaller camping site compared to Lam Tha Kong, it can accommodate up to 800 persons as it is divided 6 areas within two separated zone (Site A to F). There are eleven staff working at this camp site and additional 20 staff during peak season on October and New Year holiday. Opening hours and other hired facilities provided are the same with those at Lam Tha Kong (Pha Kluay Mai staff, 2010, personal communication). Pha Kluay Mai camping site also provides an open air amphitheater in the area.

Based on observation, the park requests reservation made via internet following by confirmation to/from DNP at Bangkok Office. During week days, it is possible to come without reservation in advance if the visitors are willing to stay. However, at the weekend and long holidays, it is not recommended to come without earlier reservation as the park’s famous reputations to nearby urban cities weekenders.

For the case of Lam Tha Kong, during King’s Birthday on October and New Year on December-January, the visitors should reserve via internet or otherwise they will be put on the picnic zone out of activity center within the camping site. As for Pha Kluay Mai camping site, priority is also for those who have reservation in advance (camping sites staff, 2010, personal communication).

**Education and Interpretation**

Based on observation, the visitors will see numerous signboards and signage starting at the entrance from Pak Chong and Prachin Buri, inside the park, and within major tourism attractions in the park. Most of signage shows orientation, name of place and location.

There are several out of attention code of conduct signage and sign board about preserving the natural heritage (km 30 view point), prohibition of feeding the animals (all major tourism attractions and accommodation), how to behave in the park (Nong Pak Chi Observation tower, Heo Suwat waterfall), prohibition specific activities such as bring the plastic wares, food, and alcohol, littering, smoking, and make a loud voice (all major tourism attractions). There are limited education signboards within the park. Along km 33 – Nong Pak Chi observation tower stands several signage explaining the name of vegetations. Information about bird species can be found at Nong Pak Chi observation tower.

However, the most comprehensive information and interpretation about all aspects of the park can be found at visitor center, presenting in conventional and one way communication.
Visitors

Since establishment in 1962, the park has gained its popularity and started receiving 41,000 visitors in 1966, then 140,699 in 1976, and 713,893 in 1990. Number of visit in the park was more than one million visitors in 1991 (Grey et. al., 1994; TDRI, 1995). The slight decline of visitation in subsequent years related to government decision to close major facilities at KYNP including golf course, Tourism Authority Thailand’s resort and restaurant. Visitors considered the park was closed by that time (Grey et. al., 1994; S. Chettamart, 2011, personal communication). The park then offered accommodation in 1993 and number of visit increased within following years until 1998, when the park received over one million visitors, repeating previous history in 1991 (Grey et. al., 1994; TDRI, 1995). Since then, visitation number in the park fluctuated concerning major incidents in the world, Asia and within Thailand. Nevertheless, until September during 2010 KYNP has generated 514,890 visitors to the park (Research Division KYNP, 2010).

Figure 1. Visitors to Khao Yai National Park

Based on observation and interview, there is no major difference between domestic and foreigners in term of activity. Both domestic and foreigners enjoy hiking, birdwatching, bicycling, night safari, visit waterfalls, view points and observation tower. Most domestic visitors come with big group of friends, school, company, family or couple and alone. Foreigners comprise small family (up to 4 persons), small group (2 - 4 persons), couple or alone. Arranged-tours from Bangkok generally offer “elephant trek” with the elephants in a resort outside of KYNP, visit viewpoint, and waterfall.

KYNP peak season period are during January, July, October, November, and December within a year. From October to January is winter time in Thailand when the park has cooler weather, and Thailand calendar blesses with numerous holidays and traditional celebrations. July is school short term break in Thailand and summer vacation seasons in Europe, USA and Canada that contribute most visitor holiday departures to Thailand. The highest visited time is New Year holiday.

During December 2010, The Director General of DNP has launched new regulation (effectively on 29 December 2010) on prohibition of possessing and selling alcoholic drinks within the park (DNP, 2010) and created more conducive environment for visitors at camping sites (N. Chuanchuen, 2011, personal communication).

Current Situation of Visitor Management at Khao Yai National Park

UNWTO (2007) highlighted in determining visitor management, it is important to identify who (visitors) visit what (attractions) and what they do and spend. According to experience dealing with tourism projects, assessment to the tours provided, attractions and its interpretation materials are also vital aspect to be carried out. Investigation of these featured was obtained via questionnaire and observation. The result explained below.

Demographic characteristic of 200 respondents presented in table 3.1. The result showed that 57 % of respondents were male and 43 % was female. The couple and family respondents often gave the man to fill questionnaire. International solo woman traveler also appeared as respondents and came to KYNP as a woman group. For the age
breakdown, a slightly high number (28%) shown in the over 41 age group. Lower to this proportion, for Thai visitors, high number also shown in the 21 – 25 and 31 – 35 age groups, both for 29%. Compared to international visitors that has presented high portion in the 26 – 30 age group (also for 29%). In term of education, from what widely known as one of visitors characteristics who consume ecotourism trip are well educated (Patterson, 2007) represented a small “change” based on the findings in KYNP. Although 55 % of Thai respondents were at undergraduate level while 46% of International visitors were graduate level, quite significant number represented international and domestic visitors (17%) had high school and less education level. Based on further interview to international visitors, 7 cases showed European visitors never finished their high school but they still had “the spirit” to visit KYNP to appreciate the nature and its wildlife by doing birdwatching and trekking.

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Number of Visitors</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First time visitors</td>
<td>75</td>
<td>37.5</td>
</tr>
<tr>
<td>Repeaters</td>
<td>125</td>
<td>62.5</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100.0</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>114</td>
<td>57</td>
</tr>
<tr>
<td>Female</td>
<td>86</td>
<td>43</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100.0</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 – 25</td>
<td>50</td>
<td>25.3</td>
</tr>
<tr>
<td>26 – 30</td>
<td>37</td>
<td>18.7</td>
</tr>
<tr>
<td>31 – 35</td>
<td>46</td>
<td>23.2</td>
</tr>
<tr>
<td>36</td>
<td>10</td>
<td>5.0</td>
</tr>
<tr>
<td>&gt; 41</td>
<td>55</td>
<td>27.8</td>
</tr>
<tr>
<td>Total</td>
<td>198</td>
<td>100.0</td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School and less</td>
<td>34</td>
<td>17.3</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>108</td>
<td>55.1</td>
</tr>
<tr>
<td>Graduate</td>
<td>54</td>
<td>27.6</td>
</tr>
<tr>
<td>Total</td>
<td>196</td>
<td>100.0</td>
</tr>
</tbody>
</table>

In term of travel pattern, 89 % of international respondents visited KYNP for the first time, compared to 77 % repeat domestic visitors. Bangkok residents represented 48 % of respondents of domestic visitors, followed by Nakhon Ratchasima (11%) and respondents from other provinces throughout Thailand. For international visitors, European respondents dominated with 79 %.
There were 44% international respondents spent day visit and other proportion was the visitors who stayed for 2 - 4 nights inside the park (36%). Day visit respondents were coming as part of tour package, while birdwatchers and trekkers who wanted to discover more nature trails and wildlife in the park stayed longer. The proportion of domestic visitors also showed 36% day visitors and other 32% stayed 1 night in the park. Most of the respondents in this group were weekenders.

<table>
<thead>
<tr>
<th>Travel Pattern</th>
<th>Number of Visitors</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Visit</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First time visitors</td>
<td>67</td>
<td>89.3</td>
</tr>
<tr>
<td>Repeaters</td>
<td>8</td>
<td>10.7</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Travel Companion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Couple</td>
<td>15</td>
<td>20.0</td>
</tr>
<tr>
<td>Family</td>
<td>6</td>
<td>8.0</td>
</tr>
<tr>
<td>Tour group</td>
<td>12</td>
<td>16.0</td>
</tr>
<tr>
<td>Alone</td>
<td>11</td>
<td>14.7</td>
</tr>
<tr>
<td>Groups of friends</td>
<td>31</td>
<td>41.3</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Length of Stay</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day visit</td>
<td>33</td>
<td>44.0</td>
</tr>
<tr>
<td>1 night</td>
<td>14</td>
<td>18.7</td>
</tr>
<tr>
<td>2 – 4 nights</td>
<td>27</td>
<td>36.0</td>
</tr>
<tr>
<td>&gt; 5 nights</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Mode of Transport</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private car</td>
<td>101</td>
<td>80.8</td>
</tr>
<tr>
<td>Bicycle</td>
<td>3</td>
<td>2.4</td>
</tr>
<tr>
<td>Bus</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>Train</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Motorcycle</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Tour van</td>
<td>15</td>
<td>12.0</td>
</tr>
<tr>
<td>Taxi</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>5</td>
<td>4.0</td>
</tr>
</tbody>
</table>

and campers. Domestic visitors found it was easier to reach the park by their private vehicle. The result presented 80% domestic visitors came with their private car, while taking a bus was a way for 28% of international visitors to reach KYNP. International visitors also had tour van facility as part of tour package service they bought (with the proportion of 30% respondents).
Guide book remains a way for international visitors (37%) to know about KYNP and other 30% respondents informed they knew the park via internet. Domestic visitors are more familiar with word of mouth from friends, family or relatives to know about KYNP. The 17% also gave responses that they know about the park from TV programme and text book from their school (17% respondents).

Interestingly, WHS status of the park wasn’t a motivation for 44% of international and 38% of domestic visitors. Shackley (2006) has assumed that standard visitors’ motivation to visit WHS either by interest of culture and love of nature is not necessarily the case. Visitors to WHS can be motivated by simple motivation as adventure or a social setting function. The international visitors indicated they didn’t know the park has that status (21% of respondents), and 8% stated they didn’t care with the status of KYNP. If this indication is compared to the source of information for International visitors (that 37% used guidebook as source of information) KYNP has been informed as a WHS in most used guidebook for KYNP’s visitors (Lonely Planet). Twenty five (25%) of domestic visitors represented the reason that they didn’t care with the status of the park, and 10% indicated they didn’t know the park has that status. The respondents informed that they came because of nature and wildlife attractions in the park. However, the visitors also aware that KYNP is a significant nature site that has environment importance aspects need to manage and control.

On the other hand, 28% of domestic visitors and 27% of international visitors showed WHS status has driven their visit to the park. Based on further interview conducted to the visitors, the most important aspects for their visit was to do activities to have experience in the park.

The questions about visitors’ reason to visit KYNP and their activities were opened to more than one response. Therefore, the international visitor has chosen wildlife (62 respondents), outdoor activities (41 resp.) and scenery/landscape (54 resp.) as the most important reasons for their visit to the park. Domestic visitors responded scenery/landscape (95 resp.), weather condition (91 resp.) and tranquility of the park (61 resp.) as their main reasons of visit. They felt KYNP as “an escape” of daily routine. There were different activities taken by international and domestic visitors during their visit in the park. Trekking at nature trail (carried out by 60 visitors), wildlife watching (57 resp.) and visit waterfalls (56 resp.) were major activities for international visitors in KYNP. While domestic visitors enjoyed more a walk to waterfalls (80 resp.), visit the view points (59 resp.), and sightseeing by car (55 resp.). Other favorite activity for domestic visitors was camping, also represented in high proportion (48 resp.). These visitors stated they came to KYNP only for camping. Majority of international and domestic visitors came to visitor center before starting their visit. Tour package from tour operators also started their trip by coming to visitor center. Domestic visitors considered visitor center at KYNP as a museum because the way of information presented, appearance of building and front line staff welcome. According to Mason and Kuo (2006) a staffed visitor center plays a major role in visitor management at tourism destinations. Providing information and assistance as well as interpretation delivered are several basic functions. Based on interview to international and domestic visitors, visitor center is important aspect of the park that needs improvement in term of interpretation, the way information presented and welcome staff.

Language barrier remains an issue since most park rangers have limited English as indicated by park research division staff (B. Panklang, 2010, personal communication). The 45% international visitors presented response that they have undertaken the nature trails without guide or ranger. They informed that park staff at visitor center encouraged them to walk alone to the marked nature trails. Based on observation, these nature trails were informed in English and Thai language at the visitor center, promoted on map provided by KYNP and guidebook. The visitors who have undertaken walk to nature trails without guide/ranger stated that they found it easy to walk alone (74%), as well as feel safe and convenience to walk without guide/ranger. However,
most of international visitors (70%) found insufficient signage and information along the route. Based on further interview, some of them had disorientation and expressed the need for more information in English about the site.

In term of consumption in the park, there was a little difference between international and domestic visitor response. Purchasing anything from the park (any kind of souvenirs) was not interest of 95% international visitors. However, 64% bought food and beverage in the park’s canteen. Domestic visitors had more interest to purchase the souvenirs from the park with 45% gave the positive responses. About 75% domestic visitors were also consuming food and beverage in the park. The most visited restaurants in KYNP were restaurant in front of visitor center, Heo Suwat, and Lam Tha Kong camping ground.

**Figure 6. Revisit KYNP in the Future for International Visitors**

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>36%</td>
</tr>
<tr>
<td>No</td>
<td>15%</td>
</tr>
<tr>
<td>I don't know</td>
<td>49%</td>
</tr>
</tbody>
</table>

KYNP continues attract the attention of 94% domestic visitors to return. While 49% of international visitor revealed they don’t know about returning to the KYNP.

Visitor satisfaction level has been done to observe visitor’s expectation and opinion towards service and quality experience in KYNP. Satisfaction’s level of international and domestic visitors in the park shown in the Likert scale questionnaires and follow up discussion to selected visitors. The visitors were asked to rate the service and experience immediately during and post-visit at KYNP.

Uysal (2003) stated that monitoring visitors’ satisfaction with facilities, programs and services is significant aspects in maintaining a sustained and successful business or work. Satisfied tourists tend to transmit their positive experience to others and to repeat their visit (Alen et.al., 2007; Operman, 2000 in Daud et.al, 2009). There are two factors in measuring satisfaction, expressive indicators and instrumental indicators in which the theoretical distinction developed by Noe (1987) as indicated in Uysal (1999). Furthermore, Uysal (1999) mentioned in his research the sample components of instrumental factors (interpretation i.e. personnel to explain things and give information; and facilities i.e. restaurant, parking, restroom, camping site, signage, accommodation) and expressive factors (i.e. trails for hiking and biking, activities of environmental programme). Therefore, the questions developed for this research were based on these instrumental and expressive factors.

The result of questionnaire and interview showed that opinion of international visitors who used public transport was divided into 3 kinds of responses, good (16%), fair (19%), and poor (15%). The respondents have different perspective about public transport, those who gave responses fair and good indicated they didn’t mind to take series of transport to the park’s gate and then taken a ride (hitchhike). Those who responded poor found that it was impractical to walk from one to another site in the park, as the distance of most attractions are not within walking distance. However, most of visitors should walk at least 45 minutes to one hour to reach the nearest attraction i.e. from Lam Tha Khong camp site to Heo Suwat waterfall. For domestic visitors, 40% responded they didn’t know about public transport to the park. This is understandable as most domestic visitors used private car to reach KYNP as informed earlier.

International visitors (28%) found signboard to get around in the
The information signboard at view points was not recognized by 30% of international respondents. This could be explained with the fact that most respondents coming with tour package didn’t include the visit to view point. However, other 32% find the information was good. Opinion of international visitor about the information signboards at observation tower was divided into different views that 27% considered it was good and 46% don’t know about it. Regarding the fact that within the most visited observation tower “Nong Pak Chi”, the visitors didn’t realize about interpretation provided regarding wildlife around the tower. Presence of the information boards was considered as a nonexistence. The same case also was also found...
within waterfalls site. For about 42% considered they don’t know the presence of any information signboards within the waterfall sites.

For domestic visitors, information signboards at view points and waterfalls were considered good for 51% respondents and 46% at both sites. Information boards at observation tower were considered fair for 36% respondents and 18% interestingly showed they don’t know about it.

In term of facilities provided in the park, domestic visitors felt cleanliness of toilet was fair (42%) and good (36%). The total of 32% international visitor considered the toilet as good. Different with domestic visitors, international respondents used toilets at visitor center and restaurant in front of visitor center, while domestic respondents used the toilets at tourism attractions such as camping sites or waterfalls, which presented different condition.

Numerous stakeholders involved in ecotourism development and initiatives at KYNP include government, associations and non-government organization at international, regional, and national level, as well as private sector (tour operators and accommodation).

**Government**

The Royal Forest Department (RFD) was established in 1896, introducing the management of forest activity in term of economic benefits for people. Following approval of The National Park Act in 1961, which authorize the creation and protection of national parks, the section under RFD to administer this act then changed into the National Park Division in 1972. There was a restructuring reform in 2002 within Thailand government, and RFD divided into three department and 75 offices: Royal Forest Department (RFD), Department of National Parks, Wildlife and Plant Conservation (DNP), Department of Marine and Coastal Resources (DMC), and 75 Provincial Natural Resources and Environment Offices across the country, and currently under the Ministry of Natural Resources and Environment (RFD, 2009). Although RFD is no more in charge directly to national park’s management, RFD continues to publish information and awareness about protected area including national parks in Thailand via brochures and report books.

While RFD is in charge to manage forest resources in non protected areas, Department of National Parks, Wildlife and Plant Conservation (DNP) is responsible for managing protected areas. Khao Yai National Park is under Pranchin Buri Protected Area Regional Office 1 and Nakhon Ratchasima Protected Area Regional Office 7 (DNP, 2006). DNP’s role is very crucial in providing policy supports and also fund allocation for national parks including KYNP development and programmes. DNP is active in publishing guidance manuals to travel in national parks, newsletters about tourism activities, and code of conduct in national parks. Major information includes KYNP in e-book and distributed hardcopies. DNP actively promotes KYNP and all its biodiversity resources via their website. DNP also mediates KYNP and visitors. Reservation for accommodation inside the park should also be made via DNP website and follow-up phone call/email to DNP.

**Khao Yai National Park management structure** consists of superintendent, working together with Resources Conservation Section, Recreation and Communication Section, Administrative Section, and Academic Section. KYNP has eight management areas with 21 ranger units (Research Division KYP, 2010). The management is responsible for daily operation and conservation in the park. Welfare Section of KYNP facilitates small shops, food and beverage services at major tourism attractions and organizes night safari in the park. KYNP also has front office to welcome visitors who want to stay in the park.

**Tourism Authority Thailand (TAT)** has set a policy that leads to the operational level to promote “Green Tourism” throughout the country. Within that framework, TAT put special attention to promote KYNP as World Heritage Site and ecotourism destination. TAT national office in Bangkok has close collaboration with TAT provincial offices in encouraging the visit for domestic and international visitors by promoting KYNP and its products aggressively through promotion materials (brochures and guidebooks) of Thailand. During 2010, TAT has carried out media familiarization trip for local and foreign journalists to explore tourism products and services at KYNP; and published tourist guidebook of Nakhon Ratchasima which included information about KYNP (W. Churugsa, S. Naipongsri, R. Charuchet, K. Bura., 2010, personal communication).

**International stakeholders**

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) has primary concern regarding protection of KYNP as part of World Heritage site DPKY-FC. UNESCO Bangkok manages programmes in the Asia-Pacific region and in the cluster of the “Mekong” countries...
- Thailand, Myanmar, Lao PDR, Singapore, Viet Nam and Cambodia. However, UNESCO Bangkok is Asia Pasific Regional Bureau for Education which focuses and promotes programmes on education and culture. Therefore, KYNP environment issues attract limited attention.

Regional stakeholders

ASEAN Center for Biodiversity (ACB) is an intergovernmental organization of ASEAN that facilitates cooperation among ASEAN Member States (AMS) on the conservation and sustainable use of biodiversity, especially in ASEAN Heritage Parks (AHP). ACB serves as Secretariat of an AHP Committee that has role to plan activities for AHP. ACB provides inputs in term of policy making to AMS concerning AHPs. ACB has contributed to KYNP by conducting programmes include workshops and trainings to improve staff capacities for effective management, as well as assistance in public awareness, data management and networking activities. ACB has conducted a Joint Research Project to publish “Manual for Establishing Interpretive Signs in Nature Trails for Ecotourism”, “Capacity Building for Terrestrial AHP Evaluation Effectiveness in 4 AHPs in Thailand”, and conducted workshop on Communication and Community Relations in collaboration with DNP at KYNP. ACB also has join project with DNP and FREELAND Foundation to conduct trainings on law enforcement at KYNP (Uriarte, Dr. Monina, 2011, personal communication). In order to increase public awareness, ACB also actively promotes KYNP as an AHP on their website and publications, including current book published “The ASEAN Heritage Parks: A Journey to the Natural Wonders of Southeast Asia”.

National stakeholders

PTT Exploration and Production Public Company Limited (PTTEP) is a national petroleum exploration and production company that provides a petroleum supply to Thailand. PTTEP, through its CSR projects, has focus on quality of life improvement and environmental conservation and KYNP becomes one of main focuses in the programmes. PTTEP, in collaboration with Department of National Parks, Wildlife and Plants Conservation (DNP), has actively promoted and increase awareness of Thailand World Heritage sites including KYNP via publications and website. PTTEP published “Thai Heritage World Heritage”, series of booklet, brochures, posters, and support research of Hornbill & Tiger in the park. Since January 2011, PTTEP in collaboration with DNP improve nature trails in KYNP e.g. Pha Diao Dai view point, km 33 – Nong Pak Chi, and Kong Kaew as well as renovate visitor center and equipped with e-library, new souvenir shop and interactive media (A. Vorradhama-Pinich., 2010, personal communication). PTTEP also produced a tourism map of KYNP in English and Thai for visitors distribute at visitor center of the park.

The Thai Ecotourism and Adventure Association (TEATA) established in 1997, is the national body for ecotourism and adventure industry in Thailand. TEATA is Bangkok based non-profit organization with 65 members from all over Thailand. Officially supported by TAT and chartered by government, majority of current members are tour operators selling ecotour packages. KYNP is one of main focus in TEATA’s programme, activities and tour packages selling. Aside of KYNP products offer on the website, TEATA has conducted training to the youth and 50 ecotourism guides who take the tour group to KYNP. These trained guides are now in the process of obtaining license from government. TEATA is also actively promoting volunteer tourism to the youth to participate in awareness programme for the visitors at KYNP. The awareness actions carry out every New Year, comprise showing the impact of feeding the wildlife, garbage collection and “love the nature” action through performance to visitors (N. Chuanchuen, 2011, personal communication).

The National Parks Association of Thailand (NPAT) founded in 2009 by a group of academics and practitioners in conservation and management of national parks and wildlife. NPAT is an NGO aims to support management of national parks and protected areas in
Thailand based on acceptable knowledge and principles. NPAT is now actively promoting volunteer tourism at KYNP and increase domestic awareness on KYNP via their facebook fan page (S. Chettamart., 2011, personal communication).

FREELAND is an international environmental and human rights organization focus on environmental awareness, law enforcement, capacity building and community outreach to stop wildlife trafficking and protect critical ecosystem. FREELAND has carried out “Surviving Together” programme at KYNP through training on patrol and enforcement technique to the rangers. Other programme currently on going is community outreach of organic mushroom cultivation to villages around Dong Phayayen-Khao Yai Forest Complex (T. Redford., 2010, personal communication). FREELAND has actively promoted and increased public awareness about KYNP includes the programmes and activities, news and responsible tourism business surrounding the park on special blog dedicate for KYNP.

Private Sectors

Tour operators at Pak Chong, Bangkok and Pattaya are main players which offer tours to KYNP. Majority of the market is foreigners, the tour offers comprise hiking through nature trail, birdwatching and other wildlife watching at KYNP. Most of tours attempt to satisfy customers for seeing wildlife with minimal scientific explanation, as information given based on guides’ experience. Most of the tours stop at visitor center, then take hiking route at km 33 – Nong Pak Chi Observation tower, visit Heo Suwat and try a fortune to spot elephants in the park. Private sectors can be used as ambassador of KYNP to educate visitors and increase their satisfaction and experience. They can also participate on promoting KYNP through their websites.

Strategies towards Visitor Management at Khao Yai National Park for Ecotourism Development

Shackley (2000) stated that large visitor numbers, poor interpretation, little available information, crowd, congestion may affect the quality of experience for visitors. Based on further interview and observation, it was found that many important sites need improvement in term of information. Common visitors have limited awareness about the significance of the park, important aspects and its contribution to the surrounding area. Major controversy surrounding the visitor experience in KYNP is visitors’ behavior towards wildlife in KYNP. Urban dwellers are so excited to see deer and monkeys at major tourism attractions i.e. visitor center, main restaurant in front of visitor center, waterfalls, and two camping sites which demonstrate aggressive actions and duplicate human behavior. Feeding wildlife is often seen, as domestic visitors consider this manner as friendly, but create abnormal wildlife behavior. Furthermore, Shackley (2000) explained that many visitors impact can be avoided by a combination for restricting numbers with visitors’ education policies, but it would be effective if it is enforced. The presence of guard does not guarantee the effectiveness of visitor management policies, but more than the presence of guide, guarantee that the visitors will receive adequate and appropriate information will be more effective. For KYNP, the staff will be an issue as most of them are not permanent officers and work on need basis. The capacity is also the main challenge. Based on observation sample case, accommodation reservation doesn’t have yet the mechanism as professional accommodation service providers. Although outside of park’s accommodation business offer good service, the park still face this challenge. Confirmed reservation emails and phone calls from international visitors often received no reply. Other case shown the rooms were always fully book although certainly not. This was because of “no show case” often happened. Many cases also shown where the visitors were not satisfied with the welcome and service provided by the staff.

Based on observation and further interview to visitors, the road inside the park has also been used as a shortcut passing through to other way either reversely from or to Prachin Buri – Pak Chong. The users often apply high speed driving within the park and affected two major...
incidents, accident to crossing wildlife on the road and the driver itself. There are major reports from users about accident as minimum presence of signboard to inform the curve on the road.

The park also planned to limit the visitation number to KYNP based on the result of carrying capacity research conducted (M. Karnpanakngam, 2010, personal communication). The crowd often happened during weekend and long weekend, mainly major public holidays such as King’s Birthday and New Year where the park will lack of staff to encounter the crowd, especially at camping sites. However, based on zoning system in KYNP has showed that the park is committed to conservation issues. As activity area for tourism takes 12% of total area, the rest is dedicated for more serious environmental and biodiversity purposes.

Improvement of the understanding regarding comprehensive basic knowledge on environmental issues of general public visitors

Integrated and comprehensive basic knowledge on environmental issues is basic element to educate the visitors to support ecotourism at KYNP. Interpretation signboards and educative materials contain short information about the impact with shocking pictures of wildlife would be more effective than long serious paragraph prohibited the visitors towards negative actions to wildlife and environment. A comprehensive interpretation will also promote understanding of KYNP environment among broad visitors, and encourage the more responsible attitude and appreciation in the park.

Capacity building of tourism service among the park’s staff

Based on assessment carried out during the research it was founded that staff working for visitors’ reception and service still have weakness in term of service and language capacity. It is known that the park still have limited permanent staff and most of the staff working for tourism service are temporary working staff. Training and workshop for internal staff will strengthen the capacity and knowledge in providing service to visitors. Providing English and interpretation skill training and workshop to rangers to be guide for visitors, key staff at visitor center, research division, accommodation service office, and also at the gate will improve understanding about the tourism service. The capacity regarding tourism service will create satisfaction among visitors. The visitors’ appreciation will generate responsible behavior towards wildlife and environment.

Based on finding and assessment conducted during research other capacity building skill also necessary to follow up is improving accommodation service via internet by training of integrated accommodation reservation system. Thailand has major hotel and accommodation have sophisticated and secured online reservation system that can be forwarded to national park’s accommodation online and desk reservation of the park. The collaboration support between tourism industry service providers with KYNP management could be conducted to improve more integrated, updated, and close to technology reservation system and welcome staff.

Improvement of the marketing strategies and communication of ecotourism visit in KYNP

Although KYNP has been widely known and received aggressive promotion of many sectors, integrated promotion strategy by distributing and increase awareness of general public about the park is still necessary to carry out. Intensive promotion to encourage ecotourism visit to KYNP via promotion materials (brochures and tourism map) at targeted/major tourism attractions i.e. Khao San Road, Saphan Thaksin BTS Station where the tour operators and tourist information centers are lining, and Palio-Pak Chong where domestic come only for short visit. Although KYNP is famous among domestic, based on assessment at Palio Pak Chong found domestic visitors who don’t recognize the existence of KYNP nearby. Development of ecotourism visit promotion tools for its implementation is also necessary to broaden coverage of promotion to KYNP.

The crowd in the park will be more intense during weekend and long weekend. Encouraging weekday and off-season visit to KYNP will disperse flow of visitors in the park. The campaign will be challenging as most urban people and students have more time for holiday during weekend or long holiday. Therefore, KYNP can offer promotion package rate to visitors. The advantage will not only disperse flow of visitors but also economic benefit to the park’s income.
References


Royal Forest Department. (2009) Forestry in Thailand, Bangkok: Royal Forest Department.


Uysal, M. Measuring Visitor Satisfaction: An Outdoor Recreational Setting. No indicated date and place of publication.


