

SUSTAINABLE ECOTOURISM IN THE VILLAGE OF KHIRIWONG AND
THE KHAO LUANG NATIONAL PARK, THAILAND

by

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ABSTRACT

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Sustainable ecotourism is often considered to be effective for supporting the local communities' economy and promoting the conservation of protected areas in developing countries. By establishing economic benefits for impoverished villagers or their communities, sustainable ecotourism is utilized to encourage local guardianship of natural resources. To assess sustainable ecotourism's impact on the revenue of local residents in the Village of Khiriwong and the Khao Luang National Park, and its effects on the environmental preservation of the Khao Luang National Park in Nakhon Si Thammarat Province, Thailand, the researcher randomly conducted surveys of the visitors' attitudes about rewarding experiences during their village and park visits. Biologists and Ecologists were interviewed about sustainable ecotourism's role in supporting environmental preservation in the village and national park. Also, local residents in the village, as beneficiaries, were asked by the researcher to provide their perceptions about the relationship of sustainable ecotourism to cultural disruption.

To examine the sustainable ecotourism in the village and the national park and learn whether it provides the visitors with rewarding experiences, a qualitative research was conducted in the Village of Khiriwong and the Khao Luang National Park at Karom Unit, Nakhon Si Thammarat Province, Thailand. The visitors were asked to state their opinions via questionnaires after their village and national park visits. Sustainable ecotourism in the Village of Khiriwong and the Khao Luang National Park were investigated as to whether it helped support environmental conservation. The national park staff and the villagers were randomly selected for personal interviews by the researcher. A comprehensive literature review was conducted about tourism in protected areas, the tourists and ecotourists, host community and sustainable ecotourism, local attitudes, economic impacts, social impacts and environmental impacts caused by tourism, carrying capacity, tourism and sustainable development, and tourism and recreation in remote and sensitive destinations. The research methodology in this study centered upon on-site field observation and mailed and personal interview surveys. Visitors to the village and the national park were asked to complete the survey questionnaires, which were designed and prepared in Thai and English versions. Experts in environmental biology and ecology and local residents were interviewed by the researcher in person with the questions in both Thai and English. The survey was taken during the two-month stay in the village from September 6th to November 6th, 2000. After completing the data collection, the researcher brought the raw results to the United States of America for compilation and analysis. The survey information was analyzed to describe the sustainable ecotourism in the Village of Khiriwong and the Khao Luang National Park in terms of rewarding experiences, environmental preservation, social and

cultural impacts and economic benefits. Suggestions and recommendations about maintaining and improving sustainable ecotourism in the destinations were established by the findings. The findings were evaluated using proposed sustainable ecotourism elements in the village and park. Besides providing visitors rewarding experiences, sustainable ecotourism became an instrument in natural resource conservation such as water use. The village tourism brought benefits and income to most local residents with tourism involvement. The local residents agreed with the village and park tourism that they needed more education to support the village and park tourism. Tourism improved access, stimulated new services and conveniences like roads but social problems also could be found. Numerous implications for concessions, national park and protected areas management, local participation, relationships between the village and park, environmental and cultural impacts caused by tourism were discussed.

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CHAPTER 1

INTRODUCTION

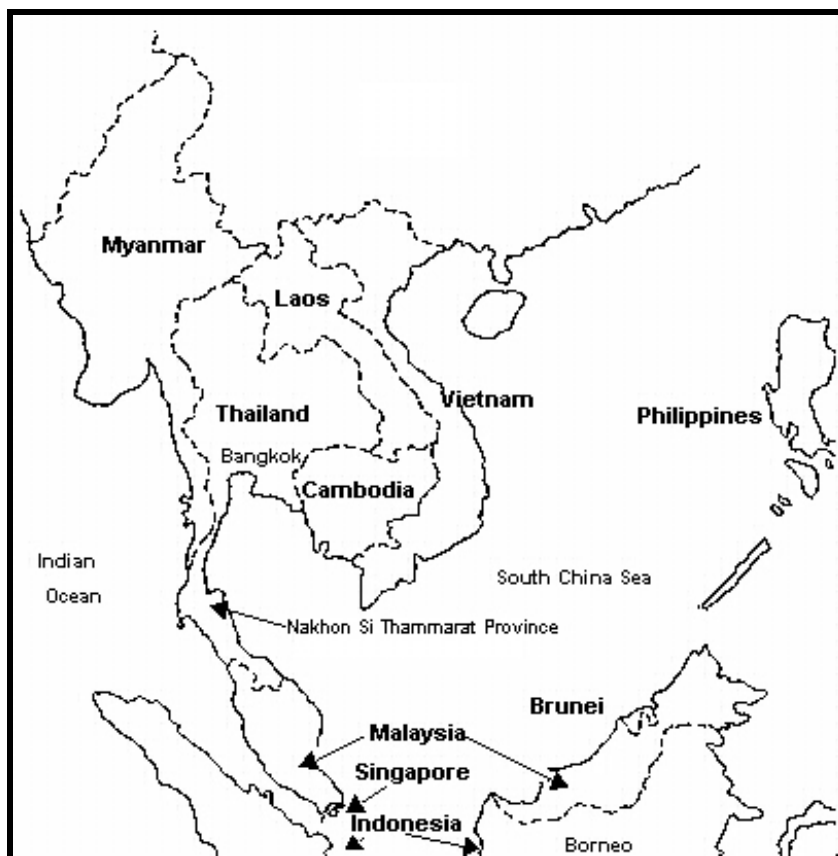
Tourism has developed swiftly during the past four decades and is predicted to become the world's leading economic activity by the year 2000 (Coccossis, 1996). Tourism is about people and landscapes, the locations which one group of people leave, visit and pass through, the other groups who make their trips possible and those groups they meet along the way. According to Pearce (1995), tourism may be taken into account as the relationships and phenomena emerging from the voyages and temporary stays of people traveling mainly for leisure or recreational objectives. It is prone to continue developing in the future because more people seek opportunities for leisure and recreation away from their surroundings. The expansion of tourism has had a significant impact on a host of destination areas. Jansen-Venbeke and Dietvorst (1987) believe the terms leisure, recreation and tourism are closely related, with emphasis on the characteristics of experience and activity. Marthieson and Wall (1982) observed that three fundamental components of tourism provide a dynamic content linked to travel to a chosen location. A static content, which is related to a stay at the destination and the outcome, is derived from those contents. This is connected to the tourists' direct and indirect impacts on the economic, social and environmental systems.

The World Commission on Environment and Development (1987) noted that sustainable tourism is inevitably related to the ethic of sustainable development. Its concepts support the finding that people struggle to satisfy their current needs without interfering with the capability of following generations to meet their own needs. According to Butler's controversial definition in 1993, sustainable tourism is developed

and maintained in an area of community or environment in such a manner and at such a scale that it exists over an endless time and does not spoil or affect the human and physical surroundings. Coccossis (1996) also concluded that the expansion of tourism has had an effect on numerous times. These effects come from the activities of transporting and nourishing people, causing social, economic and environmental impacts.

The idea of sustainable tourism includes a challenge to develop the world's tourism capacity and the quality of its products without negatively affecting the environment that sustains and nourishes them (Hawk and William, 1993). Additional terms for sustainable tourism include alternative tourism, rural tourism, green tourism, appropriate tourism, responsible tourism or progressive tourism (Lane 1990; Butler 1990 and Wheeler 1992). Ecotourism also yields opportunities for sustainable tourism (Romeril 1989; Travis 1988; Farrell and McLellan 1987). Fennell (1999) found the relationship between nature based-tourism and ecotourism as follows:

Ecotourism is a sustainable form of natural resource-based tourism that focuses primarily on experiencing and learning about nature, and which is ethically managed to be low-impact, non-consumptive, and locally oriented (control, benefits, and scale). It typically occurs in natural areas, and should contribute to the conservation or preservation of such areas. (p. 43)



Map 1. Southeast Asia

Southeast Asia is among the most rapidly thriving destination regions in the world (WTO, 1996). Yet, an increase in the growth of tourism in the region took place as a result of the financial crisis of most traditional tourism destinations. WTO (1998) reported that in Asia and the Pacific, regardless of the region's impressive growth performance in recent years, many countries have recently experienced financial market pressures connected to the appreciating US dollar, thus aggravating the tension. The pressures were most severe in Thailand in 1997, but spillovers from the crisis in Thailand were also felt by other countries such as the Philippines, Indonesia, Malaysia, and Singapore, and continued into 1998. The growth of tourism in Southeast Asia is concerned in part with the region's much greater overall economic performance (Weaver, 1998). In the mean time, Weaver also argued that while tourism in Southeast Asia has

adverse economic, socio-cultural and environmental effects, it enhances regional well-being and generates strong and diverse national economies. Thailand has experienced satisfying growth in its international tourism industry with stay-over arrivals increasing up to 7.7 million in 1998 from 1.4 million in 1978 (WTO, 1998). Chudintra (1993) found that approximately one million overseas tourists, largely from the western countries, visit the protected areas in Thailand with ecotourism-oriented activities. This accounts for 20-25% of international tourists. Furthermore, approximately 60% of the 50 million annual domestic trips occurred in Thailand's nature-based tourism (Widener, 1996). According to the WTO information in 1999, The PATA (Pacific Asia Travel Association) awarded Thailand the Gold Award for their ecotourism pilot project.

Plains, highlands and low hills blanket most of Thailand's 514,000 square kilometers. The mountainous zone is situated along the western and northern border with Myanmar and along the northeastern border with Laos (Stewart-Cox, 1995). World Resources Institute (1994) explained that the biological resources of Thailand are enormous, including thousands of kinds of higher plants, birds and mammals such as hornbills, gibbons. Those unique characteristics urge the nature seekers all over the world to experience the natural resources of the country.

Research sites and geographical situations

The Khiriwong Village is a beautiful community blanketed with natural resources. It is a peaceful community situated in western Na Khon Si Thammarat Province. The village itself is surrounded by the sizeable and precipitous mountains in the renowned Khao Luang National Park. The Khiriwong Village of 678 households has established local activities and a cooperative. Environmental protection and maintaining their original way of life is a main community task. The village has the potential of sustainable tourism, based on local biodiversity, culture and way of life. The Khao Luang National Park is one of the most valuable natural landscapes in Thailand and in the world. The national park with 570 square kilometers, mostly occupied by rain forest and mountainous areas, is located close to the Khiriwong Village and supplies the villagers with food and recreation. The highest peak of its mountainous range is approximately 1,835 meters above the sea level, and receives heavy monsoons especially in November from both the Indian Sea and the Gulf of Thailand. In consequence, this area is remarkably well endowed with indigenous flora and fauna, which can be found only in this national park (Tourism Authority of Thailand Magazine, 1996).

In collaboration with the Villagers of Khiriwong and the Khao Luang National Park staff, two extensive research strategies were employed by the author. They focused on the villagers and the adjoining national park.

A. Village study was based upon the following:

1. the great significance of traditional cultures in the southern area and the need for the researchers to obtain primary data about local life and culture;
2. the importance of the village as a sustainable settlement; and

3. the importance of the village institution and its potential significance for the implementation of sustainable development strategies.

B. Relationship between the village and the national park:

1. population and culture;
2. sustainable ecotourism; and
3. natural resources.

Statement of the problem

The major purpose of the study was to identify the economic, environmental, social and institutional benefits in the Village of Khiriwong and the Khao Luang National Park. These elements were much involved with routine life, home craft industry, agriculture and natural resources that are related strongly to domestic tourism. Besides the collection of the available foundation data, observational research was conducted on such topics as the impact on the Khiriwong Village and on the management of the national park of tourism, and the tourism employment in the village.

Objectives

The study concentrated on the following objectives:

- a) to determine whether sustainable ecotourism provides the customers with a rewarding experience;
- b) to determine whether sustainable ecotourism contributes to environmental conservation; and
- c) to determine whether sustainable ecotourism brings economic benefits to the receiving community without also causing cultural disruption.

Potential benefits of the study

Host Residents and Community Benefits

The host residents and community will be able to:

1. obtain education concerning the values and attribution of the natural resources and protected areas in their communities and surroundings;
2. become aware of the protected areas which nourish their living and the host residents; including the values of their precious natural resources, environment and traditional culture;
3. enhance inspiration and encouragement to participate in policy making and tourism planning and development useful to their community in the present and future;
4. participate in reducing the adverse impacts of tourism, such as improper and inappropriate patterns of tourism development; and
5. increase community acceptance of tourism and tourist behavior.

The national park's benefits

The Khao Luang National Park staff and administrators will be able to:

1. better discern the readiness of the community for further sustainable tourism development with the park's cooperation; and
2. understand how to employ appropriate methods to educate and encourage local residents through a viable sustainable tourism development policy; and provide a balanced development plan, which meets the needs of the local

residents, the economy, society, environment and institution of the Village of Khiriwong.

Conclusions

Thailand's sustainable ecotourism, which is dependent on ecology, environment and host communities, is now being widely promoted by communities and the government. The Khiriwong Village and the Khao Luang National Park, Thailand are appropriate places to investigate the roles that the sustainable ecotourism can perform in visitors' rewarding experiences, environmental conservation and the residents' local culture and way of life. The objectives of this study are to identify whether sustainable ecotourism provides the visitors with a satisfactory experience, whether sustainable ecotourism is instrumental to environmental conservation, and whether sustainable ecotourism brings economic benefits to the beneficiaries without also causing cultural disruption. The benefits of this study will be useful for the host residents, the community and the national park. To follow a study of sustainable ecotourism in the Village of Khiriwong and the Khao Luang National Park, the next Chapter 2 was composed of the review of literatures in several sustainable ecotourism subjects, which were compiled from the previous studies and research in this tourism field.

CHAPTER 2

LITERATURE REVIEW

Introduction

Sustainable tourism is apparently an extensive, poorly-defined area that includes numerous components of the tourism system. Nevertheless, there are multitudes of significant stakeholders in the field of sustainable tourism that are explained in the following information. It is no surprise that it is quite difficult to reach a mutual understanding of what sustainable tourism means and how it can be accomplished.

The review of literature will be divided into subjects most relevant to this research. These relevant areas include: ecotourism and its roles in sustainable development, nature tourism and sustainable tourism, rural areas, tourism to protected areas, ecotourism, the tourist and the ecotourist, host country government, host communities and sustainable tourism, local attitudes, economic impacts, environmental impacts, social impacts, socio-cultural impacts, carrying capacity, tourism and sustainable development, sustainability planning, tools for sustainability analysis in planning and managing tourism and recreation in the destination, and managing the social, environmental and cultural impacts of sustainable ecotourism. The research, however, resulted in a small number of resources on this subject and expressly the studies of sustainable ecotourism in Thailand. Therefore, this literature review will, more or less, encourage and endorse other researchers to study more about catchall Thailand's sustainable ecotourism in the future.

Ecotourism and its role in sustainable development

Coccossis (1996) stated that the extension of tourism has affected a multitude of tourism destinations and several activities from transporting to nourishing people. The social, economic and environmental impacts of tourism are numerous and diverse. Owing to Whelan's (1991) notion, it is astonishing with the potential of tourism's part in the conservation of the region's uncommon and picturesque natural resources. There are strong economic pressures on the local residents in the developed world and any other country to overuse their natural resources. Quite a few countries have established protected areas to be reserved for this controversial issue. Ecotourism can become a sustainable and rather simple option. It certainly brings about employment and income to local communities and brings foreign revenue to the host government, at the same time allowing the continued existence of the natural resources. It can provide local communities the legal authority, giving them an attitude of ownership of their natural resources and maintaining the status quo. It can teach travelers about the significance of the ecosystems and effectively link them in the conservation endeavor. Also, it has the possibility to distribute economic benefits and decline environmental costs. It is vital to get through ecotourism's role in the sustainable development of natural areas and to meet the target of how ecotourism can be planned for both ecological reaction and economical supply.

Nature tourism and sustainable tourism

Epler Wood, Gatz and Lindberg (1991) found that the intent to travel to natural areas is to discern the culture and the natural background of the surroundings. This purpose will not disturb the unity of the ecosystem and will generate economic chances that provide the conservation of the natural resources profitably to the local residents. Repetto (1991) supported that nature-based tourism is thriving. Meanwhile, an increasing number of travelers set off in quest for the uncontaminated natural environment and peculiar cultural experiences the developing world has to offer. World Resources Institute (1991) also found that nature tourism is being expanded because of the repetitive seaside and city tourism. People desire to spend their holidays in untamed natural circumstances, which sometimes attract them by an unfamiliar local culture. Nature tourism is a miraculous phenomenon for sustainable economic development. Hawkes and William (1993) proposed the idea that, although the tourism industry has been thriving briskly lately, there is no standard definition of nature tourism. It can be explained in various ways, yet the crucial divergence is between mass tourism and nature tourism. The notion of sustainable tourism covers a challenge to develop the world's tourism capacity and the quality of its yields without adversely influencing the surroundings that keep up and nurture them. Thanks to the meaning of the sustainable tourism of Lane, Butler (1990) and Wheeler (1992), sustainable tourism has considered a host of entries such as alternative tourism, responsible tourism, green tourism, or progressive tourism. Garrod and Fyall (1998) found that sustainable tourism is derived from the more common notion of sustainable development. The formal meaning is a given term employed to represent the application of the sustainable development to the defined content of tourism. Croall

(1995) also encouraged sustainable tourism in the aspect that tourism should accomplish the sustainable development independently of other activities and procedures are in conflict with the concept of nature. In addition, Pigram (1990) stated that sustainable tourism stretches through alternative tourism, although it is quite obvious that most patterns of tourism can possibly be appropriate to the sustainable development aspect, if dealt with in a proper method within suitable settings. According to Valentine's (1992) explanation, nature tourism plus ecotourism was more exclusive, and covered merely those activities which rely on natural areas instead of those that are solely increased by natural areas.

Rural areas

Swarbrooke (1999) noted that rural bodies possess an uncommon place in the culture of the country and the milieu of its people and rurality is the seed that civilization has grown. Thanks to the discovery of Keane and Van der Straaten (1992), rural areas have been confronting increasing pressures from recreation and tourist development. Coccossis (1996) also agreed that the views and problems of rural areas have become initial issues from social, economic and environmental prospects. Notwithstanding divergent geographical characteristics, several of the rural areas encounter problems of the population decrease. Even if it is a short-term attitude, demographic and economic decrease may become profitable to the environment, alleviating the stresses on resources at a local level. All in all, this might bring about environmental destruction. Environmental issues in rural areas are not always ascribed to abandon and ignorance. Intense problems of environmental degradation are also put down to excessive utilization

of resources and are empty of resource management. Anyway, tourism has essential advantageous consequences as well on environmental concerns in certain remote areas, especially when it supports environmental conservation and improvement. Some categories of tourism, such as eco-tourism and rural tourism, have brought problems to the rural areas and brought the attention of society. Tourism has engendered impacts, directly or indirectly, on better management of environmental resources. However, according to Swarbrooke's (1999) comments, wherever endeavors are produced to develop sustainable patterns of rural tourism which conversely urges sustainable rural development, the breakthrough will be consumer-oriented. Currently, several nations are vigorously attempting to draw tourists for the social or economic benefits they can produce.

Tourism to protected areas

Boo (1990) found that tourism to protected areas of breathtaking natural scenery, uncommon ecological interest, and pristine untouched areas has dramatically increased in the past twenty years. Boo's (1990) view supports Keller's (1987) statement that an area that can keep up the manipulation of the tourism decision-making, and confine evolution of growth in tune with the resources, investment, manpower, and culture from within has to achieve the economical, social and ecological advantages. Ceballos-Lascurain (1987) explained ecotourism as any traveling to rather undisturbed or unspoiled natural areas with the given purpose of learning, perceiving, and relishing the views. Moreover, wild flora and fauna, including any existing cultural demonstrations, are observed in these areas. This type of tourism varies from a short walk through a forest to surveys and

studies of particular natural attributes in remote areas. It also has rapidly altered from an avocation for a select few to an activity followed by many. People affiliated with the travel industry are observing an increasing need for nature tours and other kinds of extraordinary trips to off-beat destinations, which is now a part of international and national tourism. National parks, reserves, and wildlife refuges in some countries are attracting growing tourist attention for education and recreation. Yet, the effects of nature tourism on the zone's protected areas or the economic potential of that specific market are widely reported. Those analyses will be vital to park managers, government officials, and tour operators who look to capitalize on their potential without bringing about any danger to the special characteristics of natural areas.

With 12.6% of Thailand's territory reserved as protected areas, Thailand has the second highest proportion of protected land within Asia, after Bhutan (World Resources Institute, 1994). McNeely and Dobias (1991) noted that there are plans to significantly enlarge this percentage through the establishment of additional parks. Most park visitors are Thai people, who are usually young persons traveling in large groups during summer vacation or long weekends (Chudintra, 1993). Widener (1996) found, however, that only a few of the more approachable parks have the location or available infrastructure necessary to draw substantial numbers of visitors.

Ecotourism

Based upon Nicoara's statement (1992), nature-based tourism, currently called ecotourism, was launched in the 1980s and has become one of the fastest growing segments of the world tourist industry. Swarbrooke (1999) advanced the idea that the term ecotourism is combined with other terms like soft tourism, alternative tourism, responsible tourism and nature tourism. Ross and Wall (1999) believed that ecotourism is consistently deemed to be beyond tourism to natural areas. The World Conservation Union's Commission on National Parks and Protected Areas (1991) suggested that ecotourism is environmentally answerable travel and travel to untouched natural areas. The travelers can relish and admire nature including any other cultural exhibits that increase conservation. This sort of tourism has scant visitor impact, and offers the profitable active socio-economic participation of local residents. Additionally, in Scheyvens' (1999) point of view, ecotourism is the activity that can relate to both cultural and environmental tourism. It yields benefits to the local residents who are a critical part of the activity. It resembles Pedersen's (1991) outlook that at the same time ecotourism offers a pleasant experience in nature, the basic functions of ecotourism are protecting natural resources, generating income, educating local participants and establishing capacity. Each of these functions is necessary to the entire success of ecotourism. Furthermore, they can bring about the attainment of more particular goals, which are difficult to separate since failure to overcome one purpose may affect the breakthrough or capacity to fulfill others. If all of the purposes are in accordance, then ecotourism will become a suitable support to the solution of a storm of debates linked to the stresses between resource consumption and resource conservation. Plus, the accepted ecotourism

can be a sustainable tourism benefiting from natural resources which can go on to be pleasing and utilized for generations to come. Similar to Whelan's (1991) concept, ecotourism can be a sustainable and slightly unsophisticated alternative. It offers employment and revenue to local communities and needed foreign currency to federal governments, thus enabling the continuing existence of the natural resources, which are based on being protected. Fennell (1999) noted that ecotourism is a sustainable form of natural resource-based tourism that highlights primarily experiencing and learning about nature, and which is ethically managed to be low-effect, non-consumptive, and locally oriented in control, benefits and scale. It typically takes place in natural boundaries, and should make a major contribution to conservation or preservation in those locations. Wallace and Pierce (1996), suggest that true ecotourism can be addressed in the following six principles.

1. Ecotourism entails a type of use that minimizes negative impacts to the environment and to local people.
2. Ecotourism increases the awareness and understanding of an area's natural and cultural systems and the subsequent involvement of visitors in issues affecting those systems.
3. Ecotourism contributes to the conservation and management of legally protected and other natural areas.

4. Ecotourism maximizes the early and long-term participation of local people in the decision-making process that determines the kind and amount of tourism that should occur.
5. Ecotourism directs economic and other benefits to local people that complement rather than overwhelm or replace traditional practices (farming, fishing, social systems, etc.)
6. Ecotourism provides special opportunities for local people and nature tourism employees to utilize and visit natural areas and learn more about the wonders that other visitors come to see. (pp. 843-873)

The tourist and the ecotourist

Swarbrooke (1999) found that tourists in the sustainable tourism context are the problem makers in environmental, economic and social aspects when conducting their activities. At times, it seems the tourist is an invader instead of a greeted guest. Through Whelan's (1991) viewpoint, the ecotourists will be a key player in the success or failure of ecotourism. They can do more than learn from the experience and participate. Ecotour operators are supposed to implant a conservation conscience for ecologically fragile travel in their customers, if they are to carry on directing visitors to sensitive landscapes. Ecotour operators and conservation organizations both in the destination country and in the home country need to function diligently to get the ecotourists effectively to take part

in sustainable development. Ecotourists can turn out to be a potential group of members with leisure time and funds to spend on sustainable development attempts. This is pertinent to Ziffer's (1989) discovery that most nature tourism locations stress natural attractions and a seclusion that the travelers do not possess at home. Four fundamental genres of tourists questing for nature are as follows:

Hard-Core Nature Tourists: Scientific researchers or members of tourist group specifically designed for education, removal of litter, or similar purposes.

Dedicated Nature Tourists: People who take trips specifically to see protected areas and who want to understand local natural and cultural history.

Mainstream Nature Tourism: People who primarily take an unusual trip.

Casual Nature Tourists: People who partake of nature incidentally as part of a broader trip

(Ziffer, 1989, p. 3)

Boo (1990) highlighted that nature tourists are normally more acknowledging of guidelines varying from their homes than are other classes of tourists. Nature tourists do not anticipate lodging accommodations, food, or nightlife that respond to the yardsticks of comfort or luxury held by other groups of tourists. Cater's (1994) notion supports Boo's (1990) view that the tourists need to be appropriately told about the attributes of their destination and how to conduct themselves to lower the unwanted effects during their stay. This is the primary responsibility of the tourism industry. Swarbrooke (1999) believed that sustainable tourism could not be accomplished by regulation or by educating tourists. It is much better to take part in developing patterns of tourism, which provide tourists pleasant perceptions and mirror tendencies in social appraisal and consumer values while enhancing the profits and lessening the cost of tourism.

According to the discovery of Widener (1996) about the domestic participation in the nature-based tourism aspect, 60% of the 50 million domestic tourism trips taken each year in Thailand are nature based. It can also be assumed that whatever the level of nature-based participation, not all would qualify as ecotourism. He added that at least 40 million of the trips happen outside protected areas, where the formal opportunities for ecotourism are extremely limited at present. Furthermore, ecotourism alludes to methods of recreational behavior among Thais and other Southeast Asians when referring to nature and /or protected areas, visits are prone to be a holiday experience involving large groups on public holidays or vacations, and concentrated on pleasure-based recreation by the middle class people. This was brought to Cochrane's (1993) attention that Thailand is probably situated about halfway between Costa Rica and Kenya, if considered in western cultures.

Host country governments

Swarbrooke notes (1999) that governments have been likely to lead the development of tourism in developing countries. They are often performing with good faith, but their intervention has had a large number of unfavorable effects. The International Resources Group (1992) believed that effective development and marketing of ecotourism is dependent on a deluge of proper actions by federal governments in policy, resource management and finance. The success of a government's ecotourism plans relies on its ability to actively balance its development in terms of national, industrial and local needs, interests, and well-being. It should not have to merely allow development to compromise environmental, social and economic sustainability. A

government must possess an astute knowledge of what type of development is suitable for its social systems, institutions and communities, and plan appropriately. The role of federal government in backing ecotourism has numerous divergent parts which are pretty perplexing, ranging widely between countries in many areas of government participation, policy, resource administration, tourism promotion and infrastructure development. In addition to the small scale, Ryel and Grasse (1991) noted that government requires persuasion at the national level that ecotourism will generate a dramatic sum of foreign exchanges, so they can have financial assistance to provide technical support for the protection of parks and reserves.

Host communities and sustainable tourism

Murphy (1985); Jamal and Getz (1995) ascertained that the use of the term community in tourism research has thrived considerably over the past twenty years. Thanks to the evolution of tourism products, the community can bring these cultural resources as a tourism commodity. Regardless of this growth, not many researchers have devoted much attention to defining community. Researchers constantly refer to an assemblage of people dwelling in the same location. Some include a perception of ecosystem or habitat in their explanation. Sociologist Bernard (1973) explained the differences between the communities that are an accumulation of people at a specific site. What's more, community can be typified by social interplay, intimacy, moral actions, relationship and perpetuation through time. Besides, Stoddard (1993) found that the interdependence concept of community needs, social organization rooted in sharing prizes and beliefs by the community members, directed the many-faceted relations

between individuals and developed the way in which groups of people give each other assistance and advantages. Through Liu (1994); Ceballos-Lascurain's (1996) perspective, certain authors have recommended that the entry community-based ecotourism business should be used to classify those judgments which are ecologically sensitive. Those judgments are also designed to make sure that local community members have a large amount of influence over the activities occurring, and a significant allocation of the benefits raised by them. Regarding Cater's (1993) comprehension, a community-based access to ecotourism realizes the need to enhance both the quality of life of local residents and the conservation of resources. A practical means to discern answerable community-based ecotourism is to access it from a development viewpoint, which investigates social, environmental and economic targets, and questions how ecotourism can respond to the needs of the host population by upgrading living norms both in the short and long term. Drake (1991) endorsed the idea that local involvement is an imperative element of sustainable development. Generally, meeting the needs of present and future generations while protecting the natural resource base, and ecotourism particularly, is vital. Local communities can take part in ecotourism projects in the planning and implementation phases. Furthermore, they can allocate the benefits. Involvement in the planning stage covers major responsibility while demonstrating problems, formulating options, planning activities, and apportioning resources. Participation in the actual operation process may include actions such as managing and operating a program. The local community will acquire benefits. They are economic, social, political, cultural, and/or other benefits from the plan either personally or reciprocally. Cole (1997) stated, that particularly in virtual nature-based tourism, the role

of the host has to be placed neutral to sustainable tourism development. The aim is to provide them this central role because it is critical to have an obvious comprehension of their culture, including internal politics, before the development can be scrutinized.

According to Harper's (1997) notion, in order to affect drift in the local communities, it is necessary to completely comprehend its social combination, but this retards the process.

It is deemed that the best way to change is to point out the local leaders in the community, then seek them out, befriend them and cooperate with them. Consequently, the change phase is accelerated by these local influences instead of being imposed from outside.

Local attitudes

Owing to Giongo, Nizeye and Wallace's (1994) perception, "Not only can visitor behavior and numbers cause conflict among themselves, they also have the potential to conflict with local people neighboring the resources" (p. 94). Both management staffs and visitor manners can raise the effects on local residents unfavorably or positively. It is significant that the endorsement of local residents be requested if the protected areas and visitor management programs have to achieve long-term success. Acquiring the opinions of local residents can be instrumental in designing practical public relations and visitor management programs.

Economic impacts

Scheyvens (1999) provided a practical notion that when thinking whether or not a community has been given economic freedom by an ecotourism business, it is necessary to think about opportunities, which have been derived from both casual and formal sector employment and business opportunities. Meanwhile, some economic gains are from time to time gained by a community. Problems may occur if these are spasmodic and cannot supply a constant, foolproof income. Besides, concerns may derive over parity in the scattering of economic profits. It is hard and not certain to effectively accept that all community members possess equal importance and the same rights including opportunities in life with mutual targets. This brings to the identical comprehension of Wilkinson and Pratiwi (1995), that to identify the sustainability of an ecotourism business, the allotment of economic benefits from this genre of tourism is only as pressing as the exact quantity of benefits a community may come by.

Environmental impacts

With Cater's (1994) explanation, people have become increasingly aware of the unfavorable socio-cultural and environmental effects of unlimited mass tourism. The merging of the term 'eco' implies that ecotourism should be an environmentally accountable form of tourism. Actually, if it does not act according to this requirement, then the natural attractions will experience degradation so that the tourists will no longer visit. The level of those ecotourism activities indirectly states that comparatively fewer tourists will arrive. In consequence, the supporting facilities can be kept up to a minimum and will be less intrusive. It is important to realize that any human activity relying on the

use of a large amount of ecological resources like ecotourism cannot be sustained continually if the consequential doctrine does not give any support to its organization. Ecotourism, with its meanings of good environmental management and ensuing supporting funding of environment, should provide a viable economic choice to utilization of the environment. Nevertheless, Keane and Van der Straaten (1992) emphasized that the effect on the natural ecology is consequential as graphically observed in natural parks in the Alpine region. Present development in distant areas to provide domestic and international tourism presents a future which will damage rural ecosystems in two ways. It is through increasing stress for construction or through urging traditional rural activities and practices. Those will cause the management of natural resources to be neglected. Coccossis (1996) agreed that environmental issues in rural areas are not always caused by abandonment and ignorance. Harsh problems of environmental degradation are also put down to over utilization of resources integrated with the lack of resource management.

Social impacts

Thanks to Mansperger's (1993) understanding, social empowerment means that a community's sense of unity has been proved or made more effective by an activity like ecotourism. Social empowerment may take place when the tourists' activities bring about crime, begging, discovery of tourist congestion, or prostitution forcing local residents to move from their from original habitats and loss of genuine sense of place. Coccossis (1996) contended that the effects of tourism might also be favorable. Because of providing lodging accommodation for the arrival of a large number of tourists and

visitors, local residents have the advantage of access to upgraded infrastructure, facilities and services such as transport, wastewater management and so on thus improving environmental quality. Also, thanks to the to better life and the increased prosperity to those local residents, local values and attitudes can be altered. Therefore, the local communities can become more ecologically circumspect and place greater importance on local resources and their cultural inheritance.

Socio-cultural impacts

Weaver (1998) found that within most destinations, the degree to which tourism's negative socio-cultural results depends on several conditions, including paramount divergence in monetary status between tourists and the host community, large cultural and racial differences between tourists and the host society, strong desires of tourists to stick to their own cultural norms. In the mean time, brisk growth of the tourism industry at the destination, judgment and involvement in material focused on tourists, high number of tourists depending on local population, more noticeable tourism beyond the destination economy, and external manipulation over a principal segment of the tourism industry can influence socio-cultural concerns. Through Weaver's (1998) findings, the socio-cultural costs take place as a consequence of the economic costs, even certain reporters from the support group have suggested that the socio-cultural impact be anticipated as the continual cost of the economic benefits. In Erisman's (1983) conception, the true socio-cultural costs generated by the stated variables may be categorized into many interblended genres based on an alteration of research. Cole (1997) found that the vitality of anthropologists for the development of sustainable tourism in the developing nations

should not be overlooked. Clearly, in particular, in nature-based tourism, the role of the hosts must be center to the sustainable tourism development procedure. To provide them this central role, it is critical to have a clear comprehension of their culture.

Carrying capacity

The International Resources Group (1992) noted that the idea of carrying capacity was developed by ecologists and resource managers to portray the number of healthy creatures on a piece of land that could subsist without any degradation or spoilage in the ecosystem. It contends the statement of Lime and Stankey (1971) that few ideas in recreation management are discussed as greatly or as loudly as carrying capacity. The entry is an example of what most people think. Everyone supports managing our recreation resources within their carrying capacity. Yet, “when you get to the exact how many, what type, when, for whom, the conversation is disrupted” (p. 182). Daily and Ehrlich (1992) found that the entry is taken from wildlife ecology, with a somewhat correct use. The peak population size shows that a specific kind can be supported in an area without cutting down its capability of reciprocating the same kind in the future. In Wight’s (1998) findings, the carrying capacity has been employed in land use planning and growth management and other facets of human activity. Planners have enlarged the meaning of carrying capacity with a host of variables discovered in manmade systems. According to Shelby and Heberlein’s (1984) notion, “the carrying capacity has been broken down into ecological capacity or ecosystem parameters, physical capacity or space parameters, facility capacity or development parameters, and social capacity or experience parameters” (p. 78). According to Whelan’s (1991) point of view, the very act

of tourism may endanger the survival of protected areas. All protected areas have confined ecological and aesthetic carrying capacities. The ecological carrying capacity is approached when the number of visitors and their attributes of exploitation begin to affect the wildlife and spoil the ecosystem, like disturbing mating habits and rubbing soil away. The aesthetic carrying capacity is accessed when tourists confront and experience other throngs of tourists, or face the effects of other visitors such as lack of noticeable wildlife, trash, erosion, cutting down the trees, so that their admiration of the landscape is diminished.

Tourism and sustainable development

Together with Milne's (1998) finding, the previous endeavors to establish a theory of tourism's role in the development phase have diminished to make the environmental aspect less important. That is the center of sustainable development. Combined with Butler's (1980) understanding, if one visualizes product life span-based approaches, the insights of an obviously political economy structure (Britton, 1982 and 1991) or the swift connecting frameworks of what Teague (1990) refers to as the new political economy (Iaonnides 1995; Williams and Shaw, 1995), one tries to seek the in-depth intention which defines the effect of tourism on the state of the natural ecology and local people's more extensive quality of life. Butler (1992) contended, ecotourism and alternative tourism radically represent the diminished purpose of the immediate plans and will finally result in a large-scale, adhering unsustainable development. Coupled with Brandon (1996) and Ceballos-Lascurain's (1996) additional information, quite a little consideration on sustainable tourism has tried to distinguish more sustainable activities

like ecotourism, alternative or appropriate tourism from unsustainable differences of the industry. Through De Kadt's (1992) statement, the policy planners had better not simply classify between alternative tourism, which generally needs to respond to the high criteria of social and environmental effects, and tourism, the unfavorable impacts of which may be allowed to carry on.

Sustainability planning

Ward (1999) found that the target of sustainable tourism development calls for demonstrating an obvious relationship between tourism and the doctrines of sustainable development as shown in the Brundtland report and other renowned texts on the matter relating to the combination of two existing formerly independent areas of environment and development. The keynote aims to improve the quality of life, in particular, of the most destitute part of society through preserving the environmental and cultural unity of the globe's human and natural resources. Lindberg (1991) identified that the possible advantages of nature tourism will be taken and maintained merely with sufficient planning and joining together. Lindberg also added that a national nature tourism board would logically meet with representatives from ministries of planning, finance, and parks and tourism, or others with their same functions. It will also include delegates of the private tourism industry, influenced local communities, the national airline, private conservation organizations and others. It will be accountable for elaborating the country's targets and ability in connection with nature tourism. According to the International Resources Group's (1992) conception, planners and developers of potential ecotourism destinations are required to confer with the tour operators, hotel people, airline staff and so on. The entire range of performers in the travel industry can also play an important

part. There are not appropriate accessibility studies or business administration in quite a few developing ecotourism locations. In addition to providing a worthwhile outlook on demand and competition, travel industry representatives could identify the reciprocal attempts that the industry would underwrite as soon as a destination is found.

Tools for sustainability analysis in planning and managing tourism and recreation in the destination

In Wight's (1998) opinion, tourism is an improving experience for the visitor. It can be advantageous and beneficial, and brings about employment, income and other profits for host communities. But, if improperly planned or conducted, it can turn into a difficult situation for the visitor, the landscape and the host community. Anyhow, with Gunn's (1994) observation, while some rubbing away and contamination of resources is inevitable by a large number of visitors, most environmental spoilage is ascribed to the shortage of plans, policies, and reforms to prepare for any economic growth. It is not tourism's fault that environmental degradation resulted from wrong decisions instead of true visitor effects. Consequently, the relationship between tourism and the entire environment is significant. If the natural ecology or the culture is marred, or if the adverse effect of tourism becomes worse, then we lack a positive force stimulating local people to sustain and better the environment.

How to manage the social, environmental and cultural impacts of sustainable ecotourism

According to Dredge and Moore (1992), tourism is not an essential element in the planning phase regardless of its obvious economic importance for many in given areas. It is relevant to Inskip's (1991) statement that much of existing research directly refers to tourism as an activity that is planned and may be the concentration of planning in various contexts. The fact is that it is not a visible activity delivered within the public planning frameworks existing in many nations. It is accorded with Heeley's (1981) notion that the attainment of planning for tourism is likely to rest on the degree to which suitable planning and management functions can lead and examine carefully its development and effects (as cited in Page and Thorn, 1998). The International Union for the Conservation of Nature and Natural Resources (1987) explained that the most important operation for managing change is by controlling the number of visitors. Simultaneously, the planners can also exert remedial tactics. Any strategy will be widely site-specific, but certain generalizations can be stated. Ecological deterioration put down to the tourist infrastructure can be lowered if facilities are carefully placed, and appropriate treatment functions are employed.

Thailand and sustainable ecotourism

Thailand's sustainable ecotourism, which is dependent on ecology, environment and host communities, is now being widely promoted by communities and the government. The Khiriwong Village and the Khao Luang National Park, Thailand are appropriate places to investigate the roles that the sustainable ecotourism can perform in

visitors' rewarding experiences, environmental conservation and the residents' local culture and way of life.

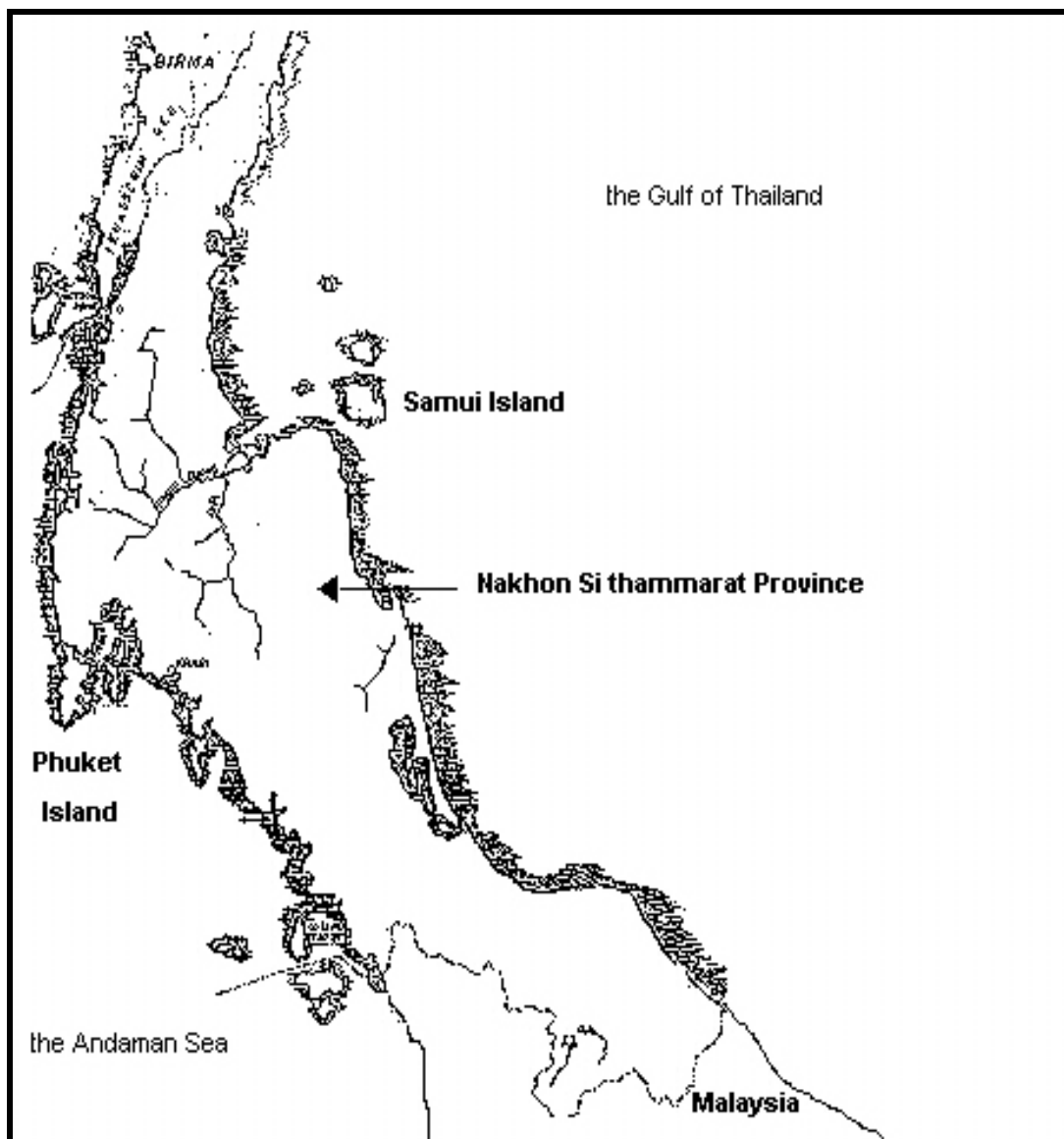
The Province of Nakhon Si Thammarat

Nakhon Si Thammarat, meaning *grand city of the just king*, is an historic city in southern Thailand. The city is 780 kilometers by car from the capital city, Bangkok, and 832 kilometers by train. The province has a land area of 9,942 square kilometers. The population of the city in 2000 is approximately 1,500,000. It constitutes 21 Amphoe (districts) and two King Amphoe (sub-districts) as ensuing:

- | | |
|------------------------|------------------------------|
| 1. Amphoe Muang Nakhon | 12. Amphoe Hua Sai |
| 2. Amphoe Pak Pha Nang | 13. Amphoe Lan Saka |
| 3. Amphoe Chian Yai | 14. Amphoe Thung Yai |
| 4. Amphoe Ron Phibun | 15. Amphoe Phi Pun |
| 5. Amphoe Cha Uat | 16. Amphoe Na Bon |
| 6. Amphoe Thung Song | 17. Amphoe Phrom Kiri |
| 7. Amphoe Tha Sala | 18. Amphoe Kha Nom |
| 8. Amphoe Cha Wang | 19. Amphoe Bang Khan |
| 9. Amphoe Si Chon | 20. Amphoe Tham Phannara |
| 10. Amphoe Chulaphon | 21. Amphoe Chaloem Phra Kiat |
| 11. Amphoe Phar Phrom | |

King Amphoe Chang Klang

King Amphoe Nop Phitam



Map 2. Southern Thailand and Nakhon Si Thammarat Province

Source: Hartmut Volk's Forest Gardens in the south of Thailand (1993)

Location

North Border: Surat Thani Province and the Gulf of Thailand

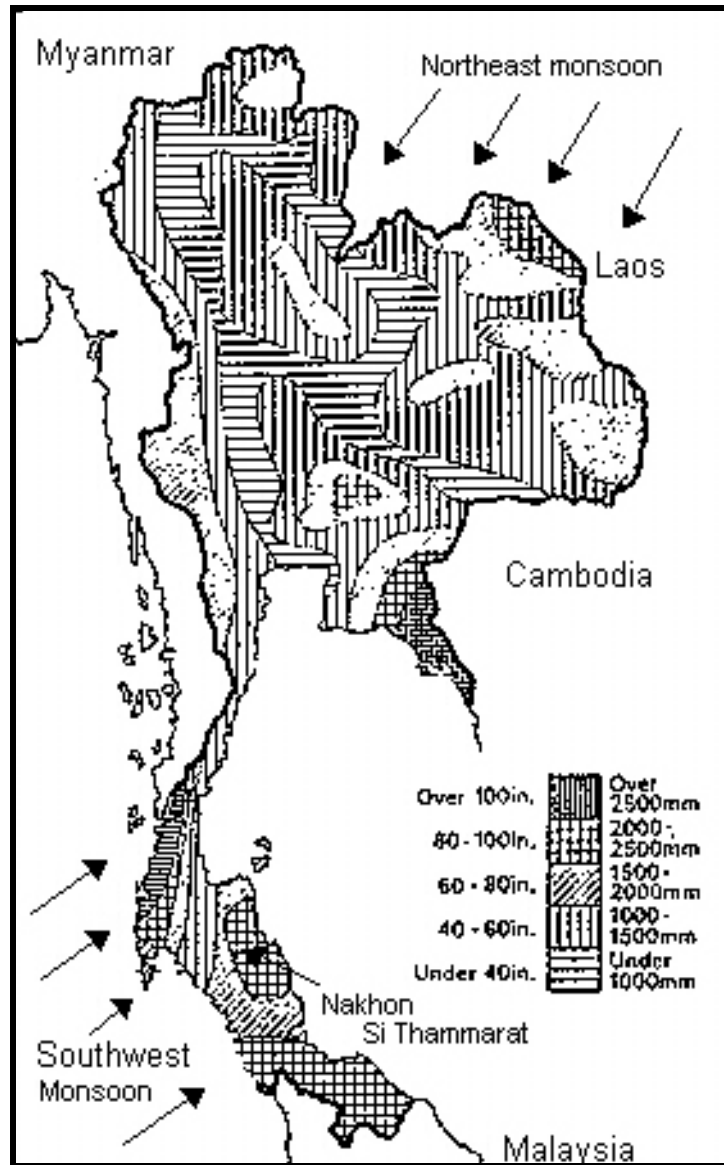
South Border: Phatthalung and Songkhla Provinces

East Border: the Gulf of Thailand

West Border: Trang and Krabi Provinces

Climate

Because of the province's location, which is adjacent to the equatorial line, and set between the Andaman Seas of the Indian Ocean in the west and the Gulf of Thailand in the east, Nakhon Si Thammarat Province is influenced by those seas throughout the year. Therefore, only two seasons of dry and rainy season can be found in this area. Since the Khao Luang Mountain divides this area into eastern and western parts, the eastern part is greatly influenced by the Northeast monsoon from the Gulf of Thailand. Heavy rainfalls result from October to January. The average annual rainfall in this region for the past 30 years is 2,382.4 millimeters. There are approximately 172 rainy days per year. The heaviest rainfall often takes place in November and December. Conversely, the western part of the city is impacted by the Southwest monsoons from the Indian Ocean and the Andaman Sea. It results in heavy rainfalls in this area from May to September.



Map 3. Average annual rainfalls of Thailand

Source: Hartmut Volk's Forest Gardens in the south of Thailand (1993)

The average temperatures of the City of Nakhon Si Thammarat are between 22.8-31.1 C or 74-88 F and the annual average temperatures are around 27.4 C or 82 F. There are insignificant temperature differences in each month (The National Park Bureau, 1991).

Access to the City of Nakhon Si Thammarat, the Village of Khiriwong and the Khao Luang National Park

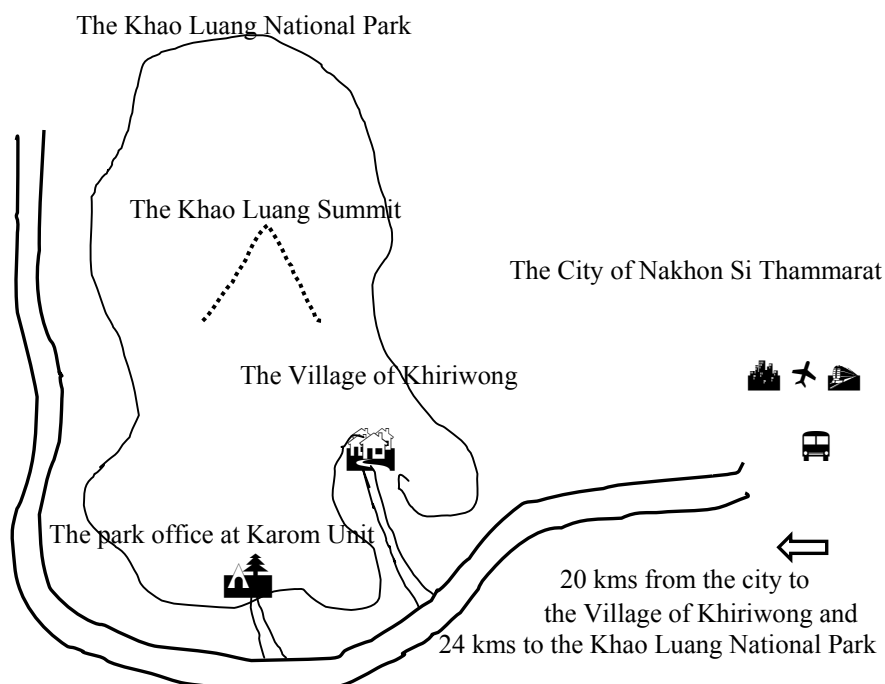
Travel to the City of Nakhon Si Thammarat or other provinces in the south is normally launched in the transportation hub of Bangkok. Land and air transportation is daily served by both public and private firms.

Car - Take Highway No. 4 on the Bangkok-Prachuap Khiri Khan-Chumphon route and then get through Highway No. 41 to Surat Thani-Amphoe Thung Song until reaching Nakhon Si Thammarat Province or Amphoe Phun Phin of Surat Thani Province. Then, take Highway No. 401 along the coastline to Nakhon Si Thammarat.

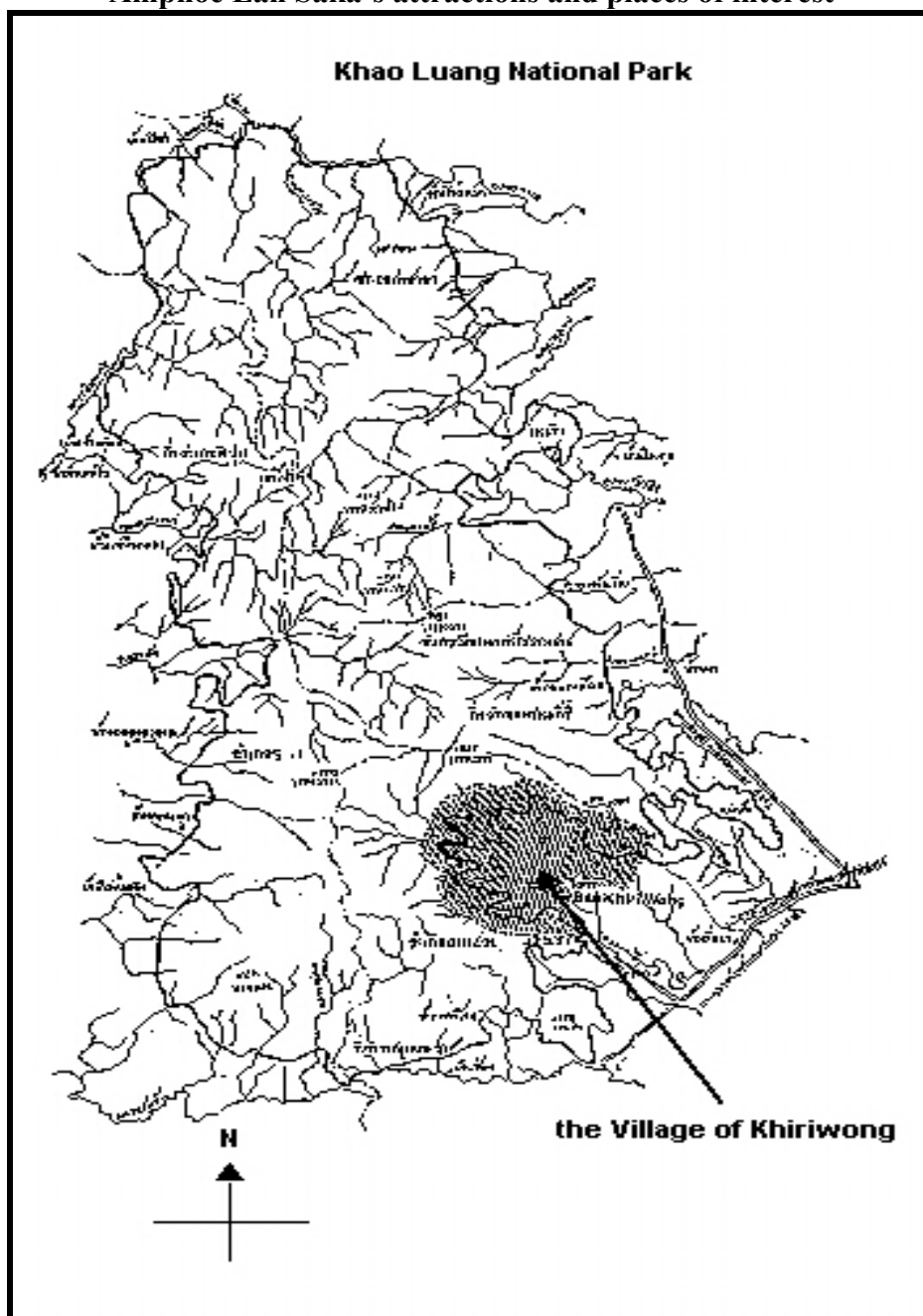
Train - Rapid and express trains are in service from Bangkok Railway Station to Na Khon Si Thammarat. It takes some 14 hours from Bangkok to get to the city and requires a reservation.

Bus - Regular and air-conditioned buses are available at the Southern Bus Terminal on Borom Ratchachonani Road. It normally takes up to 12 hours by this mode.

Air – Only domestic flights from Bangkok to Nakhon Si Thammarat are daily served by the Thai Airways International Public Co., Ltd. (THAI). One single flight takes around one hour and 15 minutes from Bangkok to the city.



Amphoe Lan Saka's attractions and places of interest



Map 4. The Khao Luang National Park and the area of the Village of Khiriwong.

Source: Harmut Volk's Forest Gardens in the south of Thailand (1993)

The Khao Luang National Park

The landscape and terrain of Nakhon Si Thammarat Province comprise a mountainous area in central part of the city. In these areas, on the ground of dense rainforests, are 15 canals and rivers flowing from the elevations. The 597 square kilometer park consists of Amphoe Muang Nakhon, Amphoe Phi Pun, Amphoe Phrom Khiri, Amphoe Lan Saka, Amphoe Cha Wang and King Amphoe Nop Phitam. The Khao Luang National Park became a national park in 1974. The park has an extensive mountain range with the Khao Luang summit, which is the highest peak in Thailand's southern region, at 1,835 meters above the sea level. The park's cloud forest is a source of rare tropical plants and animals. Nature trails and paths lead visitors to the native environment, various types of wildlife, endangered animals and plant species. Some of them can be ascertained and seen only in this park. The park's charm and natural atmosphere help local residents and visitors realize the importance of natural resources, and with its unparalleled visitor service network have all mixed to assist the park to win the 1998 Thailand Tourism Award in the natural destination genre.

Annual Visits 1992-1999

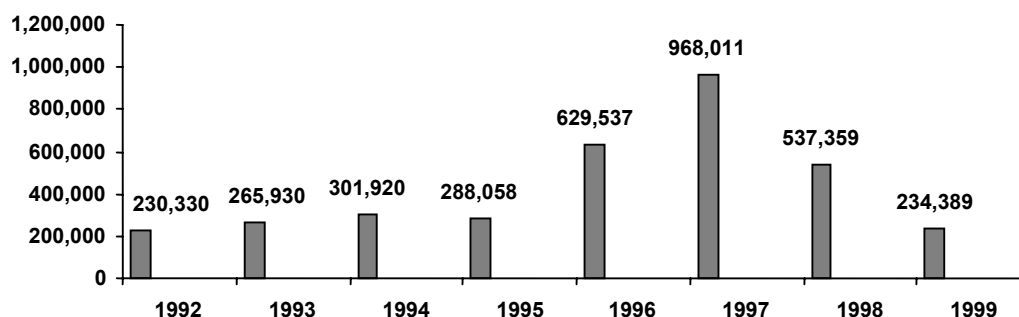


Figure 1. Number of visitors to the Khao Luang National Park
Source: Department of Forestry, the Ministry of Agriculture (2000)

Figure 1, it explains that park visitors increased during 1996-1997 because of the domestic tourism campaigns by the Thai Government to stabilize the monetary status affected by the Asian economic recession.

The central Khao Luang National Park is home to abundant indigenous wildlife. Its landscape comprises complex mountainous areas, which obstruct human approach. Mammals such as tapirs, serows, boars, gibbons, husks, bears, native birds, reptiles and rainforest insects can be found around the streams in the dense forest areas.

The Karom Waterfall

The Karom Waterfall is nine kilometers from the City of Nakhon Si Thammarat. Take Highway No. 4016 and then get on Highway No. 4015 to the left for 20 kilometers. The waterfall originates in the Nakhon Si Thammarat mountain range and falls down 19 levels. From each level of the waterfall, visitors can enjoy the natural scenery. Swimming is not allowed on some levels.

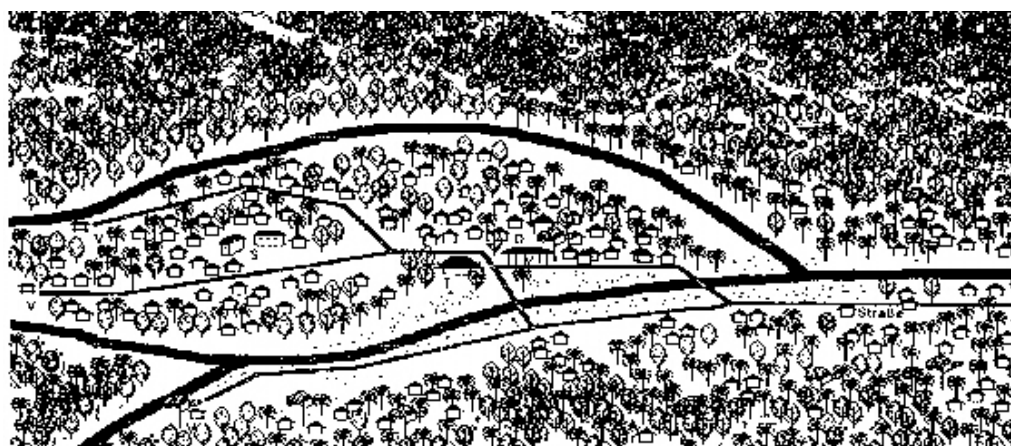
The Village of Khiriwong

The Khiriwong Village consists of four main communities of Khiriwong, Khiri Thong, Khun Khiri, Khiri Tham and of Wat Samor community. Each community is governed by its own community leader. In 2000, there are 678 households and 2,864 people in the village (Table 1).

Table 1
Demographic data of the Khiriwong Village

Communities in the Village of Khiriwong	Population	Male	Female
Khiriwong (Moo 5)	822	396	426
Khiri Thong (Moo 8)	303	153	150
Khun Khiri (Moo 9)	819	412	407
Khiri Tham (Moo 10)	920	445	475
Wat Samor (Moo 4)	N/A	N/A	N/A
Total	2,864	1,406	1,458

Source: The Health Clinic in the Village of Khiriwong, 2000.



Map 5. The Khiriwong Village

Source: Harmut Volk's Forest Gardens in the south of Thailand (1993)

Table 2
The Khiriwong Village's public utility and local infrastructure

Public utility and local infrastructure	Yes	Number	No
Fresh market	✓	2	
Village hospital			✗
Village health clinic	✓	1	
Temple with graveyard	✓	2	
Pre-elementary school	✓	1	
Elementary or grade school	✓	1	
Junior high school	✓	1	
Senior high school			✗
College or university			✗
Authorized post office	✓	1	
Tap water			✗
Commercial bank			✗
Police station			✗
Fire brigade			✗

Standard toilets are available in all of the residences. Waste management by the village's administration, including garbage collection, has been in service for the villagers since September 2000, yet, refuse or drainage from households is still substandard. Because of the village's climate and landscape, adequate rainwater can dilute and transport those substances through the sandy soil. The researcher discovered that the villagers well realize their advantageous location, so any design for the drainage is not necessary at the present time.

The Village of Khiriwong is a community with a long history, located at the mountain foot of the Khao Luang National Park in Tambon Kamlon. Most villagers' family relationships to one another are like an endless family tree. Their living is dependent on fruit cultivation and homemade products. Those agricultural products common to the area included Betel Nuts (*Areca catechu* Linn. *Palmae*), Durians (*Durio zibethinus* Linn. *Bombacaceae*), Mangosteens (*Garcinia mangostana* Linn. *Guttiferae*),

Sato (*Parkia speciosa* Hassk. *Mimosaceae*), Longsat and Longkong (*Lansium domesticum* Hutchinson. *Meliaceae*), Luk Niang (*Archidendron jiringa* Nielsen. = *Phithecolobium lobatum* Benth. = *Phithecellobium jiringa* Plain. = *Abarema jiringa* Kosterm. *Mimosaceae*), Champada (*Artocarpus integer* Merr. = *Artocarpus champeden* Lour.), Jackfruit (*Artocarpus heterophyllus* Lamk.) – *Moraceae*, Rambutan (*Nephelium lappaceum* Linn. *Sapindaceae*).



Figure 2. Betel Nuts (*Areca catechu* Linn. *Palmae*)

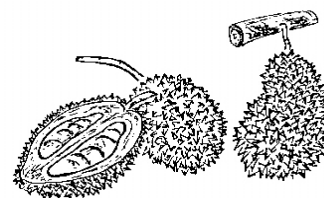


Figure 3. Durians (*Durio zibethinus* Linn. *Bombacaceae*)



Figure 4. Mangosteens (*Garcinia mangostana* Linn. *Guttiferae*)

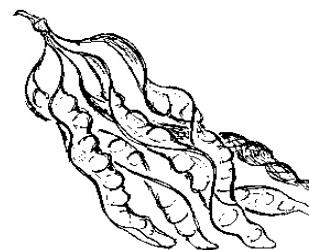


Figure 5. Sato (*Parkia speciosa* Hassk. *Mimosaceae*)

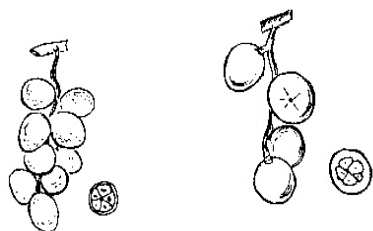


Figure 6. Langsat and Longkong (*Lansium domesticum* Hutchinson. *Meliaceae*)



Figure 7. Luk Niang (*Archidendron jiringa* Nielsen. = *Phithecolobium lobatum* Benth. = *Phithecellobium jiringa* Plain. = *Abarema jiringa* Kosterm. *Mimosaceae*)

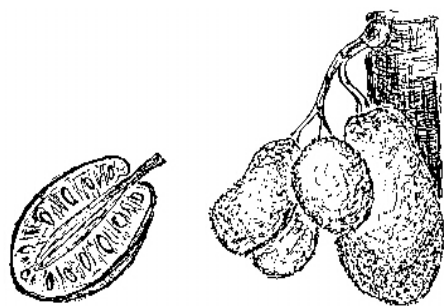


Figure 8. Jackfruit (*Artocarpus heterophyllus* Lamk.) – *Moraceae*



Figure 9. Rambutan (*Nephelium lappaceum* Linn. *Sapindaceae*)

Source: Figure 2-9, Harmut Volk's Forest Gardens in the south of Thailand (1993)

In 1988, the village was mostly destroyed by floods and landslides. Twelve villagers died in the catastrophe. The Village of Khiriwong has recovered and is now recognized as an eco-tourism management community in Thailand. The village was awarded the 1998 Thailand Tourism Award in the City and Community Genre. Furthermore, the village is renowned for its balanced man-land relationship. Local residents have recently developed and adapted tourism services to this balance. The village's activities include trekking tours, tourist guiding and home-stay programs, operated by the Ecotourism Group members in the village. Domestic and international visitors are captivated all year-round by the traditional way of life and fruit cultivation opportunities. The village is also a gateway and starting point for trekking up the Khao Luang summit. Local transportation to the village is daily provided at the Talad Yao in the City of Nakhon Si Thammarat during 0700 am to 400 pm. Driving by following the signs to the village and the park is convenient as well.

The following images depict the traditional agro-forests. Rather than deforestation for arable areas, the villagers grow various kinds of fruit trees among other wild plants and the original forests. Certain fruit trees like durians, mangosteens, satos, betel nuts, rambutans and salacca grow well. Levels of height of some plants always affect others (Figure 10). The traditional agro-forests in the Village of Khiriwong become one of the

most attractive tourist spots during January-March and July-September each year. The villagers lead their visitors to view their agricultural products and explain how they subsist on cultivating fruits. Moreover, the visitors will be asked to take part in fruit harvesting activities during their stay in the village as well.

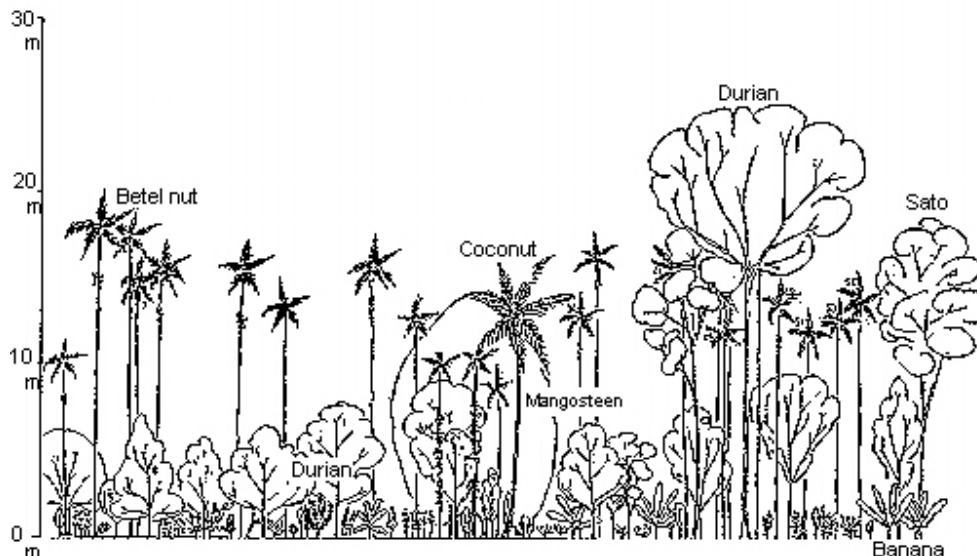


Figure 10. An example of Agro-forests in the Village of Khiriwong
Source: Hartmut Volk' Forest Gardens in the south of Thailand (1993)

The Khao Luang Summit

The Khao Luang summit with the height of 1,835 meters offers a challenging trekking tourism activity. Visitors can select this activity and enjoy the scenery along the way to the summit. Tourists interested in exploring the summit are required to take two nights and three days including the trekking time. Members of the village Ecotourism Club serve as visitors' representatives to apply for permission from the Khao Luang National Park authorities to visit the park. The club also provides tourist guides, meals, and other services.

The Khiriwong Village and the Khao Luang National Park tourism were established with these following objectives:

1. to emphasize the great value of natural resource conservation and the village's way of life;
2. to involve local residents in the village and the park tourism;
3. to better understand and respect the environment, traditional culture of the host community; and
4. to distribute equal opportunities and/or benefits to residents of the host community.

Characteristics of the tourism season in the Village of Khiriwong and the Khao Luang National Park include the following (Table 3):

Table 3

Tourism activities in the Village of Khiriwong and the Khao Luang National Park

Month	Ideal to explore the Khao Luang Peak and the Khao Luang National Park	Ideal to visit and learn the Village of Khiriwong's way of life and traditional culture	Expedient to explore the Khao Luang Peak and experience the Khiriwong Village's folklore
January	✓	✓✓	✓✓✓
February	✓	✓✓	✓✓✓
March	✓	✓✓	✓✓✓
April	✓	××	××
May	✓	××	××
June	✓	××	××
July	×	✓✓	×
August	×	✓✓	×
September	×	✓✓	×
October	×	×	×
November	×	×	×
December	×	×	×

Source: Tourism Manual, the Ecotourism Club (1998)

Legend: ✓ = Nice season for traveling to visit the Khao Luang National Park.

✓✓ = Tourism and fruit harvesting season in the Village of Khiriwong.

✓✓✓ = Best season for visiting the Khao Luang National Park and the Village of Khiriwong and concurrently, the fruit harvesting rite.

×

× = Monsoon season and changeable climate.

××

×× = No fruit and harvesting activity in the Village of Khiriwong.

Table 4

The village tourism and cost list

Expense List	Cost
1. Homestay/per person/night	100 Baht US\$ 2.70
2. Gardenstay/per person/night (A small house in the garden)	200 Baht US\$ 5.30
3. A meal/per person	60 Baht US\$ 1.60
4. Guide, porter service to the Khao Luang Peak/per person/day	300 Baht US\$ 7.90
5. Contact and service fee	500 Baht US\$ 13.20
6. Guide for touring in the Village of Khiriwong/per person/1time	150 Baht US\$ 4.0
7. The Ecotourism Club's Maintenance fee/per person/1time	100 Baht US\$ 2.70
8. Rental tent per night	50 Baht US\$ 1.30

Note: US\$ 1 equaled approximately 38.0 Baht during June-August 2000

These following package tours are provided to visitors of their preferences and selection.

Table 5

Tour program and cost list

Tour Programs	Cost per 1 person
1. A 2 night 3 day study tour of the Khiriwong Village's way of life	1,100 Baht US\$ 29.00
2. A one night 2 day study tour of the Khiriwong Village's way of life	850 Baht US\$ 22.40
3. A one day study tour of the Village of the Khiriwong Village's way of life	350 Baht US\$ 9.30
4. A 2 night 3 day study tour of the Khao Luang Peak of the Khao Luang National Park	1,300 Baht US\$ 34.20
5. A 3 night 4 day study tour of the Khiriwong Village's way of life and the Khao Luang Peak of the Khao Luang National Park	1,700 Baht US\$ 44.70

Source: Tourism Manual, the Ecotourism Club (1998)

Visitors to the Village of Khiriwong and the Khao Luang National Park are required to make reservations at least three days in advance. Tourists and visitors must understand the importance of the village's traditions, do's and don'ts, and follow the village's and park's regulations before and while touring. Those rules include:

1. if interested in studying the village's way of life, the Khao Luang National Park, the visitor or tour group should contact the Ecotourism Club directly;
2. visitors should respect the village's traditional culture and the park's untouched surroundings; and
3. no arms, drugs allowed in the village and the park.

Additional tourism suggestions are:

1. the visitors' groups to the Khao Luang Peak of the Khao Luang National Park should be between five and 10 people, with the preferred number of 15 people, including porters and local guides;
2. reservations in advance for any tourism activity;
3. visitors are able to apply for admission to travel to the Khao Luang National Park by direct contact with the park office;
4. it is prohibited to hunt wildlife or collect wild plants or litter, etc.;
and
5. visitors should obey local guides' principles or instruction for safety.

Conclusions

Thailand is an appropriate location to examine the role that protected areas and ecotourism can play in economic, social and environmental development, and in contradictions that emerge in ecotourist destinations. During the past decade, Thailand has aggressively followed the promotion of tourism as the centerpiece of its development strategy. Tourism has become Thailand's leading source of foreign income and well known among culturalists and naturalists for its natural resources, biodiversity and existing system of protected areas. Place (1998) found that ecotourism can provide an alternative economic base, but it does not take place automatically, or without social and environmental effects. If it is to be sustainable, local residents must be enabled to capture a significant amount of the economic advantages produced by tourism. Community participation is also important for identifying negative impacts on people who live in areas undergoing ecotourism development. Consequently, this study will be useful for those beneficiaries in the areas of the Village of Khiriwong and the Khao Luang National Park, who are interacting with the visitors' rewarding experiences, the environmental conservation, and local residents in terms of way of life and cultural disruption.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter highlighted a case study of the Village of Khiriwong and the Khao Luang National Park. The Khiriwong Village is a sustainable ecotourism community, whose recent transformation disclosed many of the conflicting interests in the tourism-based development phase. The village's ecotourism-based economy also defined the linkage between local, national and international levels, in general, that underlay environmental connection and economic development. As the Khiriwong Village demonstrated the potential of tourism to support local or regional development, it also showed some of the dangers of this economic strategy. Place's (1998) research noted that tourism was a notoriously unstable economic activity and subject to booms and busts. The Khiriwong Village's experience exhibited how even remote rural areas were impacted by outside events and trends, often the outcome of decisions made by visitors and over which local residents had no control. Like other tourist destinations, the Khiriwong Village was vulnerable to the uncontrollable and unexpected elements of tourism, such as the degraded surroundings and natural catastrophes. This section considered the question, who in the Khiriwong Village would benefit from tourism.

In the year 2000, the author spent two months from September 6th to November 6th on surveying and studying the local effects of tourism of the Khiriwong Village and the Khao Luang National Park in southern Thailand. The Khiriwong Village was situated in Lan Sa Ka District, Na Khon Si Thammarat Province.

The Village of Khiriwong is renowned for its natural wonders and the villagers' way of life. The village is located in the upland foothills and surrounded by the mountains of the Khao Luang National Park. Moreover, the immediate locale is also well endowed with rainforests, white water streams, waterfalls and rapids. The village was settled approximately two hundred years ago.

Because of the village's upland location, most villagers had been subsisting by cultivating fruit crops for their main income. Their predominant method of agriculture was ecologically sound and naturally simple. They utilized this natural advantage to establish and develop a new kind of village tourism consisting of trekking tourism with local companions, home-staying and unique festivals. These activities could provide tourists not only their fun, but also memorable experiences. The Khiriwong Village founded a sustainable ecotourism resource center for visitors and it functioned as a community hub, which assigned responsibilities to subgroups in the village. Besides the subsistence on agriculture and gardening, the villagers had additional careers as local guides introducing and bringing tourists to explore the Khao Luang National Park and their own cultivating lands. Some provided visitors board and home-stay accommodation. Some village members took part in the village's career groups like the Mad-Yom (Twisted and Dyed Fabric) Group, the Jak Saan (Handicraft) Group, the Food Product Group, the Samoon Prai (Herb) Group, the Kha Nom (Dessert) Group and the Om-Sap (Savings) group.

The Khiriwong Village has been named as the prototype of sustainable ecotourism of Na Khon Si Thammarat Province (Tourism Authority of Thailand Magazine, 1998). From the beginning, and in collaboration with the Tourism Authority

of Thailand, Na Khon Si Thammarat Chamber of Commerce, experts in Ecology and Kiriwong villagers from both government and academia, two extensive research strategies were identified: the Village study and National Park study.

The Khiriwong Village and the Khao Luang National Park study

The research program was launched on September 6th, 2000. The emphasis was placed on detailed studies of the Khiriwong Village, and the Khao Luang National Park in Na Khon Si Thammarat Province. This was accomplished in recognition of:

- (1) the great importance of traditional culture in the Khiriwong Village and the need for the researcher to gain familiarity with the village life and culture as expeditiously as possible;
- (2) the importance of the village as a settlement in the local habitat; and
- (3) the importance of village institutions to the village culture and, in consequence, their potential significance for the implementation of sustainable ecotourism development strategies.

Three major objectives of the village and national park study were to identify

1. whether the village's and national park's sustainable ecotourism provided the visitors with rewarding experiences;
2. whether sustainable ecotourism in the village and national park supported environmental conservation; and
3. whether sustainable ecotourism in the village and national park brought benefits to the receiving community without also causing cultural disruption.

Instrument

The ensuing primary types of information were collected in the Village of Khiriwong and the Khao Luang National Park:

To meet the objective of whether the village's and national park's sustainable ecotourism provided the visitors with rewarding experiences, surveying visitors' opinions and tourism activities provided for the visitors in the village were identified.

- (i) surveys of visitors;

Through the period of a two month's stay and participating with local residents, domestic tourists and international visitors were targeted for the information whether or not their trips to the village and the Khao Luang National Park were worthwhile in tourism and study.

- (ii) daily life, special events and activities related to tourism in the village and national park were observed and recorded;

During the stay, the researcher took part in every aspect of daily life and studied all the special circumstances happening in the village and the Khao Luang National Park.

To fulfill the objective concerning whether sustainable ecotourism in the village and national park supports environmental conservation, the following activities were studied.

- (i) village leaders and key actor interviews;

The village and community leaders, local residents with and without tourism involvement, experts in Biology and Ecology, and the chief and staffs of the Khao Luang National Park were interviewed by the author.

To achieve the objective relating to whether sustainable ecotourism in the village and national park brought benefits to the receiving community without also causing cultural disruption, this following information was identified:

- (i) village demographics;

The number of local residents in the village, number of households, which did not and did participate in sustainable ecotourism's activity

- (ii) interviews of a sample of villagers;

Twenty households taking part in sustainable ecotourism's activity were selected for interviews. Another twenty households without any tourism involvement were also interviewed by the researcher. Prepared interview questions about their benefits from this classification of tourism were used to collect appropriate and useful information.

- (iii) the village and the Khao Luang National Park tour, home-staying activity, its operation and impacts towards local culture and environment were monitored by the author.

In Herbert and Irene Ruben's work in 1995, qualitative interviewing includes an array of ways of questioning. The family of qualitative interviews is different in the degree of emphasis on culture, in the choice of the area or boundaries of the study, and in

the specific patterns of information that are researched. How the researchers interview depends on what it is the researchers are attempting to learn. Qualitative interviewing is a great challenge. Each phase of an interview brings new information and opens windows into the experiences of the people the researcher meets. It is a way of discovering what others feel and think about their worlds. Through qualitative interviews, the researcher can understand experiences and reconstruct events which the researcher did not take part in. By what the researcher perceives and learns, he can extend his intellectual and emotional approach across time, class, race, sex, and geographical divisions.

Herbert and Irene Rubin (1995) also found the following:

Culture Interviews

Culture is about how people interpret the world around them by developing shared understandings. People learn collectively how to interpret what is important and unimportant and how to behave in specific circumstances. Culture provides people with rules about how to operate in the world in which they live and work. (p. 20).

Cultural and Topic Arenas

The next phase in setting up a qualitative study is to identify its scope and boundaries, the research area that defines whom the researcher will be interviewing and about what. A topic area encompasses those who are impacted by a problem or who interact intensely on a narrow issue. A cultural arena includes those who have similar understandings, expectations, and values; such people usually have had common experiences or a shared history. A cultural arena is not defined by a single belief or rule, or by a handful of phrases unique to the group, but by a whole set of understandings that is widely shared within a group or subgroup. (p. 22).

A researcher must know how to cross the boundaries described by the above authors. They found that culture defines who is an insider and who is an outsider. It

establishes boundaries between those who should and those who should not be taught the rules. To learn about culture, a researcher doesn't need to become an insider but must be able to cross the boundaries and to be accepted as one who can be taught.

Procedures

Data collection for the village study together with the Khao Luang National Park was undertaken by spending two months in the village. In cultural interviewing, the researcher learned the rule, norms, values and understandings that were passed from one generation of group members to the next. At times, cultural interviews were conducted in remote locations or among people whose actions were considered to be unacceptable, to understand behaviors that seem unusual (Fox, 1987; Lozano and Foltz, 1990; Myers, 1992). Because the researcher was coming to the village as an outsider, it was necessary that the researcher try to view their culture as they do.

Summary reports for the village and the Khao Luang National Park were prepared for Chapter 4. The researcher examined benefits and impacts under the following three headings: the community, biophysical, routine life and culture.

The research was also conducted on such topics as the impact of sustainable ecotourism, the management of the village forests and national park for tourism, and local home-made product cooperatives, and ongoing aspects of the tourism employment sector.

Survey questionnaire and data analysis

The visitors to the Village of Khiriwong and the Khao Luang National Park

The researcher considered this means of gathering data the least time consuming procedure for the visitors. To obtain the efficient information from the visitors who traveled to the Village of Khiriwong and the Khao Luang National Park, the questions concerning their experiences were patterned after the works of Wallace and Pierce (1996) titled “An Evaluation of Ecotourism in Amazonas, Brazil”. Some changes were added for the Thailand’s situation. In addition, the questions were designed to suit the visitors’ limited time and translated into both English and Thai. Both questionnaire copies were absolutely separated. Descriptive statistics such as frequency and cross tabulation were included in the SPSS program for quantifiable survey items, which formed the majority of inquiries. Content analysis was employed to categorize all responses to open-ended questions. Survey questionnaires for visitors to the Village of Khiriwong and the Khao Luang National Park are in Appendix A and B. These questions were related to the following subjects:

1. visitors’ motivations to the village and the park visit;
2. visitors’ preferences and dislikes of the village and the park visit;
3. visitor perception of gifts, souvenirs and services unavailable in the village and the park;
4. visitors’ expectations from the trip to the village and the park;
5. visitors’ insights in sustainable ecotourism elements the village and the park best typify including visitor’s definition of sustainable ecotourism;

6. visitors' perception of local guides' training and ability;
7. visitors' sorts of transportation to reach the village and the park;
8. visitors' length of stay in the village and the park;
9. carrying capacity of the village and the park;
10. how visitors learned about the village and the park;
11. visitors' satisfaction level with the village and the park visit; and
12. visitors' suggestions on how their visits could be improved.

Furthermore, the visitors to the Village of Khiriwong and the Khao Luang National Park were asked to provide some useful information such as their place of domestic or international origin, gender, occupation, income, how they knew about the village and the national park, their favorite activity during their visit, how they came to the village and the national park, and the degree of satisfaction toward tourism products and services provided by the village and national park.

Sample selection

The researcher realized that the determined time of doing the survey, between September 6th and November 6th, 2000, was the rainy season and low tourist season. The field research timing limited the sample size. The researcher contacted the village Ecotourism Club and asked them for the record of visitor registration. The list in the registration was recorded from April 2nd, 1998 to May 5th, 2000. Normally, the registration record was manually written by the visitors and the Ecotourism Club members, which was not systematic and not always easy to comprehend. The researcher

randomly selected 21 visitors who visited the Village of Khiriwong and whose contact addresses were accurate.

Survey administration

The 21 questionnaires with cover letters in Thai were sent by the postal service to them. Seventy-seven questionnaires with cover letters were also sent by postal service to the visitors who visited the Khao Luang National Park and whose contact addresses were valid. Every questionnaire was contained in a white envelope affixed with postage stamp together with another white envelope affixed with a postage stamp and written home address so that the respondents could immediately send the questionnaires back to the researcher after completing all information. The questionnaires from the respondents were sent directly to the researcher in the Village of Khiriwong. The first questionnaire was sent to a visitor on September 1st, 2000 and the last questionnaire was received by the researcher on October 15th, 2000.

The researcher obtained additional surveys at the village and transportation center, where most tourism activity took place in the village and the Khao Luang National Park. From September 6th to November 6th, 2000, the researcher walked to the village center and worked on the survey at a coffee house during 0900 am-500 pm. When visitors came to the village and stopped over for beverage or souvenirs at the coffee house, the researcher greeted and solicited their cooperation for the questionnaire information in person. At times, when the researcher was informed by the villagers that there were visitors staying somewhere, the researcher would instantly go to greet them

and then asked their collaboration in completing the questionnaires. Through this means, the researcher obtained 60 responses during the two-month stay.

Table 6

Survey administration

Types of visitors	Number of mailed questionnaires	Number of personal interviews	Number of questionnaires returned no address	Number of questionnaires not returned
Visitors to the Village of Khiriwong (Appendix A)	21	17	0	4
Visitors to the Khao Luang National Park (Appendix B)	77	37	2	38

Table 7

Survey respondents

Areas of study	Number of questionnaires administrated on site	Number of questionnaires returned by mail	Total number of respondents
The Village of Khiriwong	69	17	86
The Khao Luang National Park	19	37	56

Visitors' and tourists' satisfaction with the trip and tourism activities held by the Village of Khiriwong and the Khao Luang National Park were scaled using a five-point scaling system: very satisfactory, satisfactory, neutral, partially satisfactory and not satisfactory. A simple mathematics and scoring system summarizes the aggregate performance of the Village of Khiriwong and the Khao Luang National Park.

Interview questions

Interview with the experts in Biology and Ecology (Appendix C and D)

Experts in Biology or Ecology, native to the area of Nakhon Si Thammarat Province, were selected to interview because of their familiarity with the village and park. Three experts in Biology and Ecology, who are currently working as college professors in the City of Nakhon Si Thammarat, provided their insights and understanding of sustainable ecotourism in the Village of Khiriwong and the Khao Luang National Park that contributes to the favorable environmental conservation.

In September 2000, three pages of interview questions, translated and printed in Thai, were given to those respondents in person and at the same time, the researcher asked questions and wrote down the conversation. One of the experts made a request to study all questions a week before the interview. The interviews were completed within two weeks in September 2000. Interview questions were prepared in two separate copies; interview questions about the Village of Khiriwong's tourism and interview questions about tourism in the Khao Luang National Park.

The interview questions for experts in Biology and Ecology addressed in the following subjects:

1. discernment of the appropriate modes of transportation to the village and the park;
2. perceptions of proper group size of visitors to meet the carrying capacity of the village and the park's tourism;
3. plans for waste disposal and management in the village and the park;

4. ideas of the accommodation design including architectural style and materials in accordance with environmental concern in the village and the park;
5. suggestions for visitor information and visitors' desired habits for ecosystem and environment in the village and the park tourism;
6. prediction of tourism impacts by tourists in the village and the park;
7. agreement with vulnerable tourism activities provided by the village and the park; and
8. experts' recommendations of the ideal tourism to the village.

In addition, gender, occupation, including positions and age, were obtained for the study.

Interview questions

The park staff of the Khao Luang National Park, at Karom Unit (Appendix E)

Regarding the objective that emphasizes sustainable ecotourism in the Village of Khiriwong and the Khao Luang National Park, park personnel were selected and asked if sustainable ecotourism in the park is an instrument of environmental conservation. The interview questions for the park staff are described as follows:

1. the regular mode of transportation and equipment required to travel to the park;
2. the maximum number of visitors the park should allow each year;
3. waste disposal management in the park;
4. architectural style and facilities in the park;

5. ways to provide information about the park and protected areas to visitors in term of environmental conservation;
6. the environmental impacts of tourism activities arranged by the park on ecosystems;
7. consensus that tourism can be employed as a means to protect the park;
8. the collaborative relationship between the park and the Village of Khiriwong;
9. the ideal trips to protected areas for the visitors;
10. suggestions for improving the experience of park visitors;
11. suggestions for mitigating the impacts of park visitors on the ecosystems; and
12. visitors' income, gender and occupation.

Sample selection

The Khao Luang National Park Headquarters' office (Karom Unit) is located in Tambon Khao Kaew, Amphoe Lansaka in the Province of Nakhon Si Thammarat. Five park staff who are currently working as fulltime officers were selected for the interview based on their responsibilities and working positions.

Table 8

Sample selection at the Khao Luang National Park

Position	Number of interviewees
Park chief	1
Chief assistant	2
Park ranger	2
Total	5

Survey administration

The researcher began doing interviews in October 2000. Regular transportation to the Khao Luang National Park at Karom Unit was by local pick-up taxi. It took approximately 30 minutes from the Village of Khiriwong to the main road and then another 15 minutes by another local pick-up taxi to the entrance of the park. The researcher continued walking for 15 minutes more to the park office at Karom Unit. The researcher traveled to the park office each week in October. Appointments were made in advance because of their work shifts, which were varied. Therefore, the perfect time for the interviews was during 0730-1100 am on weekdays.

Interview questions

Interview with the local residents in the Village of Khiriwong (Appendix F)

Samples of local residents were solicited with the following questions about the direct economic and other cost benefits to the local community. Subjects of interest for the research included:

1. local perceptions of changes in the village caused by tourism in ecological, economic, political and social aspect;
2. tourism impact on local employment in the village;
3. tourism that brings economic benefits to support the village's services;
4. the villagers with direct involvement and without any involvement in tourism;
5. how the villagers utilize their natural resources to support the village tourism;
6. the villagers' attitudes towards sustainable ecotourism;
7. what is still required by the village to support sustainable ecotourism;
8. the villagers' quality of life after the advent of tourism;
9. negative impacts of tourism on the Village of Khiriwong;
10. collaboration and relationship in tourism between the Village of Khiriwong and the Khao Luang National Park;
11. operations and practices made by the village to benefit the environment; and
12. the villagers' income, gender, and main and second occupation.

Sample selection

The Village of Khiriwong comprises 678 households of 5 communities; partly Moo 4, Moo 5, Moo 8, Moo 9 and Moo 10. The total population number is 2,864 in 2000. 20 local residents with tourism involvement and 20 local residents without any tourism relation from 5 communities were randomly selected by the researcher for the interviews.

Table 9

Sample selection

Communities in the Village of Khiriwong	Local residents with tourism involvement	Local residents without tourism involvement	Number of interviewees
Wat Samor (Moo 4)	2	3	5
Khiriwong (Moo 5)	5	4	9
Khiri Thong (Moo 8)	3	3	6
Khun Khiri (Moo 9)	5	5	10
Khiri Tham (Moo 10)	5	5	10
Total	20	20	40

Local residents with tourism involvement were randomly chosen from the membership manifest published by the Ecotourism Club in the Village of Khiriwong. There are a total of 160 members. The villagers taking part in tourism activities were classified as porters, tourist assistants, local guides, home-stay hosts, career group partakers, etc. After choosing from five communities, the researcher asked the host family or the villagers nearby to take the researcher to the interviewees.

Survey administration

Throughout the two-month stay in the Village of Khiriwong, the researcher often walked and occasionally asked someone for a ride to the interview, if the way to get to the interviewees was a long distance or if was raining with the thunderstorms.

The researcher interviewed the local residents in person when they were not working. The researcher introduced the reasons of the interview then asked the interviewee if the questions were complicated or indiscernible, so that the researcher could repeat and make the questions simpler. It usually took up to one hour to collect complete information from one interviewee.

Interview questions

The researcher adopted the methods of structuring a qualitative interview from Herbert and Irene Rubin (1995). Three categories of qualitative questions were introduced in this study.

Main Question: Before talking with the interviewee, the researcher prepares several main questions in order to launch and lead the conversation. Main questions may change during the course of the research, as the researcher learns what to ask and of whom to ask it.

Probes: Probes function as a support to help specify the level of depth the researcher wants. They signal the interviewees that the researcher wants longer and more detailed information. It helps the interviewee to keep explaining. Also, it asks the interviewee to finish up a particular answer currently being provided. The researcher may ask the interviewee to clarify opaque or missing data necessary to understand the answer. Probes can indicate that the researcher is paying attention.

Follow-Up Questions: Main questions establish the structure for the interview, control the questioning on the topic, and relate what is asked in the personal interview to the overall design. Probes elucidate and enlarge the answers, thus making them

comprehensible, and mark the interviewees about the anticipated level of depth. They also reassure the interviewee that the researcher is attentive to the answers. Follow-Up questions are designed to get the depth that is a gist of qualitative interviewing by furthering themes that are found, describing the context of answers, and surveying the implications of what has been stated.

Limitations of study

Between September 6th-November 6th 2000, interviews, observations, questionnaire administrations were conducted on-site in the Village of Khiriwong and the Khoa Luang National Park. There were a number of limitations to this study. The village's landscape is located in a remote, rural area engulfed with lush mountains, extensive rain forests and a plantation area in central Na Khon Si Thammarat Province. Moreover, there were few private lodging accommodations such as resorts available in the area. As a result, the cost of room and board for two months was fixed and unaffordable by the researcher. The researcher received significant hospitality and stayed in the home of a local resident. Food and room were provided through the time of the study. Additional limitations were classified as follows:

1. The expenditure of the survey was considerable because of the transportation.

It was necessary for the researcher to travel to interview people involved in this study. However, through the survey period, the researcher mostly walked to do interviews and the survey. It was usual that the generous villagers would ask and offer the researcher lifts or other kinds of transportation, like bicycle, or even truck, to save time and energy.

2. The interpretation of the local dialect to official Thai language and English could sometimes generate misunderstanding and misperceptions. The researcher would ask the respondents to repeat and translate into Thai again. On-lookers, while doing survey, often gave their help to the researcher.
3. The communication by the researcher with the study advisors in the United States of America was inconvenient. The researcher went to the City of Nakhon Si Thammarat every other week to contact and report any progress of the study with study advisors by writing e-mail.
4. Interviewer's bias could be present but is unknown.

Southern Thailand has only two seasons, dry and rainy. The City of Nakhon Si Thammarat is set on the peninsula between the Andaman Sea and the Gulf of Thailand. It is a natural landscape that inevitably faces monsoons and storms. Conducting the survey from September 6th-November 6th 2000 presented an uncertain period climatically and logistically to the researcher, tourists and residents. These conditions partly resulted in a distortion of information applied to tourism in the area.

CHAPTER 4

RESULTS AND DATA ANALYSIS

This study investigated visitors to the Village of Khiriwong and the Khao Luang National Park, experts in Biology and Ecology, park personnel at the Khao Luang National Park and local residents in the Village of Khiriwong. The visitors to the village and the park were asked to determine their satisfaction with the village and park tourism. Experts in Biology and Ecology were requested to provide their perceptions of tourism activities provided by the village and the park, and the aspect of conservation. Park personnel were also asked to provide their perceptions of park management as related to tourism. Local residents with/without tourism involvement were also asked to provide their notion of tourism in their community.

In this chapter, the three objectives were addressed and compared with the results of the survey. The objectives emphasized the ensuing: 1) to determine whether sustainable ecotourism provides the visitors with rewarding experiences, 2) to determine whether sustainable ecotourism contributes to environmental conservation, and 3) to determine whether sustainable ecotourism brings economic benefits to the receiving community without also causing cultural disruption.

Tourism in the Village of Khiriwong

(Appendix A)

The survey results of visitors to the Village of Khiriwong, which determined whether sustainable ecotourism provides them with rewarding experiences, were demonstrated in the ensuing orders:

1. motivations for visiting the village;
2. preferences about village stay;
3. dislikes of the village stay;
4. souvenirs and services visitors would like to have available in the village;
5. expectations from the trips to the village;
6. perceptions in the elements of sustainable ecotourism in the village;
7. perception of the local guides' training and ability;
8. transportation to the village;
9. length of stay;
10. accommodations in the village;
11. number in travel party;
12. how the visitors learn about the village;
13. gender, nationality and place of origin;
14. occupation, income, age; and
15. level of satisfaction with the village tourism.

Respondent profile

Of the total respondents to the Village of Khiriwong, 86 were visitors who traveled to the village during the past two years (1998-1999). Sixty-nine were surveyed in person during September 6th to November 6th, 2000.

The data relating to the number of respondents and how to gain information from visitors who traveled to the Village of Khiriwong were demonstrated in Table 10. The respondents by mail were 17 (19.55%) and the respondents who were asked to complete survey questionnaires in person were 70 (80.45%). The total respondents about the village tourism were 87.

Table 10

Number of respondents about the village tourism

Respondents	Number of respondents	Percent of respondents
By mail	17	19.55
In person	70	80.45
Total	87	100.00

n=87

The responses regarding the visitors' motivations for visiting the Village of Khiriwong were displayed in order from the largest number to the smallest number (Table 11). Of the 87 respondents, seventy-one respondents (81.6%) replied that their ultimate motivation to visit the village was to view the natural landscapes and environment. The second reason for visiting the village was local people and way of life, chosen by 55 (63.2%) respondents. The third ranking was for an overnight stay in the host community.

Moreover, there were 12 respondents who selected the item “Other”. The respondents reasoned that the village has long been sought, since after being awarded the best ecotourism community in Thailand. Some said “the Savings Group was interesting to learn” and “the village’s weather and climate was fascinating”.

Table 11

Motivations for visiting the Village of Khiriwong

Motivations	Number of respondents	Percent of respondents
Natural landscapes, environment	71	81.6
Local people, way of life	55	63.2
Overnight stay	37	42.5
Village history	30	34.5
Fruit cultivation, consumption	27	31.0
Handicrafts, souvenirs	26	29.9
Cultural activities	24	27.6
Other	12	13.8

n=87

Note The respondents were able to check any preferences in this question. Multiple selections were possible from each respondent.

Table 12 disclosed the data related to visitors’ preferences during the park stay. More than half of the respondents (64.4%) selected the villagers’ hospitality for their reason for staying in the village. Closely followed by 47 respondents (54.0%) who desired to experience new and different lifestyles. Forty-seven respondents (54.0%) liked to obtain ecotourism knowledge and experiences. There were eight respondents choosing the item “Other” and provided different reasons for their preference, such as village’s consolidation, no throng of tourists, villagers’ unity, local products, villagers’ geniality, agro-forests in the village and fruit cultivation activity.

Table 12
Visitors' preferences during the village stay

Preferences	Number of respondents	Percent of respondents
Hospitality of villagers	56	64.4
Experiencing new and different lifestyles	47	54.0
New ecotourism knowledge and experiences	47	54.0
Nice weather	35	40.2
Rainforest scenery	33	37.9
Trying local foods	26	29.9
New kind of tourism	14	16.1
Meeting people with similar interests	14	16.1
Being daring and adventuresome	12	13.8
Other	8	9.2

n=87

Note The respondents were able to check any preferences in this question. Multiple selections were possible from each respondent.

The researcher, however, provided an open-ended question relating to their dislikes of the village tourism (Table 13). Forty-six out of 87 visitors to the villages added their ideas about their dislikes. Six of 46 respondents found that the weather was their obstacle to travel around the village among rains. Seven respondents stated that the traveling period was too short to learn more about the locals and nature. Ten respondents discovered that the transportation to the village was inconvenient and without road signs. Some respondents had trouble contacting the village information because there was no visitor center to help them. More than that, contacting via telephone was ineffective so they wasted their time and lacked motivations to travel to the village. Five respondents found that the households in the village were mostly modernized by the villagers.

Table 13

Visitors' dislikes of the village stay

Dislikes	Number of respondents
Contacting for village information was inconvenient.	12
Transportation to the village was inconvenient.	10
The village stay including the activities was too short.	7
The weather was not favorable.	6
The villagers' houses were mostly modernized.	5
The resort accommodation style was not landscaped to the surroundings.	1
There was no map provided in the village	1
The road condition was unsafe.	1
The home-stay was inconvenient.	1

Table 14 listed the kind of gifts and souvenirs the visitors would like to have available when visiting the village. Forty-nine respondents (56.3) selected books and other printed materials. Thirty respondents liked to have shirts printed “Khiriwong” on. Twenty-six respondents selected item “Other” featuring gifts and souvenirs like dry and preserved foods and fruits, fresh fruits, village’s photos, handicrafts, postcards and textile products.

Table 14

Gifts and souvenirs visitors would like to have available in the village

Gifts and souvenirs	Number of respondents	Percent of respondents
Books and other printed materials	49	56.3
Shirts printed “Khiriwong”	30	34.5
Other	26	29.9
Key holders	21	24.1

n=87

Note The respondents were able to check any preferences in this question. Multiple selections were possible from each respondent.

Services that visitors would like to have available in the village were revealed in Table 15. Fifty-one respondents (58.6%) would like to have local and long distance telephones available in the village. From the survey, the author found that there were only four public telephones installed around the village. Weather forecasts were second ranked by 27 respondents (31.0%). Grocery stores were chosen by 24 respondents (27.6%). Thirteen respondents (14.9%) selected the item “Other”. Bicycle rental, tourist information center with local representatives, streetlights for safe transportation were those services the visitors would like to have available.

Table 15

Services visitors would like to have available in the village

Services	Number of respondents	Percent of respondents
Local and long distance telephones	51	58.6
Weather forecasts	27	31.0
Grocery stores	24	27.6
Post office	23	26.4
Car rental	15	17.2
Other	13	14.9
Internet café	6	6.9
Laundry service	5	5.7
Pubs and bars	2	2.3
Fast foods like McDonalds	1	1.1
Casinos and gambling	0	0

n=87

Note The respondents were able to check all preferences in this question. Multiple selections were possible from each respondent.

Visitors’ expectations from the trips to the village were depicted in Table 16. Sixty-nine respondents (79.3%) selected being close to nature as their first option. Sixty-five respondents (74.7%) chose learning about the way of life and culture in the village

and 34 respondents (39.1%) opted for viewing new landscapes for their second and third choice. Seven respondents (8.0%) chose the item “Other”. The village’s interesting background, the community’s consolidation and self-support, and the village’s tourism management were their expectations from the village’s stay.

Table 16

Visitors’ expectations from the trips to the village

<u>Expectations</u>	<u>Number of respondents</u>	<u>Percent of respondents</u>
Being close to nature	69	79.3
Learning about way of life and culture	65	74.7
Viewing new landscapes	34	39.1
True relaxation	24	27.6
Having fun and being entertained	20	23.0
Doing something new	18	20.7
Meeting new people	17	19.5
Other	7	8.0

n=87

Note The respondents were able to check any preferences in this question. One or more selections were possible from each respondent.

Table 17 was an explanation perceived by the visitors of sustainable ecotourism elements the village best meets. Forty-six respondents (52.9%) found that the village tourism supports and sustains local ecosystems. Meanwhile, forty-three respondents (49.4%) experienced that tourism in the village encourages guests to be concerned about, and protective of the host community and environment. Twenty-five respondents (28.7%) discerned that the village tourism allows guests to gain an understanding of the region visited.

Table 17

Visitors' perceptions of sustainable ecotourism elements the village best meets

Sustainable ecotourism elements	<u>Number of respondents</u>	Percent of respondents
Tourism which supports and sustains local ecosystems	46	52.9
Tourism which encourages guests to be concerned about, and protective of the host community and environment	43	49.4
Tourism which allows guests to gain an understanding of the region visited	25	28.7
Tourism which maintains the full range of recreational, educational and cultural opportunities within and across generations	23	26.4
Tourism which is based upon activities or designs which reflect the character of an area	13	14.9
Tourism which has social equity and community involvement	11	12.6
Tourism which is concerned with the quality of experiences	11	12.6
Other	0	0

n=87

Note The respondents were expected to check only two preferences in this question. One selection was possible from each respondent.

Table 18 showed visitors' perception of local guides' training and ability. Sixty-one respondents (70.1%) informed that local guides were friendly to them during the village visit. Forty-seven respondents (54.0%) considered that local guides were

knowledgeable about the local culture. Local guides were described as knowledgeable about the ecology and environment by 39 respondents (44.8%). Twelve respondents (13.87%) selected item “Other”. The respondents reasoned that local guides were knowledgeable about the village’s history, places of interest, the village’s current situation and impending problems influenced by the society outside. Yet, there were some visitors traveling around the village without local guides.

Table 18

Visitors’ notion of local guides’ training and ability

Guides’ training and ability	Number of respondents	Percent of respondents
Friendly	61	70.1
Knowledgeable about the local culture	47	54.0
Knowledgeable about ecology and environment	39	44.8
Helpful	35	40.2
Knowledgeable about the plants and animals	15	17.2
Other	12	13.8

n=87

Note The respondents were able to check any preferences in this question. Multiple selections were possible from each respondent.

Table 19 portrayed modes of transportation the visitors used to visit the Village of Khiriwong. Trains were selected by 31 respondents, (36.0%) who came from other distant provinces. Twenty-three respondents (26.7%) used cars to travel to the village. Twenty-two respondents (25.6%) selected buses for their transportation to the village. Nine respondents (10.5%) selected item “Other” which characterized transportation modes of hired-van and airplane. From the City of Nakhon Si Thammarat to the village,

the visitors needed to use another mode of transportation to the village, which was approximately 20 kilometers.

Table 19

Visitors' transportation to the Province of Nakhon Si Thammarat

Modes of transportation	Number of respondents	Percent of respondents
Train	31	36.0
Car	23	26.7
Bus	22	25.6
Other	9	10.5
Plane	1	1.2
Total	86*	100.00

n=87

*Number varies due to non-respondents.

Table 20 manifested modes of transportation from the city to the village. Thirty-six respondents (41.9%) used cars to travel to the village. Thirty-one respondents (36.0%) selected item “Other”, which featured hired-vans, pick-up taxis, buses and walking to the Village of Khiriwong.

Table 20

Visitors' transportation from the City of Nakhon Si Thammarat to the village

Modes of transportation	Number of respondents	Percent of respondents
<u>Car</u>	36	41.9
Other	31	36.0
Bus	18	20.9
Walk	1	1.2
Total	86*	100.00

n=87

*Number varies due to non-respondents.

Table 21 was an indicator of the visitors' length of stay in the village. Thirty respondents (35.3%) spent three to five days on an overnight stay and attending

the village tourism activities. Twenty-six respondents (30.6%) spent two days (equaled one night and one day) in the village. Twenty-four respondents (28.2%) spent their whole day (from dusk till dawn) and five respondents (5.9%) spent a few hours in the village.

Table 21

Visitors' average length of stay in the village

Length of stay	Number of respondents	Percent of respondents
Three to five days	30	35.3
Two days	26	30.6
One day	24	28.2
Less than one day	5	5.9
Total	85*	100.00

n=87

*Number varies due to non-respondents.

Table 22 demonstrated how the visitors stayed in the host community. Forty-seven respondents (58.8%) stayed with host families. Seventeen respondents (21.3%) selected item "Other" featuring staying in resorts established and owned by the villagers. Ten respondents (12.5%) did not overnight in the village. Some put up their tents in the village area.

Table 22

Visitors' accommodations during their stay in the village

Accommodation	Number of respondents	Percent of respondents
Home stay	47	60.1
Other	18	21.3
No overnight	10	12.5
Camping, tents	5	6.3
Total	80*	100.00

n=87

*Number varies due to non-respondents.

Number in the travel party was showed in Table 23. Forty-one respondents (48.8%) stated that they visited the village as group of travelers varying from 15 to 60. Twenty-five respondents (29.8%) traveled to the village with more than three. From the survey, there was only one respondent who traveled to the village alone.

Table 23

Visitors' number in travel party

Number in travel party	Number of respondents	Percent of respondents
Other	41	48.8
More than three people	25	29.8
Three	12	14.3
Two	5	6.0
One	1	1.2
Total	84*	100.00

n=87

*Number varies due to non-respondents.

In Table 24, how the visitors understood the village tourism was clarified. Thirty-eight respondents (44.7%) selected item “Other”. They knew the village by the recommendation of their schoolteachers, by the Tourism Authority of Thailand (TAT), by watching the documentary tourism program featuring the village on television, by the documentary magazines and by the Lonely Planet Guidebook to travel to the village.

Table 24

How visitors learned about the village

Medium	Number of respondents	Percent of respondents
Other	38	44.7
Word of mouth	30	35.3
Friends	26	30.6
Travel magazines	25	29.4
Internet web site	3	3.5
Travel agent	2	2.4
Total	86*	100.00

n=87

*Number varies due to non-respondents.

Note The respondents were able to check any preferences in this question. Multiple selections were possible from each respondent.

Table 25 showed the visitors' gender which were categorized as 47 female (56%) and 37 male respondents (44.0%).

Table 25

Visitors' gender

Visitors' gender	Number of respondents	Percent of respondents
Female	47	56.0
Male	37	44.0
Total	84*	100.00

n=87

*Number varies due to non-respondents.

Visitors were also classified by their nationalities (Table 26). The result demonstrated that most of the visitors to the village were Thai (95.4%). There were four foreign tourists (4.6%) from Germany, Australia and France visiting the village during the survey.

Table 26Visitors' nationality

Visitors' nationality	Number of respondents	Percent of respondents
Thai	83	95.4
Western	4	4.6
Total	87	100.00

n=87

As shown in Table 27, visitors to the village came from various part of the country and from other world regions. Twenty-five respondents (28.7%) came from central Thailand. Twenty-one respondents (24.1%) came from the nearby provinces of the south. Sixteen respondents (11.5%) came from the capital city of Bangkok whereas only 10 visitors (11.5%) who were the citizens of Nakhon Si Thammarat Province traveled to the village.

Table 27Visitors' place of origin

Place of origin	Number of respondents	Percent of respondents
Central Thailand	25	28.7
Southern Thailand	21	24.1
Bangkok	16	18.4
Nakhon Si Thammarat	10	11.5
Northeastern Thailand	5	5.7
Northern Thailand	3	3.4
Eastern Thailand	3	3.4
Europe	3	3.4
Australia	1	3.4
Total	87	100.00

n=87

In Table 28, thirty-nine respondents (46.4%) were student travelers to the village. Seventeen respondents (20.2%) were self-employed or had their own businesses. Twelve respondents (14.3%) were government officials working in schools or other government

departments. Five respondents picked out item “Other” characterizing themselves as farmers and gardeners.

Table 28

Visitors’ occupation

Visitors’ occupation	Number of respondents	Percent of respondents
Student	39	46.4
Self-employed	17	20.2
Government service	12	14.3
Employee	10	11.9
Other	5	6.0
Unemployed	1	1.2
Total	84*	100.00

n=87

*Number varies due to non-respondents.

From the survey outcome (Table 29), thirty respondents (37.0%) earned less than US\$ 100 per month. Seventeen respondents (21.0%) received between US\$ 101-200 per month. There were 10 respondents (12.3%) who earned more than US\$ 500 per month.

Table 29

Visitors’ average income

Visitors’ average income per month	Number of respondents	Percent of respondents
Less than US\$ 100	30	37.0
Between US\$ 101-200	17	21.0
Between US\$ 201-300	11	13.6
Between US\$ 301-400	6	7.4
Between US\$ 401-500	7	8.6
More than US\$ 500	10	12.3
Total	81*	100.00

n=87

*Number varies due to non-respondents.

Table 30 described the visitors' age categories. Fifty-four respondents (63.5%) were the travelers between 20-29 years old. Thirteen respondents (15.3%) were between 30-39 years old of age. There were four respondents (4.7%) between 10-19 years old.

Table 30

Visitors' age

Visitors' age	Number of respondents	Percent of respondents
10-19	4	4.7
20-29	54	63.5
30-39	13	15.3
40-49	7	8.2
50-59	7	8.2
Total	85*	100.00

n=87

*Number varies due to non-respondents.

Eighty-one respondents (93.1%) replied that they would travel to the village again, whereas, there was one respondent who would not. Five respondents (5.7%) were not able to predict a future visit.

Table 31

Visitors' plans to visit the village again

Visitors will come to visit the village again	Number of respondents	Percent of respondents
Yes	81	93.1
No	1	1.1
Not sure	5	5.7
Total	87	100.00

n=87

Fifty-seven respondents (67.1%) of the totaling 87, expressed their very satisfying and rewarding experiences of the village's visit. Sixteen respondents (18.8%) also were satisfied with their trip to the village. Importantly, there were no visitors indicating an unsatisfying village tourism experience.

Table 32

Visitors' satisfaction with their visits to the Village of Khiriwong

Visitors' satisfaction with their visit to the village	Number of respondents	Percent of respondents
Very satisfied	57	67.1
Satisfied	16	18.8
Neutral	10	11.8
Partially satisfied	2	2.4
Total	85*	100.00

n=87

*Number varies due to non-respondents.

Tourism in the Khao Luang National Park

(Appendix B)

The survey results of visitors to the Khao Luang National Park, which determined whether sustainable ecotourism provides them with rewarding experiences, were demonstrated in the following subjects of interest to the researcher:

1. motivations for visiting the park;
2. preferences about the park tourism;
3. gifts, souvenirs and services visitors would like to have available in the park;
4. expectations from the trip to the park;
5. perceptions in the elements of sustainable ecotourism in the park;
6. opinion of the best characteristics the park provided;
7. notion of the local guides' training and ability in the park;
8. transportation to the park;
9. length of stay;
10. accommodations in the park;
11. number in travel party;
12. how visitors learn about the park;
13. gender, nationality and place of origin;
14. occupation, income, age; and
15. level of satisfaction with the park tourism.

Respondent profile

Of the total number of respondents of visitors who traveled to the Khao Luang National Park, 56. 37% were visitors who traveled to the village during the past two years (1998-1999). Nineteen were asked to complete the survey in person.

Table 33 demonstrated visitors' motivations for a park visit. Mountains were most frequent choice by 45 respondents (80.4%). Forty respondents (71.4%) were attracted to the park vegetation. Thirty-four of the respondents (60.7%) were motivated by sightseeing. Thirteen respondents selected item "Other". Traveling to the park was a good indicator of their strength and endurance; forest tourism, new experiences like local people, foods and dialect, and the park staff and displays motivated them to the park.

Table 33

Visitors' motivations for visiting the Khao Luang National Park

Visitors' motivations for visiting the park	Number of respondents	Percent of respondents
Mountains	45	80.4
Diversity of vegetation	40	71.4
National park sightseeing	34	60.7
Waterfalls, streams	31	55.4
Rainforest walks	20	35.7
Rainforest day trips	15	26.8
Other	13	23.2
Wildlife viewing	9	16.1

n=56

Note The respondents were able to check any preferences in this question. Multiple selections were possible from each respondent.

The visitors to the park depicted their preferences after visiting the park, in Table 34. Fifty-one respondents (91.1%) selected their predominant likes of natural beauty, waterfalls and streams. Preference for landscapes, geographic location and mountains were rated second by 42 respondents (75%). Preference for native wild plants was chosen by 40 respondents (71.4%). Only three respondents (5.4%) selected the park's exhibition for their preference.

Table 34

Visitors' preferences after visiting the park

Visitors' preferences	Number of respondents	Percent of respondents
Natural beauty, waterfalls and streams	51	91.1
Landscapes, geographic location and mountains	42	75.0
Native wild plants	40	71.4
Climate or weather	21	37.5
Park staff and guides	14	25.0
Native wild animals	10	17.9
Other	5	8.9
Park's exhibitions	3	5.4

n=56

Note The respondents were able to check any preferences in this question. Multiple selections were possible from each respondent.

The researcher also prepared an open-ended question to ask the respondents about what they disliked or felt unsatisfactory about the park tourism. Currently, most trips to the park and expressly to the Khao Luang summit were provided and administered by the Ecotourism Club in the Village of Khiriwong. Thirty-two of 56 found that the trips to Khao Luang should be remodeled and improved. Six respondents were not satisfied with the fees and expenses of food, overnight stay provided by the local residents on the

summit. Some respondents mentioned that they were greatly scared of leeches, which were commonly found along the way in the park. Inexperienced local guides, unsanitary toilets, boisterous weather, inconvenient way to the park, no signs for pre-caution while traveling in the park were the comments after visiting the Khao Luang. Respondents stated that they spent too much time on communicating with the Ecotourism Club for their trips to the park.

Table 35 demonstrated gifts and souvenirs visitors would like to have available in the park. Thirty-six respondents (65.5%) would like to have books and other printed materials available. Twenty-five respondents (45.5%) preferred to have shirts printed “Khao Luang”. Twelve respondents chose item “Other” which was classified into local foods and products, postcards and pictures, certificates, wild plants for sale, and park personnel knowledgeable in environment and wildlife. There were two respondents who would not prefer to have anything else in the park.

Table 35

Gifts and souvenirs visitors would like to have available in the park

Gifts and souvenirs	Number of respondents	Percent of respondents
Books and other printed material about Khao Luang	36	65.5
Shirts printed “Khao Luang”	25	45.5
Key holders	15	27.3
Other	12	21.8

n=56

Note The respondents were able to check any preferences in this question. Multiple selections were possible from each respondent.

In Table 36, three most frequently chosen services that visitors would like to have available in the park were local and long distance telephones by 34 respondents, grocery stores by 27 respondents and weather forecasts by 25 respondents. Seven respondents selected item “Other”. They would like to have knowledgeable park guides, local food service in the park area, first-aid service, and more toilets and restrooms. There were two respondents who preferred nothing else available in the park.

Table 36

Services visitors would like to have available in the park

Services	Number of respondents	Percent of respondents
Local and long distance telephones	34	61.8
Grocery stores	27	49.1
Weather forecasts	25	45.5
Car rental	14	25.5
Post office	7	12.7
Other	7	12.7
Internet café	2	3.6
Fast foods like McDonalds	2	3.6
Laundry service	2	3.6
Casinos and gambling	0	0
Pubs and bars	0	0

n=56

Note The respondents were able to check any preferences in this question. Multiple selections were possible from each respondent.

The responses in Table 37 were rated from the most frequently chosen number to the least chosen number. Fifty-two of 56 respondents (92.9%) selected being close to nature as their highest expectation of visiting the park. Thirty-three respondents (58.9%) wanted to view new landscapes. Thirty respondents expected to have fun and be entertained. Six respondents selected item “Other” which characterized the expectations

to view the untouched natural environment, to observe endemic wild plants in the park, to see rare wild animals, to prove his traveling stamina, and to experience the rainforest.

Table 37

Visitors' expectations on visiting the park

Expectations	Number of respondents	Percent of respondents
Being close to nature	52	92.9
Viewing new landscapes	33	58.9
Having fun and being entertained	30	53.6
Learning about way of life and culture	26	46.4
True relaxation	23	41.1
Doing something new	13	23.2
Other	6	10.7
Meeting new people	5	8.9

n=56

Note The respondents were able to check any preferences in this question. Multiple selections were possible from each respondent.

Visitors were asked to identify their perception of the park's sustainable ecotourism elements, which the park best qualifies (Table 38). Twenty-three respondents (41.1%) agreed that tourism provided by the park encouraged guests to be concerned about, and protective of the host community and environment. Nineteen respondents (33.9%) agreed with tourism administrated by the park and that it supported and sustained local ecosystems. Eighteen respondents (32.1%) believed that tourism provided by the park allowed guests to gain an understanding of the region. Yet, one respondent advanced the unique idea that the park was devoid of those elements.

Table 38

Visitors' perceptions of sustainable ecotourism elements the park best meets

Sustainable ecotourism element the park best meets	Number of respondents	Percent of respondents
Tourism which encourages guests to be concerned about, and protective of the host community and environment	23	41.1
Tourism which supports and sustains local ecosystems	19	33.9
Tourism which allows guests to gain an understanding of the region visited	18	32.1
Tourism which is concerned with the quality of experiences	15	26.8
Tourism which maintains the full range of recreational, educational, and cultural opportunities within and across generations	13	23.2
Tourism which has social equity and community involvement	12	21.4
Tourism which is based upon activities or designs which reflect the character of an area	10	17.9
Other	1	1.8

n=56

Note The respondents were expected to check only two preferences in this question. One selection was possible from each respondent.

After the trips to the park, the respondents revealed their experiences derived from the park's characteristics (Table 39). Forty-two respondents (75%) agreed that the park used guides native to the visited area. Twenty-six respondents (46.4%) verified that

the park actively managed the group size of visitors to the park. Fourteen respondents found that the park had the efficient management plans for lodging accommodation. Four respondents (7.1%) provided various concepts toward the park's characteristics, which included the helpful park staff, the indigenous tropical plants found in the park, and the park's rigid natural protection.

Table 39

Visitors' opinions of the best characteristics the park provided

Park's predominant features	Number of respondents	Percent of respondents
Using guides native to visited area	42	75.0
Group size of visitors to the park	26	46.4
Activities sensitivity to plants and animals	20	35.7
Management plans for lodging accommodation	14	25.0
Pack-it-out requirement	12	21.4
Waste disposal	10	17.9
Providing a pre-arrival information packet	5	8.9
Knowledgeable local guides	4	7.1
Other	4	7.1

n=56

Note The respondents were able to check any preferences in this question. Multiple selections were possible from each respondent.

Table 40 described the local guides' training and performance. Forty-three (76.8%) and 42 (75.0%) respondents found that the local guides were friendly and helpful respectively. Three respondents founded that local guides performed well in their local but academic field.

Table 40

Visitors' perceptions of the local guides' training and ability

Local guides' training and ability	Number of respondents	Percent of respondents
Friendly	43	76.8
Helpful	42	75.0
Knowledgeable about the plants and animals	28	50.0
Knowledgeable about the local culture	23	41.1
Knowledgeable about ecology and environment	16	28.6
Other	3	5.4

n=56

Note The respondents were able to check any preferences in this question. Multiple selections were possible from each respondent.

Table 41 showed visitors' modes of transportation from their places to the City of Nakhon Si Thammarat. Traveling by car to the city was selected by 25 respondents (44.6%). Eighteen respondents (32.1%) traveled to the city by bus. Twelve respondents (21.4%) selected item "Other". They described that they hired the van services and pick-up taxis to travel to the city.

Table 41

Visitors' travel modes to the City of Nakhon Si Thammarat

Modes of transportation	Number of respondents	Percent of respondents
Car	25	44.6
Bus	18	32.1
Other	12	21.4
Train	1	1.8
Total	56	100.00

n=56

Table 42 manifested the visitors' modes of transportation to the park. Thirty respondents (53.6%) traveled to the park by car. Twenty respondents (35.7%) chose item "Other". The respondents traveled to the park by the pick-up taxis, and by hiring the van services.

Table 42

Visitors' travel modes from the City of Nakhon Si Thammarat to the park

Modes of transportation	Number of respondents	Percent of respondents
Car	30	53.6
Other	20	35.7
Bus	6	10.7
Total	56	100.00

n=56

The visitors' average length of stay was portrayed in Table 43. Twenty-nine respondents (51.8%) spent three to five days during their park visit. Twenty-one respondents (37.5%) were in the park two days. Five respondents spent one day at the park.

Table 43

Visitors' average length of stay

Length of stay	Number of respondents	Percent of respondents
One day	5	8.9
Two days	21	37.5
Three to five days	29	51.8
Other	1	1.8
Total	56	100.00

n=56

Most visitors staying over in the park pitched camps (73.6%). Twelve respondents (22.6%) stayed in the cabins provide by the park. Five respondents selected item "Other".

The respondents stayed a night in the cabin and another night by setting up tents in the park.

Table 44

Visitors' accommodations in the park

Accommodation	Number of respondents	Percent of respondents
Camping, tents	39	69.64
Cabin	12	21.42
Other	5	8.92
Total	56	100.00

n=56

Most travel parties to the park were comprised more than three people in a group (60.7%). Sixteen respondents (28.6%) selected item “Other”, which described as the group of eight to 10 and 13-14 people.

Table 45

Visitors' number in travel party to the park

Number in travel party	Number of respondents	Percent of respondents
Only yourself	1	1.8
Two	2	3.6
Three	3	5.4
More than three people	34	60.7
Other	16	28.6
Total	56	100.00

n=56

Table 46 clarified how visitors got to know the park. Thirty-nine respondents (69.6%) knew about the park via friends. Twenty-five respondents (44.6%) were introduced to the park by travel magazines. Thirteen respondents (23.2%) knew the park by word of mouth. Nine respondents chose item “Other”; which they knew the park by watching the traveling documentary program on television, and by relatives.

Table 46How visitors learned about the park

Medium	Number of respondents	Percent of respondents
Friends	39	69.6
Travel magazines	25	44.6
Word of mouth	13	23.2
Other	9	16.1
Internet web site	4	7.1
Travel agent	0	0

n=56

Note The respondents were able to check any preferences in this question. Multiple selections were possible from each respondent.

From the result as shown in Table 47, there were 38 female and 18 male visitors traveling to the park. Therefore, the total visitor number was 56.

Table 47Visitors' gender

Gender	Number of respondents	Percent of respondents
Female	38	67.9
Male	18	32.1
Total	56	100.00

n=56

Table 48 classified the visitors' nationality. 55 respondents (98.2%) were Thai and only one (1.8%) was Canadian.

Table 48Visitors' nationality

Nationality	Number of respondents	Percent of respondents
Thai	55	98.2
Other	1	1.8
Total	56	100.00

n=56

Table 49 demonstrated where the visitors to park were from. Twenty-three respondents (41.1%) were the local people of Nakhon Si Thammarat Province. Nineteen respondents were identified as visitors from Bangkok. Seven respondents were visitors from the south. There was only one visitor from Canada.

Table 49

Visitors' place of origin

Place of origin	Number of respondents	Percent of respondents
Nakhon Si Thammarat	23	41.1
Bangkok	19	33.9
Southern Thailand	7	12.5
Central Thailand	3	5.4
Eastern Thailand	2	3.6
Canada	1	1.8
Northeastern Thailand	1	1.8
Total	56	100.00

n=56

Table 50 categorized the visitors' occupation. Twenty-seven visitors who were government services were the largest group. Seventeen respondents were employees. Five respondents were students. "Other" was an ecologist.

Table 50

Visitors' occupation

Visitors' occupation	Number of respondents	Percent of respondents
Government service	27	49.1
Employee	17	30.9
Student	5	9.1
Self-employed	4	7.3
Other	1	1.8
Unemployed	1	1.8
Total	55*	100.00

n=56

*Number varies due to non-respondents.

Visitors' average income was contained in Table 51. Sixteen respondents (29.6%) were visitors whose income is between US\$ 301-400 per month. Eleven respondents (20.4%) received between US\$ 201-300 per month. Eleven respondents (20.4%) earned more than US\$ 500 per month. There were only five respondents (9.3%) who received less than US\$ 100 per month.

Table 51

Visitors' average income

Visitors' income per month	Number of respondents	Percent of respondents
Less than US\$ 100	5	9.3
Between US\$101-200	3	5.6
Between US\$-201-300	11	20.4
Between US\$301-400	16	29.6
Between US\$401-500	8	14.8
More than US\$500	11	20.4
Total	54*	100.00

n=56

*Number varies due to non-respondents.

Visitors' age was depicted in Table 52 with the interval of 10 years. 23 visitors aging from 30 to 39 years old were the largest group. Twenty-one respondents were visitors aging from 20 to 29 years old. There was one respondent in the interval of 50 to 59 years old.

Table 52Visitors' age

Visitors' age	Number of respondents	Percent of respondents
10-19	3	5.5
20-29	21	38.2
30-39	23	41.8
40-49	7	12.7
50-59	1	1.8
Total	55*	100.00

n=56

*Number varies due to non-respondents.

Visitors to the park were requested to provide their ideas whether they would return to the park. Forty-four respondents (81.5%) would travel back to the park again whereas 10 respondents (18.5%) would not to do so.

Table 53Visitors' plans to visit the park again

Visitors' plan to visit the park again	Number of respondents	Percent of respondents
Yes	44	81.5
No	10	18.5
Total	54*	100.00

n=56

*Number varies due to non-respondents.

Table 54 clearly demonstrated the visitors' level of satisfactions perceived from the trips to the Khao Luang National Park. Thirty-seven respondents (67.3%) stated that their trips were very satisfactory. Nine respondents (16.4%) were satisfied with the trips. Eight respondents (14.5%) felt neutral about the trip.

Table 54Visitors' satisfaction with their visits to the Khao Luang National Park

Visitors' satisfaction	Number of respondents	Percent of respondents
Very satisfied	37	67.3
Satisfied	9	16.4
Neutral	8	14.5
Partially satisfied	1	1.8
Total	55*	100.00

n=56

*Number varies due to non-respondents.

The Interviews with experts in Biology and Ecology

(Appendix C and D)

The interview survey of the experts in Biology and Ecology, which determined whether sustainable ecotourism contributes environmental conservation to the Village of Khiriwong and the Khao Luang National Park, at Karom Unit, were demonstrated in the following subjects:

1. the appropriate mode of transportation required to travel to the Village of Khiriwong;
2. the Village of Khiriwong's suitable waste disposal management;
3. the recommended design, architectural style and facilities for the Village of Khiriwong;
4. the Village of Khiriwong's means to distribute tourism information about the desired behavior to visitors;
5. the impacts of village tourism on ecosystems;
6. agreement with the tourism activities provided by the Village of Khiriwong;
7. perception of ideal trips to the village; and
8. experts' gender.

Tourism in the Village of Khiriwong

From the interview, the results in Table 55 show the ideal mode of transportation to the park. The experts advised that an off-road and four-wheel car should be used for traveling to the village. The road was built with cement and the condition was pretty standard. Furthermore, the transportation in the village was not too congested. The experts reasoned that those vehicles would not generate a good deal of pollution to the village and surroundings. Motorbikes were not recommended to use in the village because of their annoying noises. Yet, if necessary, controlling motorbike's speed should be a priority. Two experts supported the idea that walking to the village was a favorable way to the village, but it was distant (eight kilometers) from the main road to the village.

Table 55

Experts' recommended travel modes to the Village of Khiriwong

Recommended modes of transportation to the park	Number of respondents
Off-road	3
Four-wheel	3
Walk	2

n=3

Note The respondents were able to check any subjects in this question. Multiple selections were possible from each respondent.

The researcher prepared an open-ended question concerning the carrying capacity of visitors for the Village of Khiriwong. The experts were asked to provide their ideas of the suitable carrying capacity the village can support in tourists per day. Experts no.1 and no.2 stated that the proper number should be between 20-30 visitors per day. Meanwhile, expert no.3 found that the village could support 100 visitors per day. All experts reasoned

that the village tourism was for short visits and the monsoon periods would also limit the number of tourists.

Table 56 demonstrated the ideal waste disposal management system for the village. All the experts agreed that a local municipal garbage system should be provided by the village. One respondent also suggested a municipal recycling system. This system would help decrease the quantity of waste. The usables or recycled such as paper, glass bottles, metallic materials, etc. could be reprocessed.

Table 56

Experts' recommendations for waste disposal management by the village

Ideal waste disposal management	Number of respondents
Municipal garbage system	3
Ship back to the City of Nakhon Si Thammarat	0
Bury on property	0
Municipal recycle garbage system	1
Free disposal	0
Burn	0
Compost	0
Pit	0
Other	0

n=3

Note The respondents were able to check any subjects in this question. Multiple selections were possible from each respondent.

The experts recommended two types of accommodation. They were villagers' homes and the cottage. The villagers' houses were the best accommodation for visitors. The cottage was also selected as an alternative if guests preferred privacy.

Table 57

Experts' recommended accommodations the village should provide for visitors

Preferred accommodations	Number of respondents
Home	2
Cottage	1
Camping	0
Resort	0
Hotel, motel	0
Caravan	0
Farmhouse	0
Cabin	0
Other	0

n=3

Table 58 showed the experts' recommended modes of tourist information for the visitors' actions while visiting the village. Desired behavior should be clearly explained and employed with adages rather than warnings. Information provided on the spot or before touring should be in the orientation. The experts reasoned that, at times, orientation could help better understanding of the village's rules and regulations. A punishment for not obeying the village's rules was also advised. For any other useful information for the visitors, the experts presented the idea that signs explaining native plants' names and uses should be installed, so that the visitors could observe and learn. The village's tourism leaflets or manuals were other means to give the visitors, so that they could learn before touring.

Table 58

Experts' recommended modes of tourist information for desired behavior
while visiting the village

Modes of tourist information	Number of respondents
Post desired behavior	3
On spot or before touring	2
Brochures	1
Internet web site	1
Travel magazines	1
Other	1

n=3

Note The respondents were able to check any subjects in this question. Multiple selections were possible from each respondent.

The experts presented their perceptions of environmental impacts observed from tourism activities in the village in Table 59. Wildlife disturbance, pollution caused by vehicles and wastes were prone to take place during the visit. They believed that tourists to the village would probably take home the native wild plants from the villagers' fruit gardens, which were grown together with the forests. One expert added that certain kinds of wild orchids were now scarcely seen because of the trading between visitors and tourists or free gifts for visitors after the tours ended. The experts found that vehicles like tourist buses, etc. could generate smoke and exhaust fumes. Wastes and refuse such as plastic bags, beverage cans and bottles, were brought to the village by tourism. Detrimental use of the natural trails would also occur when the tourists bush walk or observe gardens.

Table 59

Experts' perception of environmental impacts of tourism activities in the village

Environmental impacts	Number of respondents
Wildlife disturbance	2
Pollution caused by vehicles	2
Wastes	2
Walking off the natural trails	1
Other	0
Noise	0

n=3

Note The respondents were able to check any subjects in this question. Multiple selections were possible from each respondent.

In Table 60, one expert reasoned that the local residents, however, needed to understand their own environment and wildlife in the village, as much as possible. Another expert thought that the villagers needed to comprehend the village tourism principles. Any tourism investment from the outsiders should include discussion and understanding with other stakeholders. More specifically, village tourism should provide equality of benefits and participation by the whole host community, if practical. One expert agreed with the village tourism values, and thought the host community should have management plans and control the impacts generated by tourism. In conclusion, the researcher discovered that all three experts in Biology and Ecology, unanimously, accepted the tourism in the Village of Khiriwong. With some exceptions, the villagers needed to understand their environmental background, wildlife, etc. and comprehend the village tourism's principles. All tourism management and, expressly environmental conservation in the village, should be reciprocally monitored and operated by the villagers themselves.

Table 60Experts' agreement with tourism provided by the village

Agreement with the village tourism	Number of respondents
Yes	3
No	0
Total	3

n=3

Table 61 depicted the experts' perception of ideal trips to the village. All considered that the village tourism should cause no harm to the village and the surroundings, or disturbance to the village's way of life and the same time, visitors can learn and respect the village's mores.

Table 61Experts' perception of ideal trips to the Village of Khiriwong

Ideal trips to the village	Number of respondents
Tourism that causes no harm to the village and the surroundings	3
Tourism that causes no disturbance to the village's way of life	3
Tourism so visitors can learn to value the village's way of life	3
Other	0

n=3

Note The respondents were able to check any subjects in this question. Multiple selections were possible from each respondent.

To acquire the primary information, the author interviewed one female and two male experts who were working as professors at a public college in the City of Na Khon Si Thammarat.

Table 62Experts' gender

Experts' gender	Number of respondents
Male	2
Female	1
Total	3

n=3

Tourism in the Khao Luang National Park, at Karom Unit

The interview survey of the experts in Biology and Ecology, which determined whether sustainable ecotourism contributes environmental conservation to the Village of Khiriwong and the Khao Luang National Park, at Karom Unit, was demonstrated in the following subjects:

1. the appropriate mode of transportation required to travel to the park;
2. the park's suitable waste disposal management;
3. the recommended design, architectural style and facilities for the park;
4. the park's means to distribute tourism information about the desired behavior to visitors;
5. the impact of park tourism on the ecosystems;
6. agreement with the tourism activities provided by the park;
7. perception of ideal trips to the park; and
8. experts' gender.

Table 63 portrayed the experts' recommended travel modes to the park. Walking was the most advised. They reasoned that walking was the most appropriate means to explore the outdoor recreation zone and the primitive zone in the national park and it was not detrimental to wildlife. Four-wheel and off-road vehicles might be used within the park's service zone.

Table 63Experts' perceptions of travel modes recommended to the park

Travel modes recommended	Number of respondents
Walk	3
Four-wheel	2
Off-road	1
Other	1

n=3

Note The respondents were able to check any subjects in this question. Multiple selections were possible from each respondent.

The researcher prepared an open-ended question relating to the visitor carrying capacity for the park. From the interview survey, expert no.1 found that the appropriate number of visitors to the Khao Luang National Park at Karom Unit should be around 3,000-4,000 per month. Expert no.2 considered the park could support 3,000 visitors per month. However, expert no.3 was not sure about the number of visitors that should be allowed within a year at the park.

Regarding the waste disposal management recommended by the experts in Table 64, two experts considered categorizing wastes before eradication. Park should sort the kinds of wastes. The decomposable should be left or buried in the park area for self-decay and become natural manure, but non-degradable like plastic containers, styrofoam food containers, cans, etc. should be returned to the city for eradication or recycling.

Table 64

Experts' recommendations for waste disposal management by the park

Waste disposal management	Number of respondents
Other	2
Ship back to the City of Nakhon Si Thammarat	1
Compost	1
Free disposal	1
Municipal recycle garbage system	1
Burn	0
Bury on property	0
Municipal garbage system	0
Pit	0

n=3

Note The respondents were able to check any subjects in this question. Multiple selections were possible from each respondent.

The experts selected the most suitable accommodation patterns of camping, tents and cabins provided by the park (Table 65). Setting up tents should be limited in the campground area and expressly prohibited at the Khao Luang peak. The experts believed that camping, tents and cabins were the least inimical to the surroundings and wildlife.

Table 65

Experts' suggested accommodations the park should provide for visitors

Accommodation patterns	Number of respondents
Camping, tents	3
Cabins	2
Home	0
Resort	0
Hotel, motel	0
Caravan	0
Cottage	0
Farmhouse	0
Other	0

n=3

Note The respondents were able to check any subjects in this question. Multiple selections were possible from each respondent.

In Table 66, the experts believed that the best means to provide information to visitors is posting desired behavior and informing visitors on the spot or before touring. Permanent signs were recommended. Park staff, local guides and porters were also instrumental in promoting conservation, as well. Brochures or manuals describing “do’s & don’ts” were advised, so that visitors could learn and follow the park rules.

Table 66

Experts’ recommended modes of tourist information for desired behavior
while visiting the park

Modes of tourist information	Number of respondents
Post desired behavior	2
On spot or before touring	2
Brochures	2
Other	0
Internet web site	0
Travel magazines	0

n=3

Note The respondents were able to check any subjects in this question. Multiple selections were possible from each respondent.

From the experts’ perception of environmental effects caused by the tourism activities in the park, some wildlife disturbance was prone to unavoidably occur (Table 67). Wastes, noise, walking off the natural trails, pollution from vehicles were mentioned as environmental impacts created by tourism. One expert added that the impact of pesticides, herbicides or fertilizers used by the villagers in the park area should not be overlooked by the park.

Table 67

Experts' perceptions of environmental impacts of tourism activities in the park

Environmental impacts	Number of respondents
Wildlife disturbance	3
Wastes	2
Noise	1
Walking off the natural trails	1
Pollution caused by the vehicles	1
Pesticides, herbicides, fertilizers	1
Other	0

n=3

Note. The respondents were able to check any subjects in this question. Multiple selections were possible from each respondent.

All the experts agreed that park tourism should be operated by the park and the village (Table 68). They believed, however, that the park tourism management should be collaboration by both the park and the Village of Khiriwong. One expert found that management plans were important and should be followed by both the host community leaders and the local residents. More principles were also required, so that the local residents could realize and exercise ecotourism in an appropriate way. One expert mentioned that the park itself should form more efficient park tourism and prepare itself for tourism. The park would be no longer the place for relaxation only. The park should be sources of knowledge, entertainment and a natural library for public use under rigid administration. Also, the park should be the place where local residents could be involved in the sharing of tourism benefits.

Table 68Experts' agreement with tourism provided by the park

Agreement with the park tourism	Number of respondents
Yes	3
No	0
Total	3

n=3

The ideal trips to the park were clarified in Table 69. All experts agreed that proper tourism should cause no harm to nature and the ecosystems, tourism so visitors can learn the values of ecosystems and cause no harm to wildlife. One expert believed that visitors should be limited to taking pictures and observing the scenery. Another expert added the park needed guides who were knowledgeable about wildlife and the environment.

Table 69Experts' perceptions of ideal trips to the Khao Luang National Park

Ideal trips to the park	Number of respondents
Tourism that causes no harm to nature and the ecosystems	3
Tourism so visitors can learn the values of the ecosystems and environment	3
Tourism that causes no harm to wildlife	3
Other	0

n=3

Note The respondents were able to check any subjects in this question. Multiple selections were possible from each respondent.

The author interviewed one female and two male experts who were working as professors in Biology and Ecology at a public college in the City of Nakhon Si Thammarat.

Table 70Experts' gender

Experts' gender	Number of respondents
Male	2
Female	1
Total	3

n=3

The Interviews with the Khao Luang National Park staff

(Appendix E)

The interview survey of the Khao Luang National Park staff determined whether sustainable ecotourism contributes to the environmental conservation. The following subjects were of interest to the researcher.

1. Regular modes of transportation and equipment required to travel to the park
2. The maximum number of visitors the park should accommodate each month
3. Waste disposal management
4. Accommodation designs, architectural style and facilities
5. Tourist information distribution about the park and protected areas to visitors in terms of environmental conservation
6. Environmental impact of tourism activities on ecosystems
7. Agreement with tourism as a means to protect the park
8. Collaborative relationship between the Khao Luang National Park and the Village of Khiriwong
9. Ideal trips to the protected areas
10. Suggestions for improving the experiences of park visitors
11. Suggestions for mitigating the impact of park visitors on the ecosystems
12. Park's staff average income
13. Gender of park staff

The park staff explained that walking was the usual traveling mode to explore the park beyond the intensive use zone (Table 71). The road to the park office was permanently built with cement. Pick-up car and pick-up taxis were normally used to travel from the city or any other place to get to the park. Travel by tourist buses or coaches was limited to only the park's parking lot. However, the parking lot could support up to 45 cars. In addition, motorbikes were often used by visitors.

Table 71

Regular modes of transportation to the park

Regular modes of transportation	Number of respondents
Walk	4
Pick-up car	4
Other	0
Four-wheel car	0
Off-road car	0

n=5

Note The respondents were able to check any subjects in this question. Multiple selections were possible from each respondent.

The visitor carrying capacity at the Khao Luang National Park, at Karom Unit

The researcher also prepared an open-ended question regarding the appropriate visitor carrying capacity at the Khao Luang National Park, at Karom Unit. Park staff no.1 proposed that the park could support between 4,000-5,000 visitors per month. Park staff no.2 found that the number of visitors to the park should be 1,500 per month. Park staff no.3 agreed with the visitor number of 3,000. Park staff no.4 considered the proper visitor number of 6,000. Meanwhile, the visitor number proposed by park staff no.5 was similar to the park staff no. 3.

The park staff explained that a long time ago park wastes were collected and buried on the property. Currently, the park collects garbage and ships it all to the municipal garbage program in the City of Nakhon Si Thammarat. The park's personnel are responsible for sorting before shipping to the city.

Table 72

Waste disposal management in the park

Waste disposal management	Number of respondents
Ship back to the City of Nakhon Si Thammarat	4
Municipal garbage system	2
Municipal recycle system	1
Bury on property	0
Free disposal	0
Burn	0
Compost	0
Pit	0
Other	0

n=5

Note The respondents were able to check any subjects in this question. Multiple selections were possible from each respondent.

Accommodation designs, architectural style and facility in the park

Regarding any construction in the park, the Forestry Department and its consultant companies in Bangkok are accountable for accommodation designs, architectural style and facilities. Any building construction will be carefully examined to prove that it will generate little damage to nature and surroundings. Materials also are rigorously selected to be compatible with the weather and local cultural needs. The construction plans, however, are standard to all national park units nationwide.

Table 73 displays how the park distributed tourist information and the park's rules to visitors. The park had but five ways to do so. Brochure, signs, posting desired behavior and tourist orientation were commonly administrated in the park. The park also published the regulations of the park visit in the travel magazines. Additionally, the park staff explained that currently, the park has a project to publicize tourist information in the form of exhibitions in seven primary schools per month. The park staff will instruct grade school students two hours every Thursday and Friday. This project will be evaluated every month, so that the park staff are able to consider whether or not it can be an instrument in the environmental protection of the park.

Table 73

Means to provide information about the park and the protected areas to visitors

Means to provide information	Number of respondents
Brochures	5
Post desired behavior	5
On spot or before touring	5
Travel magazines	4
Other	1
Internet web site	0

n=3

Note The respondents were able to check any subjects in this question. Multiple selections were possible from each respondent.

The park staff concluded that wildlife disturbance, walking off the natural trails and wastes were selected as the inevitable impacts caused by activities in the park (Table 74). Waste, noise, vehicle pollution were brought to the park by tourists. Nevertheless,

chemicals like pesticides, herbicides and fertilizers were found in the villagers' agricultural areas in the park.

Table 74

Park staff's perceptions of environmental impacts of activities caused by visitors to the park

Environmental impacts	Number of respondents
Wildlife disturbance	4
Walking off the natural trails	4
Wastes	4
Noise	3
Pollution caused by the vehicles	3
Pesticides, herbicides, fertilizers	3
Other	0

n=3

Note The respondents were able to check any subjects this question. Multiple selections were possible from each respondent.

From the interview survey (Table 75), it was discovered that all park staff had mutual agreement with the park tourism. Park tourism was an efficient instrument for environmental conservation so tourists could understand the park's significance as a place for knowledge of nature. Visitors could learn about the unknown and unseen wildlife and appreciate its values. Yet, every activity in the park should be strictly controlled by the park staff.

Table 75Park staff's agreement with park tourism

Agreement with park tourism	Number of respondents
Yes	5
No	0
Total	5

n=5

The park personnel were asked if the park had any collaborative relationship with the Village of Khiriwong. All park staff agreed that there was a superficial connection between the park and the village. Their mutual task was a tourist operation. The village was required to report the number of visitors at any time, if there were visitors traveling to the park and the Khao Luang peak.

Table 76Park staff's collaborative relationship with the Village of Khiriwong

Relationship with the Village of Khiriwong	Number of respondents
Yes	5
No	0
Total	5

n=5

Table 77 showed five park staff average incomes. Their income varies with seniority and position. The researcher interviewed two park rangers, two park chief assistants and one park chief.

Table 77

Park staff's average incomes

Park staff incomes per month	Number of respondents
Between US\$201-300	2
Between US\$301-400	1
Between US\$401-500	1
More than US\$501	1
Total	5

n=5

The interviewees were all male (Table 78).

Table 78

Park staff's gender

Park staff gender	Number of respondents
Male	5
Female	0
Total	5

n=5

Ideal trips to the Khao Luang National Park

The park staff was asked an open-ended question to provide data about ideal trips to the park. Two park staff stated that the preferred visitors were the persons who obeyed the park's rules. Two park staff proposed that the most beneficial trips to the park were the trips that distributed knowledge concerning environmental preservation to the visitors. One park staff mentioned that the best trips to the park were the trips that

generated the least environmental impacts on ecosystems. One park staff agreed that the desirable trips to the park were types of ecotourism, which focused on environmental conservation.

Furthermore, there was another open-ended question to ask the park staff. How to enhance more rewarding experiences of the visitors. Three park staff would like to develop an information center with auditorium, which provides park exhibitions to visitors. In addition, the park should prepare and provide more guides who are knowledgeable and fluent in foreign languages. A safety alarm-warning signal should be installed to alert visitors about any torrential rapids caused by rains and downpours in the park. One park staff would like to have more clean lavatories for the visitors. More cabins built and landscaped to the environment should be considered. One park staff would like visitors to experience more about the park and stay longer so that they could learn and appreciate the values of the national park. Final open-ended questions relating to how to mitigate the environmental impact on ecosystems caused by the visitors to the park were asked of the park staff. One park staff thought that the park should increase the patrol services to control and confine the tourism area for visitors. Rigid inspections of tourists were required to prevent illegal poaching. One park staff mentioned more about the carrying capacity in the park and the confinement of certain protected areas. For example, the park would allow visitors to travel to only the determined points and the visitors could not travel beyond. One park staff agreed the wastes and noises were sometimes inevitable and uncontrollable. The park should pay more attention to that by warnings to the visitors. Removing wild plants, pebbles or rocks should be prevented. Any infringement should be enforced with severe punishment. It would, however, be

preferred that the visitors visit the park office for information about park rules and regulations before touring. One park staff yielded an idea of a more effective waste management system the park should develop. Garbage and wastes were normally seen along the park attractions like waterfalls, bushes, and walking trails. He added that park personnel had to persistently provide information about how to behave in the park.

The interviews with the local residents in the Village of Khiriwong

(Appendix F)

The interview survey of the residents in the Village of Khiriwong determined whether sustainable ecotourism would bring economic benefits to the receiving community without also causing cultural disruption and was demonstrated in the following subjects:

1. tourism impacts in terms of
 - 1.1 ecology and environment
 - 1.2 economy
 - 1.3 politics
 - 1.4 social life
2. tourism employment;
3. economic benefits from tourism that support the village's living and services;
4. the local residents' involvement in tourism activities;
5. natural resource consumption to support the village tourism;
6. attitude toward the sustainable ecotourism;
7. the local residents' needs for improving sustainable ecotourism;
8. changes in the way of life after the arrival of tourism;
9. current tourism impacts;
10. collaborative relationship between the Khao Luang National Park and the Village of Khiriwong;
11. plans and operations favorable to developing the environment and ecosystems in the village; and
12. income and gender.

The researcher interviewed 20 local residents with tourism involvement and another 20 villagers who had no tourism involvement about the ecological impacts. From the results shown in Table 79, 11 of 20 villagers with tourism involvement and 14 of 20 villagers without tourism involvement stated that ecological issues appeared after the arrival of tourism. Littering of trash and garbage along the roadsides, streams, and waterfalls were the major ecological problems in the village. Walking off the trails also was detrimental to the native wild plants.

Table 79

Local residents' perception of ecological aspect

Local residents	Ecological aspect		Number of respondents
	yes	no	
With tourism involvement	11	9	20
Without tourism involvement	14	6	20
Total	25	15	40

n=40

Regarding the economic aspect (Table 80), 18 of 20 villagers with tourism involvement and 10 of 20 villagers without tourism involvement agreed that the economic issue emerged after the arrival of tourism. They reasoned that tourism created income and better economy to the village but the benefits were limited to only the participants in tourism.

Table 80Local residents' perception of economic aspect

Local residents	Economic aspect		Number of respondents
	yes	no	
With tourism involvement	18	2	20
Without tourism involvement	10	10	20
Total	28	12	40

n=40

Related to the political issue (Table 81), four of 20 local residents with tourism involvement and five out of 20 local residents without tourism involvement mentioned that the political aspect appeared after the emerging of tourism. The village administrators significantly took part in the village tourism with the community and village leaders. At times, certain controversial issues ensued from the village tourism policies and affected the village's unity and comprehension.

Table 81Local resident's perception of political aspect

Local residents	Political aspect		Number of respondents
	yes	no	
With tourism involvement	4	16	20
Without tourism involvement	5	15	20
Total	9	31	40

n=40

Concerning the social issue in Table 82, 11 of 20 villagers with tourism participation, and 11 of 20 local residents without tourism participation replied that social issues appeared after the coming of tourism. The number of village youth who were addicted to drugs like Ecstasy and amphetamines, was undeniably increasing. Drugs were mostly brought to the village by drug users, who traveled to the village as tourists.

Table 82

Local residents' perception of social aspect

Local residents	Social aspect		Number of respondents
	yes	no	
With tourism involvement	11	9	20
Without tourism involvement	11	9	20
Total	22	18	40

n=40

Note From table 79-82. The interviewees were able to check any subjects in this question. Multiple selections were possible from each interviewee.

As the survey about tourism employment in Table 83 shows, the respondents reported that there was no increase in tourism employment from outside increasing and no outsiders traveled to work in the village with the arrival of village tourism. They reasoned that their family members could share and help do house work for daily life. Even during the tourist season, they did not need to hire anyone for help. However, there was some hiring among the villagers for particular jobs.

Table 83

Local residents' perception of employment caused by tourism

Local residents	No impact on local employment has happened after the advent of tourism	Number of respondents
	yes	
With tourism involvement	20	20
Without tourism involvement	20	20
Total	40	40

n=40

From the interview outcome shown in Table 84, 16 of 20 residents with tourism participation agreed that they could receive benefits from tourism. Likewise, 17 out of 20 villagers without tourism participation could gain advantages from tourism. Forty local residents were asked if tourism brought about any service and living improvement. Thirty-three villagers with/without tourism involvement understood that the benefits were in the form of cash distributed 5-10% from the total revenue of the career groups such as the Fabric Group, Dessert Group, etc. This amount of money was portioned according to what the village needed. The village usually used this money for the village's festivals and entertainment during the Songkran Day (the Thai's original New Year or the Water Festival), the Elderly's Day, the Children's Day and the village Sport Day. Moreover, the village distributed the rest of the money for restoring and extending the roads to the villagers' gardens without any assistance from the city or the government.

Table 84

Local residents' perception of tourism benefits to the community

Local residents	Benefits from tourism that support local community		Number of respondents
	yes	no	
With tourism involvement	16	4	20
Without tourism involvement	17	3	20
Total	33	7	40

n=40

From the interview survey, Table 85 demonstrated the local residents' occupations. Sixteen out of 20 villagers with tourism involvement supplied goods and service. Eleven of them were providing home-stay. Five residents were porters and tourist assistants. Seven of 20 villagers without tourism involvement took part in providing goods and services as grocers, food sellers, and pick-up taxi drivers.

Table 85

Local residents' occupation classification

Local residents	Supply of goods and services		Number of respondents
	yes	no	
With tourism involvement	16	4	20
Without tourism involvement	7	13	20
Total	23	17	40

n=40

There were three of 20 villagers with tourism involvement taking part in the direct sale of handicrafts to visitors (Table 86). Three villagers without tourism involvement participated in selling handicrafts to the markets in town.

Table 86

Local residents' occupation classification

Local residents	Sale of handicrafts		Number of respondents
	yes	no	
With tourism involvement	3	17	20
Without tourism involvement	3	17	20
Total	6	34	40

n=40

Table 87 described the local residents who were involved with traditional entertainment and activity. Two of 20 villagers with tourism involvement were on the village tourism staff. Seven of 20 villagers without tourism involvement were two village guest receptionists, one transportation provider and four community leaders.

Table 87

Local residents' occupation classification

Local residents	Traditional entertainment and activity		Number of respondents
	yes	no	
With tourism involvement	2	18	20
Without tourism involvement	7	13	20
Total	9	31	40

n=40

The local residents also identified their additional occupations (Table 88), which were not only as suppliers of goods and services, sellers of handicrafts, but also participants in traditional entertainment and activity. All 20 local residents with tourism involvement were gardeners. Meanwhile, 14 of 20 local villagers without tourism involvement were gardeners, as well, and, six residents were working as a postman, a health care staff, a coffee house owner, two primary school teachers and a community administrator.

Table 88

Local residents' occupation classification

Local residents	Other		Number of respondents
	yes	no	
With tourism involvement	20	0	20
Without tourism involvement	14	6	20
Total	34	6	40

n=40

Note From table 85-88, the interviewees were able to check any subjects in this question. Multiple selections were possible from each interviewee.

There were eight of 20 villagers with tourism involvement supporting water use and conservation (Table 89). They learned a costly lesson after some villagers used chemicals to catch fish in the natural streams. They found that when they used stream water to culture fish in their habitats, all the fish perished. From this, the village established the rule that no one can use any chemicals to catch fish whatsoever in the streams. Sixteen out of 20 villagers without tourism involvement also obey this rule.

Table 89Local residents' perception of utilizing natural resources to support the village tourism

Local residents	Water use and conservation		Number of respondents
	yes	no	
With tourism involvement	8	12	20
Without tourism involvement	16	4	20
Total	24	16	40

n=40

Regarding the energy consumption in Table 90, from the survey interview, two out of 20 villagers with tourism involvement stated that they used the wood from their gardens for firewood rather than cutting down the trees. Thirty-eight out of 40 of villagers both with/without tourism involvement did not mention the energy consumption.

Table 90Local residents' perception of utilizing natural resources to support the village tourism

Local residents	Energy		Number of respondents
	yes	no	
With tourism involvement	2	18	20
Without tourism involvement	0	20	20
Total	2	38	40

n=40

In Table 91, utilizing natural resources by recycling was selected by one of 40 villagers with/without tourism involvement.

Table 91

Local residents' perception of utilizing natural resources to support the village tourism

Local residents	Recycling		Number of respondents
	yes	no	
With tourism involvement	0	20	20
Without tourism involvement	1	19	20
Total	1	39	40

n=40

In Table 92, thirty-three of 40 villagers with/without tourism involvement mentioned that they knew how to utilize natural resources to support the village tourism. From the interviews, the villagers could cut down trees for building houses, but not for trading. This was lawfully allowed by the park, if the trees were in their garden areas. They reasoned they had an unforgettable experience from the mortal deluge and landslides in 1998. Consequently, forests and trees must be protected. No chemicals like pesticides, herbicides were used in the village and the garden area anymore.

Table 92Local residents' perception of utilizing natural resources to support the village tourism

Local residents	Other		Number of respondents
	yes	no	
With tourism involvement	16	4	20
Without tourism involvement	17	3	20
Total	33	7	40

n=40

Note From table 78-81, the interviewees were able to check any subjects in this question. Multiple selections were possible from each interviewee.

All the villagers with/without tourism involvement wholeheartedly accepted that tourism was an instrument to link their village with the outside world (Table 93).

Table 93Local residents' agreement with the village tourism

Local residents	Agreement with the village tourism	Number of respondents
	yes	
With tourism involvement	20	20
Without tourism involvement	20	20
Total	40	40

n=40

Five villagers with/without tourism involvement still would like to possess more access to goods and services. According to the survey, they reasoned that the village was

located about 20 kilometers from the city. That resulted in a commute to the city when they needed anything. Accordingly, they would like to have more goods and services established in the village.

Table 94

Local residents' perception of needs to support the village tourism

Local residents	Access to goods and services		Number of respondents
	yes	no	
With tourism involvement	2	18	20
Without tourism involvement	3	17	20
Total	5	35	40

n=40

In Table 95, twenty-four of 40 villagers with/without tourism involvement desired to have quality and standard access to health care. Actually, they had one public health clinic in the village with one patient bed. There were one clinic staff and one assistant for a 24 hour-service. The services were limited to the medical treatment. However, first aid kits were available. The villagers found that just one health clinic in the village was not adequate for them. So, they would like to have a standard physician and nurse available at least one day per week.

Table 95

Local residents' perception of needs to support the village tourism

Local residents	Quality access to health care		Number of respondents
	yes	no	
With tourism involvement	11	9	20
Without tourism involvement	13	7	20
Total	24	16	40

n=40

In reality, there was only one grade school with junior high level in the Village of Khiriwong. After graduating from the junior high level, students had to continue their education in the city or other places far away from their homes. Thirty-one of 40 villages with/without tourism involvement realized that higher education like community college was required in the village so that their children need not travel far for schools in the city or anywhere else. The villagers added that they would not feel concerned about their children's transportation back and forth from the village to schools and from schools to the village everyday and significantly, the villagers could keep their eyes on their children if they were jeopardized by drugs and unwanted culture from outside. Moreover, community colleges or schools could be places the villagers themselves could learn more after work.

Table 96Local residents' perception of needs to support the village tourism

Local residents	Education		Number of respondents
	yes	no	
With tourism involvement	15	5	20
Without tourism involvement	16	4	20
Total	31	9	40

n=40

Twenty-eight of 40 villagers with/without tourism involvement considered the communication infrastructure important to better their lives. They defined “communication infrastructure” as “telephone services,” rather than postal service. From the survey, there were four public telephones, which the villagers could call domestic and nationwide. Yet, the demand was greater than the supply. They reasoned that telephones were their convenient bridges to link the village and the societies outside within a short time and less costs.

Table 97Local residents' perception of needs to support the village tourism

Local residents	Communication infrastructure		Number of respondents
	yes	no	
With tourism involvement	14	6	20
Without tourism involvement	14	6	20
Total	28	12	40

n=40

Years ago, the best way to get to the village was by tractors but in the rainy season, walking through eight kilometers or five miles was the best mode of transportation in the village. During the survey, the researcher discovered that there was one way to get to the village from the main road. Eighteen of 40 with/without tourism involvement replied that quality roads were needed in the village for their fruit product transportation and for their transportation. It was found that the road that the villagers were using was sponsored by the Tourism Authority of Thailand to promote the village tourism. The road condition was fine, but partly bumpy.

Table 98

Local residents' perception of needs to support the village tourism

Local residents	Transportation infrastructure		Number of respondents
	yes	no	
With tourism involvement	9	11	20
Without tourism involvement	9	11	20
Total	18	22	40

n=40

Six of 40 villagers with/without tourism involvement stated that they would like to have a community product center established in the village. This community product center would be a place similar to the main village grocery store where they could sell their works and purchase their needs.

Table 99Local residents' perception of needs to support the village tourism

Local residents	Other		Number of respondents
	yes	no	
With tourism involvement	4	16	20
Without tourism involvement	2	18	20
Total	6	34	40

n=40

Note From Table 94-99, the interviewees were able to check any subjects in this question. Multiple selections were possible from each interviewee.

In Table 100, 13 of 40 villagers with/without tourism involvement founded that they could support their children to go to school by the income from selling their local goods or providing home-stay for visitors. Five villagers without tourism participation earned income by selling their products to the villagers with tourism involvement. Therefore, the income also could afford the tuition and fees for their children.

Table 100Local residents' perception of changes derived from the village tourism

Local residents	Gaining better education		Number of respondents
	yes	no	
With tourism involvement	8	12	20
Without tourism involvement	5	15	20
Total	13	27	40

n=40

Eighteen out of 40 villagers with/without tourism involvement discovered that after the arrival of tourism, they had access to more public utilities. Two main roads in the village were funded and constructed by the Tourism Authority of Thailand for the village tourism promotion. These villagers stated that they had higher living standards from using the roads, even though they were for tourism.

Table 101

Local residents' perception of changes derived from the village tourism

Local residents	Gaining better living		Number of respondents
	yes	no	
With tourism involvement	10	10	20
Without tourism involvement	8	12	20
Total	18	22	40

n=40

In Table 102, twenty-five of 40 villagers with/without tourism involvement gained more income after the village tourism was established. They stated that tourism generated income was not the primary revenue for their families, but a secondary source of money. Moreover, they could subsist regardless of their revenue from tourism.

Table 102

Local residents' perception of changes derived from the village tourism

Local residents	Gaining more income		Number of respondents
	yes	no	
With tourism involvement	15	5	20
Without tourism involvement	10	10	20
Total	25	15	40

n=40

Thirteen of 40 villagers with/without tourism involvement added their own opinions toward village tourism. Two villagers with tourism involvement found that tourism related works were their second jobs, if their products were not plentiful in a certain year. Eight villagers with/without tourism involvement discovered their guests to the village were new friends at the same time. So, the villagers could exchange and share attitudes, life, etc. with one another. The villagers stated that friends unveiled the new and unknown corners of the earth. Two villagers with/without tourism participation realized that after the advent of tourism in the village, they needed to take care of their surroundings and keep their homes clean and inviting. Nevertheless, there was only one villager without tourism involvement, who stated that tourism had no impact on his life.

Table 103

Local residents' perception of changes derived from the village tourism

Local residents	Other		Number of respondents
	yes	no	
With tourism involvement	5	15	20
Without tourism involvement	8	12	20
Total	13	27	40

n=40

Note From Table 100-103, the interviewees were able to check any subjects in this question. Multiple selections were possible from each interviewee.

There were four villagers with/without tourism involvement who found that the village tourism generated cultural changes in the village. From the interview, the villagers mentioned that currently, the urban culture and the tourists easily influenced their new generations. Typical and traditional dresses were seldom seen in the village, only in the village festivals.

Table 104

Local residents' perception of adverse impacts caused by the village tourism

Local residents	Local culture has been altered		Number of respondents
	yes	no	
With tourism involvement	2	18	20
Without tourism involvement	2	18	20
Total	4	36	40

n=40

In Table 105, 10 out of 30 villagers with/without tourism involvement ascertained that their lifestyle has been altered after the emergence of tourism. They reasoned that the village tourism annoyed their routine life. Tourist buses, coaches and other vehicles parked unsystematically. When visitors walked along the way to see the villagers' agro-forests, at the same time the villagers were conveying their agricultural products, the villagers had to be more vigilant in spotting tourists. It was reported that tourism resulted in ordinary villagers becoming local guides, who had to learn more about the village and the park. They, however, were willing to do so.

Table 105

Local residents' perception of adverse impacts caused by the village tourism

Local residents	Lifestyle has been changed		Number of respondents
	yes	no	
With tourism involvement	4	16	20
Without tourism involvement	6	14	20
Total	10	30	40

n=40

Thirty-two out of 40 villagers with/without tourism involvement agreed that the village tourism explicitly caused an increasing in garbage and wastes. Plastic bags, beverage cans, styrofoam containers, bottles and so on were regularly seen in the village's attractions, along the streams, waterfalls, and the pathways to gardens.

Table 106

Local residents' perception of adverse impacts caused by the village tourism

Local residents	Increased garbage and wastes		Number of respondents
	yes	no	
With tourism involvement	16	4	20
Without tourism involvement	16	4	20
Total	32	8	40

n=40

Table 107 showed the tourism impact in increment of demand on local resources. Six out of 40 villagers with/without tourism involvement stated that there were sales of wild plants to visitors. Some brought up the topic of water shortage especially in the dry but also in the tourism season. The interviewees stated that water uses increased during this period. Water was normally taken from natural streams through viaducts and used for agriculture and households.

Table 107

Local residents' perception of adverse impacts caused by the village tourism

Local residents	Increased demand on local resources		Number of respondents
	yes	no	
With tourism involvement	2	18	20
Without tourism involvement	4	16	20
Total	6	34	40

n=40

Six of 40 villagers with/without tourism participation provided additional ideas of the tourism impacts caused by the village tourism. The interviewees stated that tourists sometimes brought undesirable behavior to the village. Some tourists came to the village to use drugs because the agro-forests and gardens were the expedient havens for the tourist drug users. Moreover, the outsiders traveled to the village with another purpose. For example, they had parties with alcoholic beverage, karaoke and made annoying noises for the villagers and other travelers.

Table 108

Local residents' perception of adverse impacts caused by the village tourism

Local residents	Other		Number of respondents
	yes	no	
With tourism involvement	4	16	20
Without tourism involvement	2	18	20
Total	6	34	40

n=40

All 40 villagers with/without tourism involvement knew that there was a collaborative relationship between the village and the Khao Luang National Park. They explained that at any time the villagers had trekking tours to the peak of Khao Luang, they were required to inform the number and ask permission from the park staff before touring. They also realized that the fees collected from the visitors were periodically portioned to the park.

Table 109

Local residents' perception of the collaborative relationship in tourism between the village and the park

Local residents	Collaborative relationship between the village and the park	Number of respondents
	yes	
With tourism involvement	20	20
Without tourism involvement	20	20
Total	40	40

n=40

From the interview survey, the researcher categorized the villagers' average income from less than US\$ 100 to between US\$ 401 to US\$ 500. Seventeen of 20 villagers with tourism involvement received less than US\$ 100 per month. Meanwhile seven of 20 villagers without tourism involvement gained less than US\$ 100 per month. Two villagers with tourism involvement gained between US\$ 101 to US\$ 200 per month, but eight villagers without tourism involvement received US\$ 101 to US\$ 200 per month. Moreover, there were two villagers without tourism involvement who received from US\$ 401 to US\$ 500 per month.

Table 110

Local residents' average income

Local residents	Income per month (US\$)					Number of respondents
	Less than 100	101- 200	201-300	301-400	401-500	
With tourism involvement	17	2	0	1	0	20
Without tourism involvement	7	8	2	1	2	20
Total	24	10	2	2	2	40

n=40

From the interview survey, the total number of the villagers was 40. The villagers with tourism participation were 11 male and nine female interviewees. The villagers without tourism involvement were 14 male and six female interviewees.

Table 111

Local residents' gender

Local residents	Gender		Number of respondents
	Male	Female	
With tourism involvement	11	9	20
Without tourism involvement	14	6	20
Total	25	15	40

n=40

Plans and operations favorable to developing the environment and ecosystems in the village

The interview survey showed that the Village of Khiriwong has long had policies on ecosystem protection and preservation before the arrival of tourism. The village and community leaders including the villagers have reciprocal understanding about the value of natural resources. Main policies to support environment and ecosystems in the Village of Khiriwong were described in the following activities.

1. No deforestation
2. No herbicide allowed in the village and vicinity
3. No removing wild plants
4. Preserve aquatic animals such as rare fresh water fish
5. Preserve natural water resources
6. Reforest an area which has been deforested
7. Keep roadsides clean and safe
8. The village has set the tourism rules and regulations for tourists' desired

behavior. The village meeting was held with village leaders and local residents every month. The outcomes and conclusions were reported to the entire community by loud-speakers which were installed all over the village area.

Conclusions

Visitors to the Village of Khiriwong

Natural landscapes and environment were the main factors to draw visitors to the Village of Khiriwong. During the stay, the hospitality of the villagers became the

visitors' primary preference. The biggest obstacle of visitors to get to the village was the inconvenient contact for village information. Printed materials like books, postcards and pictures of the village were brought to visitors' attention to have available as souvenirs in the village. The telecommunications like local and long distance telephones were the services visitors would like to have available in the village. Visitors' expectation to travel to the village was to be close to nature. The sustainable ecotourism element described as tourism that supported and sustained local ecosystems, and tourism which encouraged guests to be concerned about, and protective of the host community and environment were selected to portray the best feature of the Khiriwong Village's tourism. Local guides were friendly to visitors. Most visitors traveled to the City of Nakhon Si Thammarat by train and then by car to the Village of Khiriwong. The average length of stay in the village was three to five days. Most visitors stayed with local host families. During the survey, travel parties to the village comprised 15-60 visitors. Most visitors were students ages 20-29 who were recommended to travel to the park by their schoolteachers, the Tourism Authority of Thailand and some knew the village by documentary programs on television and travel magazines. Most visitors were from the central part of the country including Bangkok. The visitors' average income was less than US\$ 100 per month. Visitors had very satisfactory experiences and would travel back to the village again.

Visitors to the Khao Luang National Park

Most visitors to the Khao Luang National Park were captivated by mountains. Natural beauty, waterfalls and streams were their preferences after visiting the park. Books and other printed materials like postcards and pictures were selected by visitors as

souvenirs in the park. Local and long distance telephones were the service visitors would like to have available when staying in the park. Visitors' motivation to the park was to be close to nature. Visitors believed that the park tourism was tourism which encouraged guests to be concerned about, and protective of the host community and environment, and tourism which supported and sustained local ecosystems. Visitors experienced that the park used guides native to visited areas and local guides were friendly to them. Main transportation of visitors to the City of Nakhon Si Thammarat was by car and then by car to travel to the park. The average length of stay was three-five days. Most visitors pitched camps and set up their tents in the park. Most travel parties constituted up to eight visitors. Friends were source of information to most visitors to the park. During the survey, most visitors were from the Province of Nakhon Si Thammarat and most of them were government service officials. The visitors' average income was between US\$ 301-400 per month. Most visitors were between 30-39 years old of age. Most visitors had very satisfactory traveling experience to the park and would revisit.

The interview with experts in Biology and Ecology

Tourism in the Village of Khiriwong

Modes of transportation like off-road, four-wheel vehicle and walk were recommended to travel to the village. The visitor carrying capacity of 20-100 visitors per day in the village was advised. Waste disposal management in the village by the municipal garbage system and municipal recycle garbage system were preferred by the experts. Homes and cottages were the most suitable accommodation for visitors. Posting desired behavior was the preferred way to inform tourists while staying in the village. The experts believed that environmental impacts caused by tourism activities in the

village included wildlife disturbance, pollution from vehicles and wastes. Tourism activities in the Village of Khiriwong were accepted by the experts. The experts believed that ideal trips to the village should be tourism that caused no harm to the village and the surroundings, caused no disturbance to the village's way of life and tourism for visitors to learn and value the village's way of life.

Tourism in the Khao Luang National Park, at Karom Unit

The preferred mode of transportation to the park was by walking. The proper visitor carrying capacity of the park was between 3,000-4,000 per month. For waste disposal management, the park should classify and then ship it to be eradicated in the City of Nakhon Si Thammarat. It was recommended that visitors put up tents or pitch camps while staying in the park. The park should provide information of desired behavior for visitors by posting or informing visitors on the spot or before touring. In addition, distributing brochures to visitors was another recommended way. Experts' perception of the most significant environmental impacts of tourism activities in the park included wildlife disturbance. All experts agreed with park tourism in the Khao Luang National Park and decided that ideal trips to the park should be tourism that caused no harm to nature and ecosystems, tourism so visitors could learn the values of ecosystems and environment, and tourism that caused no harm to wildlife.

The interview with the Khao Luang National Park staff, at Karom Unit

The regular mode of transportation to the park was by walking and pick-up cars. The visitor carrying capacity to the park varied from 1,500 to 6,000 per month. The park managed waste disposal by shipping it to be eradicated in the City of Nakhon Si Thammarat. For visitor information about the desired behavior while traveling in the park, the park distributed information through brochures, posting, informing visitors on the spot and before touring. Regarding the environmental impacts caused by park tourism activities, wildlife disturbance, walking off the natural trails and wastes were among the critical problems. However, the park staff believed that park tourism was an appropriate and effective means to natural conservation. The park had collaborative relationship in tourism with the Village of Khiriwong.

The interviews with the local residents in the Village of Khiriwong

After the arrival of tourism, the local residents perceived the increase of wastes and garbage in the Village of Khiriwong. The village tourism brought benefits and income to most local residents who have tourism involvement. The village administrators and community leaders significantly took part in the village tourism policies. However, sometimes controversial issues concerning tourism benefits happened and were impending. Drugs were brought to the village by tourists and became the critical problem of the village youth. There was no increment of tourism employment in the village. The local residents' family members were able to share and work jointly. Yet, there were certain employments among the local residents during and out of tourism season. Local residents perceived that tourism brought benefits to their community. Most local residents

in the village were orchard gardeners and farmers. Water use and conservation was the most important subject among the local residents in the village. The local residents with/without tourism involvement agreed with the village tourism and they needed more education like schools, to support the village tourism. They experienced that tourism explicitly brought income and better living to the village. They agreed that there was a collaborative relationship in tourism between the village and the Khao Luang National Park. Seventeen out of 20 local residents with tourism involvement received less than US\$ 100 per month. Whereas, seven of 20 local residents without tourism involvement gained less than US\$ 100 per month.

The final chapter provides a summary of the findings of this study. It also contains the recommendations for the Village of Khiriwong and the Khao Luang National Park research to sustain ecotourism and become the least impacted tourism attractions. Additionally, the recommendations for future research are presented by the author. As mentioned in the chapter of literature review, the study of sustainable ecotourism in Thailand was restricted by the limited number of resources on this subject.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This final chapter entails a summary of the quintessential findings of this study. According to the objectives, recommendations for sustainable ecotourism in the Village of Khiriwong and the Khao Luang National Park are generated. Furthermore, the researcher also provides perspectives and recommendations for the future study.

Restatement of problem and research objectives:

The Village of Khiriwong is a scenic community in the area of the Khao Luang National Park of southern Thailand. Visitors travel to the village to view the local way of life, and agricultural activities and to the park because of its abundant natural resources. These places became the researcher's focus in examining if tourism can become an effective instrument in sustaining the village's way of life and natural resources. Furthermore, whether visitors to the village and the park can enjoy their visits, and if the host community and the park are culturally and environmentally impacted by tourism activities.

The study had the following fundamental objectives:

1. to determine whether sustainable ecotourism provides the tourists with a rewarding experience;
2. to determine whether sustainable ecotourism contributes environmental conservation; and

3. to determine whether sustainable ecotourism distributes economic benefits to the receiving community without also causing cultural disruption.

Summary of methodology

Questionnaires and interview questions were prepared and employed as the fundamental data collection instrument for this study. Two types of questionnaires were separately distributed to the visitors traveling to the village and the tourists to the national park. Four distinctive sets of interview questions were used in the study; two for the experts in Biology and Ecology, one for the national park staff, and the last one used for the local residents. According to the objective concerning whether the sustainable ecotourism contributes the rewarding experience to the visitors to the village and the national park, the subjects were visitors to Village of Khiriwong and the Khao Luang National Park during September 6th – November 6th, 2000. In addition, the researcher also administered a mailed survey to the visitors who visited the village and park during 1997-99. Experts in Biology and Ecology were asked in person during the survey period to share their perceptions and suggestions of the sustainable ecotourism in the village and the park. Park staff at the Khao Luang National Park were interviewed in person to provide their perceptions and recommendations of park tourism during the survey period. Local residents, with and without tourism involvement, were selected and asked in person to convey their perceptions and suggestions of village tourism during the survey.

Discussion of significant findings:

This section involved a summary of the critical findings of this study. The findings were discussed based on the objectives of study.

Objective 1 To determine whether sustainable ecotourism provides the tourists with a rewarding experience

Visitors to the Village of Khiriwong

There were 87 survey respondents who visited the Village of Khiriwong during the on-site survey and from the mailed questionnaire survey. Natural landscapes and environment were the main factor to draw visitors to the Village of Khiriwong. During the stay, the hospitality of villagers became the visitors' favorite experience. Those results were in keeping with Scheyvens' (1999) findings that ecotourism was the activity that could relate to both cultural and environmental tourism. The obstacle of visitors to get to the village was the inconvenient contact for village information. Printed materials like books, postcards and pictures of the village were brought to visitors' attention to have available for sale as souvenirs in the village. The telecommunications, like local and long distance telephones, were the services visitors would like to have available in the village. This need was in contrast to Boo's (1990) notion that nature tourists did not anticipate lodging accommodation, food, or nightlife that corresponded to the standards of comfort or luxury. Visitors' desire to travel to the village was to be close to nature. The sustainable ecotourism element described as tourism that supported and sustained local ecosystems, and tourism which encouraged guests to be concerned about, and protective of the host community and environment were selected to portray the best

feature of the Khiriwong Village's tourism. Local guides were friendly to visitors. Most visitors traveled to the City of Nakhon Si Thammarat by train and then by car to the Village of Khiriwong. The average length of stay in the village was three to five days. Most visitors stayed with local host families. During the survey, travel parties to the village comprised 15-60 visitors. Most visitors were students ages 20-29 years, who were encouraged to travel to the park by their schoolteachers, the Tourism Authority of Thailand, and by documentary television programs and travel writers. Most visitors were from the central part of the country, including Bangkok. The visitors' average income was less than US\$ 100 per month. This study revealed that most visitors to the village were students who had financial support from their parents. Visitors had a very satisfactory experience and would return to the village. This supported the previous study of Pedersen (1991) that, ecotourism offered a pleasant experience in nature, a requisite for successful ecotourism.

As previously stated in Chapter 1, the village was well-known for its agricultural products such as fresh fruits from gardens, the survey outcome demonstrated the visitors' motivation to travel to the village was exposure to natural landscapes and environment rather than fruit cultivation and consumption. This was the result of the rainy season and it was not the season for harvesting. Students were a possible target market segment for the village tourism in the low tourism season. So, this finding should urge the villagers to study the potential promotion plan for retaining this market segment and attracting more tourists to the village in the low tourism season.

Visitors to the Khao Luang National Park

There were 56 respondents from visitors who visited the Khao Luang National Park during the on-site survey and from the mailed questionnaire survey. Most visitors to the Khao Luang National Park were captivated by mountains. Natural beauty, waterfalls and streams were their main preferences after visiting the park. From these results, they championed the concept of Epler Wood, Gatz and Lindberg (1991) that, the intention of travel to the natural areas was to discern the culture and the natural background of the surroundings. Books and other printed materials like postcards and pictures were selected by visitors as souvenirs of the park. Local and long distance telephones were the service visitors would like to have available when staying in the park. Visitors' motivation to the park was to be close to the nature. Visitors believed that the park tourism was tourism which encouraged guests to be concerned about, and protection of the host community and environment, and tourism which supported and sustained local ecosystems. Visitors learned that the park used guides native to visited areas and local guides were friendly to them. Main transportation of visitors to the City of Nakhon Si Thammarat was by car and then by car to travel to the park. The average length of stay was three-five days. Most visitors pitched camps or set up their tents while staying in the park. Most travel parties constituted up to eight visitors. Friends were source of information to most visitors to the park. During the survey, most visitors were from the province of Nakhon Si Thammarat and most of them were government service officials. The visitors' average income was between US\$ 301-400 per month. Most visitors were between 30-39 years old of age. For the average stay, number of party to the village and visitors' age, its results endorsed the previous study of Chudintra (1993) that, most park visitors were Thai people, who

were prone to be young persons traveling in large groups during a short period of time. Most visitors had very satisfactory traveling experience to the park and would revisit.

Objective 2 To determine whether sustainable ecotourism contributes to environmental conservation

The interview with experts in Biology and Ecology

Tourism in the Village of Khiriwong

Modes of transportation like off-road, four-wheel car and walk were recommended to travel to the village. The visitor carrying capacity of 20-100 visitors per day in the village was advised by the scientists. Waste disposal management in the village by the municipal garbage system and municipal recycle garbage system were preferred by the experts. Homes and cottages were the most suitable accommodations for visitors. Posting desired behaviors was the preferred way to inform tourists while staying in the village. The experts believed that environmental impacts caused by tourism activities in the village included wildlife disturbance, pollution from vehicles and wastes. Tourism activities in the Village of Khiriwong were accepted by the experts. The experts believed that the ideal trips to the village should be tourism that caused no harm to the village and the surroundings, caused no disturbance to the village's way of life and should be tourism so visitors could learn and value the village's way of life.

Tourism in the Khao Luang National Park, at Karom Unit

The preferred mode of transportation to the park was by walking. The proper visitor carrying capacity for the park was between 3,000-4,000 visitors per month. For waste disposal management, the park should classify and then ship it to be eradicated in the City of Nakhon Si Thammarat. It was recommended that visitors put up tents or pitch camps while staying in the park. The park should provide information of desired behaviors for visitors by posting or informing visitors on the spot or before touring. In addition, distributing brochures to visitors was another recommended medium. Experts' perception of the most significant environmental impacts of tourism activities in the park included wildlife disturbance. All experts agreed with park tourism in the Khao Luang National Park and discovered that the ideal trips to the park should be tourism that caused no harm to the nature and ecosystems, tourism so visitors could learn the values of ecosystems and environment, and tourism that caused no harm to wildlife.

The interview with the Khao Luang National Park staff, at Karom Unit

The regular mode of transportation to the park was by walking and pick-up trucks. Staff estimates for ideal park carrying capacity varied from 1,500 to 6,000 visitors per month. The park managed waste disposal by shipping it to be eradicated in the City of Nakhon Si Thammarat. For visitor information about the desired behaviors while traveling in the park, the park distributed information through brochures, posting, informing visitors on the spot and before touring. Regarding the environmental impacts caused by park tourism activities, wildlife disturbance, walking off the natural trails and wastes were among the critical problems. The park staff, however, believed that park

tourism was an appropriate and effective means to promote natural conservation. The park had collaborative relationship in tourism with the Village of Khiriwong.

Objective 3 To determine whether sustainable ecotourism distributes economic benefits to the receiving community without also causing cultural disruption

The interview with the local residents in the Village of Khiriwong

After the arrival of tourism, the local residents perceived the increase of wastes and garbage in the Village of Khiriwong. The village tourism brought benefits and income to most local residents who have tourism involvement. The village administrators and community leaders significantly took part in the village tourism policies. Drugs were brought to the village by tourists and became the critical problem of the village youth. There was no increase of tourism employment in the village. The local residents' family members were able to share and work jointly. Yet, there were certain employment opportunities among the local residents during and out of tourism season. Local residents perceived that tourism brought benefits to their community. Most local residents in the village were orchard gardeners and farmers. This outcome supported Wallace and Pearce (1996) who believed that ecotourism had economic and other benefits to local residents that complemented rather than replaced traditional practices. Water use and conservation was the most important subject among the local residents in the village. The local residents with/without tourism involvement agreed with the village tourism and they needed more education like schools, to support the village tourism. They believed that tourism brought increased income and better living such as roads to the village. This supported Coccossis' (1996) statement that the effects of tourism might also be favorable.

Local residents have the advantage of access to upgraded infrastructure and services, which improve quality of life. They agreed that there was a collaborative relationship in tourism between the village and the Khao Luang National Park. This relationship supported Lindberg's (1991) statement that a national nature tourism board would be useful with representatives from parks, tourism and other private tourism industry for emphasizing nature tourism. Seventeen of 20 local residents with tourism involvement earned less than US\$ 100 per month. Whereas, seven of 20 local residents without tourism involvement earned less than US\$ 100 per month. Scheyvens (1999) stated that it was hard to accept that all community members possess equal importance and the same right including opportunities in life with mutual targets. In the case of the Khiriwong Village's tourism, there were a limited number of families able to host visitors. The other families had to wait for their turn at tourism involvement. Moreover, because of the tourism seasons, they were unfortunately not able to have home-stay year round. This resulted in a lowered average income. From the interview survey, it showed that the Village of Khiriwong had long made policies on ecosystem protection and preservation before the arrival of tourism. The village and community leaders including the villagers have a reciprocal understanding about the value of natural resources. This related to the suggestion of Wallace and Pearce (1996) that ecotourism maximized the early and long-term participation of local residents in the decision-making process that determined the kind and amount of tourism that should occur. The village's policies on environment supported Cater's (1993) comprehension that a community-based access to ecotourism realized that need to enhance both quality of life of local residents and the conservation of resources.

Conclusions

The Village of Khiriwong and the Khao Luang National Park have a significant amount of domestic tourism. These examples of community-based tourism and national park tourism have become a vital source of Thailand's pride and a concentration on domestic tourism mirrors a growing interest in environmental, social and cultural issues and conservation of the country's unique ecological endowments. However, significant findings of environmental and social changes caused by the village and park tourism were discovered by the researcher. Examples of tourism activities included wildlife disturbance, walking off the natural trails and wastes were the most severe problems found in the national park. Drugs brought by the visitors to the village became a major social problem. Wastes and trash were obviously seen along the village's attractions and roadsides. According to the domestic tourism campaign made by the Thai government, the number of Thais visiting the Khao Luang National Park increased from about 230,330 in 1992 to over 968,000 in 1997. If the community-based and park tourism is to form a sustainable economic foundation for the Village of Khiriwong and the Khao Luang National Park, careful planning is imperative to retain the development procedure controlled by the village and the park, with the consultation of other stakeholders, like the Tourism Authority of Thailand, and the Department of Forestry.

Sustainable ecotourism can provide an alternative economic foundation, but it does not occur automatically, or without social and environmental impacts. If it is to be sustainable, local residents must be allowed to capture, more or less, a significant amount of the economic multipliers generated by tourism. Successful sustainable ecotourism requires local participation in development planning and outside assistance with the

provision of necessary infrastructure, training and ability. Community involvement is also essential for examining adverse impacts on local residents who live in areas undergoing sustainable ecotourism development. In the Village of Khiriwong, the village community leaders have begun to promote community-based sustainable ecotourism initiatives and established the official visitor center in October 2000.

Recommendations for the Village of Khiriwong

The significant findings of this research resulted in the following recommendations for the local residents and community leaders in the Village of Khiriwong.

1. It is suggested that residents in the Village of Khiriwong study potential ways of efficient communication between the village and the prospective visitors. Visitors demand better tourism promotional and information systems.
2. During the low tourism season or the rainy season, to attract more prospective visitors to the village and the park. It is advised that the village residents study the probability of increasing tourism activities to extend the visitors' average stay. Buddhist events like Buddhist Rent or Buddhist Rains Retreat, Chak Pra Festival (Pulling Buddha Image Festival) can be an instrument for village tourism promotion. Food festivals and local folkdances are strongly recommended by the researcher to attract more visitors in this season.
3. From the survey results about transportation to the village, it is suggested that the village provide more directional signs installed along the roadsides and a village map to visitors for their improved safety and convenience.

4. According to the visitors' experiences, it is believed that the village residents should consider the possibility of maintaining and preserving the remaining original house styles, which are very captivating to visitors.
5. Regarding the pricing of village and park tourism activities and attractions, tourism operators should revise the village's pricing, the findings suggest the village should revise the pricing structure and update in an explicit manner.

The survey results implied that the cost of village and park tourism were rather considerable for visitors. The village residents may create village and park tourism promotion by offering half-price deals, including food and lodge for another day of stay after the fifth day of stay. Student rate is preferred by the researcher for the potential student market segment with budget trips.

Proper discounts on the price of meals and lodge for visitor parties more than 10 people could be provided by the residents.
6. It would be useful to collect visitors' general information, for the future survey research, if the village is able to systematically record the visitors' tourism intentions and characteristics at registration. This will assist the village in realizing the visitor numbers each year and to plan properly in advance for village tourism plan and promotion during the high and low tourism season.
7. The survey results encouraged the notion that the village should establish a particular visitor information center to assist the newly arrived visitors. This will enhance the visitors' first impression and confidence.

8. If tourism is to promote community development in the Village of Khiriwong, it should concentrate on expanding, improving and promoting locally owned facilities and services. In 2000, a few private lodging accommodations like resorts were established by the local residents to accommodate visitors, indicating that village tourism was beginning to generate some local economic benefits but for only a group of investors. This resulted in the unbalanced economic benefits to other local residents who host visitors. The researcher suggests that the community leader, local residents and the investors discuss the possibility of allotting the tourism benefits. Otherwise, this controversial issue will become a chronic conflict.
9. Because of the mutual boundaries of the Village of Khiriwong and the Khao Luang National Park, it is suggested that the village and the park discuss the village and park tourism periodically, so that the village and the park can understand impending or future tourism problems and solutions.
10. This study also reviewed a variety of environmental impacts caused by the village and park tourism activities. Wastes and trash became the most conspicuous problem in the village. As a result of this, it is suggested that the village residents design certain measures to improve the village's surroundings. Warning signs of "No Littering" or "Please keep clean as you do at home" are recommended by the researcher to remind visitors. It would be more helpful if the village residents could provide and install more trashcans, which are landscaped to the surroundings along the attractions and roadsides. Penalties such as a fine should be given to visitors who violate or

disobey the village's agreement. A non-profit organization like Green Leaf in Thailand, which is favorable to the natural conservation and cultural sustainability is also recommended by the researcher to supervise and evaluate the village and park tourism practices.

11. From the survey, the community leader manages volunteers on a 24-hour patrol for rigid prevention and protection from drugs, which may be brought into the village by visitors or even the villagers. Volunteers can ask permission from visitors, strangers or even villagers for inspection. If found guilty of holding drugs or any additives, the volunteers will report it to the community leader for investigation and then notify the police. The researcher believes that this method is highly effective for minimizing a drug invasion to the villagers or other tourists.

Recommendations for the Khao Luang National Park, at Karom Unit

The significant findings of this research resulted in the following recommendations for the Khao Luang National Park.

1. The survey disclosed that visitors to the park encountered some difficulties about directions and especially, dangerous situations. It is advised that the park provide more warning signs installed at specific danger spots in the park area.
2. The results revealed that the park exhibition at the Khao Luang National Park was rated almost the least enjoyable of visitors' expectations and preferences. This is an indicator to help the park staff consider how to improve information

distribution. Perhaps, the slideshows of indigenous wildlife and other park's features for visitors before the park tour are a practical instrument.

3. During the survey period, there were some foreign tourists visiting the park. They provided the idea that they had some communication deterrents with the park staff. It is suggested that the park provide tour guides or receptionists who are able to provide information in English or any other foreign languages like German and Japanese. Brochures or booklet in those languages are also useful instruments to offer more rewarding experiences to those visitors.
4. During the low tourism season or the rainy season, to attract more prospective visitors to the Khao Luang National Park, it is advised that the park staff study the probability of increasing park tourism activities and extending the visitors' average stay. Park exhibitions and displays including auditorium, pictures of wildlife and knowledgeable park staff are recommended by the researcher to create more visitors' experiences during the rainy season. The park might provide park tour programs during this time such as "Let's observe nocturnal animals " or "Explore the rainy season's native plants", which thrive or bloom in the rainy season. The park may arrange and landscape the venue similar to the real jungle and keep those examples of living native wildlife. Prospective visitors can value the natural resources and learn more of what they have never seen or discerned only from the pictures.
5. Because of the mutual boundaries of the Village of Khiriwong and the Khao Luang National Park, it is suggested that the village residents and the park

staff discuss the village and park tourism periodically so that the village and the park can understand impending or future tourism problems and solutions.

6. Based upon the survey outcomes, wildlife disturbance, walking off the natural trails and wastes emerged as the most critical effects from park tourism activities. The researcher believes that from the increasing number of visitors to the park during 1992-1999, tourism development in the future will be more sensitive to its ecological impacts, and will highlight nature-based experiences. Whereas, the park visitor carrying capacity has been suggested by the park staff, the researcher imagines that the environmental impacts caused by the visitors cannot be easily dismissed. The park should study the limits of acceptable change, which enables the park staff to think about acceptable levels of impacts and how to deal with them.

Recommendations for future study

Based on the limited resources on this sustainable ecotourism research topic, the researcher strongly recommends future research and more study. The recommendations for future research are as follows:

1. Future research should emphasize the village and park tourism in the dry season. This study was conducted in Thailand by the researcher during the rainy season, which meant the low tourism season of the study sites. Rainy season influences local residents' traditional culture and behaviors. Major Buddhist events and temple activities are often held during this time. Consequently, the researcher believed that the information collected from a

small number of respondents who traveled to the village and park in this season for data analysis might be different from research findings during the high tourism season.

2. There are other community-based ecotourism sites in Thailand like the Village of Khiriwong and the Khao Luang National Park. It would be interesting to administer comparative surveys in those places. The researcher is confident that the information from each study area will provide various insights and understandings for future and reciprocal sustainable ecotourism.

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Appendix A

Visitors to the Village of Khiriwong

Dear the visitors to the Village of Khiriwong:

You are an important part of a study about “Sustainable Ecotourism in the Village of Khiriwong and the Khao Luang National Park, Thailand”. This study is conducted by Kitsada Tungchawal for a master’s degree thesis in Hospitality and Tourism Program at the University of Wisconsin-Stout, USA. Please answer the following questions. All individual information will be kept confidential. The collective data will be beneficial to the Village and Park for future developmental considerations.

Thank you very much for your contribution.

1. What are your motivations for visiting the Village of Khiriwong?

(Please circle **one** or **more**.)

Khiriwong Village

- a. Handicrafts, souvenirs
- b. Fruit cultivation and consumption
- c. Natural landscapes, environment
- d. Local people, way of life
- e. Village history
- f. Overnight in the village
- g. Cultural activities
- h. Other _____

2. What did you like most about the village stay?

- a. Experiencing new and different lifestyles
- b. Trying local foods
- c. Hospitality of villagers
- d. Rainforest scenery
- e. Nice weather
- f. Being daring and adventuresome
- g. New things and knowledge
- h. New kind of tourism
- i. Meeting people with similar interests
- j. Other _____

3. What did you dislike about the village stay?

4. What kind of gifts, souvenirs and services would you like to have available?

Gifts and souvenirs

- a. Shirts printed “Khiriwong”
- b. Key holders
- c. Books and other printed materials about “Khiriwong”
- d. Other _____

Services

- | | |
|--|----------------------|
| a. Grocery stores | g. Post office |
| b. Laundry service | h. Car rental |
| c. Pubs and bars | i. Weather forecasts |
| d. Internet café | j. Gambling |
| e. Local and long distance telephones | k. Other_____ |
| f. Popular franchised fast food service like McDonalds | |

5. What are your expectations from the trips to the village?

- True relaxation
- Learning about way of life and culture
- Viewing new landscapes
- Meeting new people
- Being close to nature
- Doing something new
- Having fun and being entertained
- Other_____

6. Which two (2) of the following elements of sustainable ecotourism do you believe the village best meets:

Please select **two (2)** elements.

Khiriwong Village

- Tourism which has social equity and community involvement
- Tourism which maintains the full range of recreational, educational and cultural opportunities within and across generations
- Tourism which allows the guest to gain an understanding of the region visited
- Tourism which encourages guests to be concerned about, the protective of the host community and environment
- Tourism which is concerned with the quality of experiences
- Tourism which is based upon activities or designs which reflect the character of an area
- Other_____

7. What is the local guides' training and ability?

- Friendly
- Knowledgeable about ecology and environment
- Knowledgeable about the plants and animals
- Knowledgeable about the local culture
- Helpful
- Other_____

8. How did you travel to the Province of Nakhon Si Thammarat?

- Bus
- Car
- Train
- Plane
- Other_____

9. How did you travel to the village?

- Bus
- Car
- Walk
- Other_____

10. What is your length of stay in the village?

- a. Less than one day
- b. One day
- c. Two days
- d. Three to five days
- e. One week
- f. More than one week
- g. Other_____

11. How did you stay in the village?

- a. I did not stay in the village.
- b. Camping, tents
- c. Home-stay
- d. Other_____

12. Number of people in your travel party to the village:

- a. Only yourself
- b. Two
- c. Three
- d. More than three people
- e. Other_____

13. How did you learn about the Village of Khiriwong?

- a. Advertisement in travel magazine
- b. Word of mouth
- c. Friends
- d. Web site
- e. Travel agents
- f. Other_____

14. You are a. Male b. Female**15. What is your nationality?** a. Thai b. Asian c. Western d. Other_____**16. The name of the place of your origination**_____**17. What is your occupation?**

- a. Student
- b. Government service
- c. Employee
- d. Self-employed
- e. Unemployed
- f. Other_____

18. What is your average income per month?

- a. Less than US\$ 100 a month (approximately Baht 3,800)
- b. Between US\$ 101 and US\$ 200 (Baht 3,838 – Baht 7,600)
- c. Between US\$ 201 and US\$ 300 (Baht 7,638 – Baht 11,400)
- d. Between US\$ 301 and US\$ 400 (Baht 11,438 – Baht 15,200)
- e. Between US\$ 401 and US\$ 500 (Baht 15,238 – Baht 19,000)
- f. More than US\$ 501 (Baht 19,038)

- 19. Age:**
- a. 10-19 years
 - b. 20-29 years
 - c. 30-39 years
 - d. 40-49 years
 - e. 50-59 years
 - f. Over 60 years
- 20. Do you think you will travel to the Village of Khiriwong again?**
- a. Yes
 - b. No
- 21. Overall, are you satisfied with the village tourism? (Please circle one)**
- a. Very satisfied
 - b. Satisfied
 - c. Neutral
 - d. Partially satisfied
 - e. Not satisfied
- 22. Please provide any other suggestion and comments of your visit.**

Appendix B

Visitors to the Khao Luang National Park

Dear the visitors to the Khao Luang National Park:

You are an important part of a study about “Sustainable Ecotourism in the Village of Khiriwong and Khao Luang National Park, Thailand”. This study is conducted by Kitsada Tungchawal for a master’s degree thesis in Hospitality and Tourism Program at the University of Wisconsin-Stout, USA. Please answer the following questions. All individual information will be kept confidential. The collective data will be beneficial to the Village and Park for future developmental considerations.

Thank you very much for your contribution.

1. What were your motivations for visiting Khao Luang National Park?

(Please circle **one** or **more**.)

- a. Diversity of vegetation such as certain kinds of ferns, etc.
- b. Short rainforest walks
- c. Wildlife viewing such as bird watching
- d. Rainforest day trips
- e. National Park sightseeing
- f. Waterfalls, streams
- g. Mountains
- h. Other _____

2. What did you like most about the park?

(Please circle **one** or **more**.)

- a. Landscapes, geographic location, mountains
- b. Natural beauty, waterfalls and streams
- c. Exhibitions
- d. Native wild plants, unknown and unseen vegetation, etc.
- e. Native wild animals such as hornbills, tree-dwelling animals, etc.
- f. Park staff, guides
- g. Climate or weather
- h. Other _____

3. What did you dislike about the park?

4. What kind of gifts, souvenirs and services would you like to have available in the park?

(Please circle **one** or **more**.)

Gifts and souvenirs

- a. Shirts printed “Khao Luang National Park”
- b. Key holders
- c. Books and other printed materials about “Khao Luang National Park”
- d. Other _____

Services

- | | |
|--|----------------------|
| a. Grocery stores | g. Post office |
| b. Laundry service | h. Car rental |
| c. Pubs and bars | i. Weather Forecasts |
| d. Internet café | j. Gambling |
| e. Local and long distance telephone | k. Other_____ |
| f. Franchised fast food like McDonalds | |

5. What are your expectations about the trip to the park?

(Please circle **one** or **more**)

- a. True relaxation
- b. Learning about way of life and culture
- c. Viewing new landscapes
- d. Meeting new people
- e. Being close to nature
- f. Doing something new
- g. Having fun and being entertained
- h. Other_____

6. Which two (2) of the following elements of sustainable ecotourism you believe the park best meet?

Please circle two (2) elements.

- a. Tourism which has social equity and community involvement
- b. Tourism which maintains the full range of recreational, educational and cultural opportunities within and across generations
- c. Tourism which allows the guest to gain an understanding of the region visited
- d. Tourism which encourages guests to be concerned about, the protective of the host community and environment
- e. Tourism which is concerned with the quality of experiences
- f. Tourism which is based upon activities or designs which reflect the character of an area
- g. Tourism which supports and sustains local ecosystems
- h. Other_____

7. According to your experience, which characteristics did the park provide the best?

(Please circle **one** or **more**)

- a. Knowledgeable local guides
- b. Using guides native to visited area
- c. Providing a pre-arrival information packet
- d. Participating in local clean-up programs
- e. Pack-it-out requirement
- f. Group size of visitors to the park
- g. Activities sensitive to plants and animals
- h. Waste disposal
- i. Management plans for lodging accommodation
- j. Other_____

8. What is the local guides' training and ability?(Please circle **one** or **more**)

- a. Friendly
- b. Knowledgeable about ecology and environment
- c. Knowledgeable about the plants and animals
- d. Knowledgeable about the local culture
- e. Helpful
- f. Other _____

9. How did you travel to the Province of Nakhon Si Thammarat?

- a. Bus
- b. Car
- c. Train
- d. Plane
- e. Other _____

10. How did you travel from the Province of Nakhon Si Thammarat to the park?

- a. Bus
- b. Car
- c. Walk
- d. Other _____

11. What is your length of stay in the park?

- a. Less than one day
- b. One day
- c. Two days
- d. Three to five days
- e. One week
- f. More than one week
- g. Other _____

12. How did you stay in the park?

- a. Camping, tent
- b. Cabin
- c. Other _____

13. Number of people in your travel party to the park:

- a. Only yourself
- b. Two
- c. Three
- d. More than three people
- e. Other _____

14. How did you learn about the Khao Luang National Park?(Please circle **one** or **more**)

- a. Advertisement in travel magazines
- b. Word of mouth
- c. Friends
- d. Web site
- e. Travel agents
- f. Other _____

15. You are:

- a. Male
- b. Female

16. What is your nationality?

- a. Thai
- b. Asian
- c. Western
- d. Other _____

17. The name of the place of your origination _____

18. What is your occupation?

- a. Student
- b. Government Service
- c. Employee
- d. Self-employed
- e. Unemployed
- f. Other _____

19. What is your average income per month?

- a. Less than US\$ 100 a month (approximately Baht 3,800)
- b. Between US\$ 101 and US\$ 200 (Baht 3,838 – 7,600)
- c. Between US\$ 201 and US\$ 300 (Baht 7,638 – 11,400)
- d. Between US\$ 301 and US\$ 400 (Baht 11,438 – 15,200)
- e. Between US\$ 401 and US\$ 500 (Baht 15,238 – 19,000)
- f. More than US\$ 501 (Baht 19,038)

20. Age:

- a. 10-19 years
- b. 20-29 years
- c. 30-39 years
- d. 40-49 years
- e. 50-59 years
- f. Over 60 years

21. Do you think you will travel to the Khao Luang National Park again?

- a. Yes
- b. No

22. Overall, are you satisfied with the park tourism? (Please circle one)

- a. **Very satisfied**
- b. **Satisfied**
- c. **Neutral**
- d. **Partially satisfied**
- e. **Not satisfied**

23. Please provide any other suggestion and comment of your visit.

Appendix C

Interview Questions: Ecologists and Environmentalists

Dear Environmental Professionals:

You are an important part of a study about “Sustainable Ecotourism in the Village of Khiriwong and Khao Luang National Park, Thailand”. This study is conducted by Kitsada Tungchawal for a master’s degree thesis in Hospitality and Tourism Program at the University of Wisconsin-Stout, USA. Please answer the following questions. All individual information will be kept confidential. The collective data will be beneficial to the Village and Park for future developmental considerations.

Thank you very much for your contribution.

The Village of Khiriwong

- 1. In your opinion, what is the most appropriate mode of transport required to travel to the Village of Khiriwong?**
 - a. Off-road
 - b. Four-wheel
 - c. Walk
 - d. Other _____

- 2. In your perspective, what is the maximum member of visitors to the Village of Khiriwong should accommodate each year?**

- 3. How should the Village of Khiriwong manage waste disposal?**
 - a. Ship back to the City of Nakhon Si Thammarat
 - b. Bury on property
 - c. Municipal garbage system
 - d. Municipal recycle garbage system
 - e. Free disposal
 - f. Burn
 - g. Compost
 - h. Pit
 - i. Other _____

- 4. Describe how the Village of Khiriwong should design its architectural style and facilities:**
 - a. Homestay
 - b. Camping
 - c. Resort complex
 - d. Hotel/motel
 - e. Caravan
 - f. Cottage
 - g. Farmhouse
 - h. Cabins
 - i. Other _____

5. How should the Village of Khiriwong provide information given to visitors about the appropriate behavior favorable to the environment?

- a. Brochures
- b. Internet web site
- c. Post desired behavior
- d. Travel magazines
- e. On the spot or before touring
- f. Other _____

6. What are the impacts of tourism caused by the village on ecosystem?

- a. Wildlife disturbance
- b. Noise
- c. Walking off the natural trails
- d. Pollution caused by the vehicles
- e. Wastes
- f. Other _____

Please provide your recommendations for the solution.

7. Do you agree with the tourism programs provided by the Village of Khiriwong?

- a. Yes
- b. No

Please explain your answer.

8. What are your ideal trips to the Village of Khiriwong?

- a. The trip that causes no harm to the village and the surroundings
- b. The trip that causes no annoyance to the villagers
- c. The trip that the visitors can reciprocally learn and practice the villagers' way of life
- d. Other _____

Please provide any additional description different from above.

9. You are: a. Male b. Female

10. Your occupation and position: _____

11. Your age: _____

Appendix D

Interview Questions: Ecologists and Environmentalists

Dear Environmental Professionals:

You are an important part of a study about “Sustainable Ecotourism in the Village of Khiriwong and Khao Luang National Park, Thailand”. This study is conducted by Kitsada Tungchawal for a master’s degree thesis in Hospitality and Tourism Program at the University of Wisconsin-Stout, USA. Please answer the following questions. All individual information will be kept confidential. The collective data will be beneficial to the Village and Park for future developmental considerations.

Thank you very much for your contribution.

g National Park

- 1. In your opinion, what is the most appropriate mode of transport required to travel to the Khao Luang National Park?**
 - a. Off-road
 - b. Four-wheel
 - c. Walk
 - d. Other _____

- 2. In your perspective, what is the maximum member of visitors the Khao Luang National should accommodate each year?**

- 3. How should the Khao Luang National Park manage waste disposal?**
 - a. Ship back to the City of Nakhon Si Thammarat
 - b. Bury on property
 - c. Municipal garbage system
 - d. Municipal recycle garbage system
 - e. Free disposal
 - f. Burn
 - g. Compost
 - h. Pit
 - i. Other _____

- 4. Describe how the Khao Luang National Park should design its architectural style and facilities:**
 - a. Camping
 - b. Wilderness lodge
 - c. Resort complex
 - d. Hotel/Motel
 - e. Caravan
 - f. Cottage
 - g. Farmhouse
 - h. Cabins
 - i. Other _____

5. How should the Khao Luang National Park provide information given to visitors about the appropriate behavior favorable to the environment?

- a. Brochures
- b. Internet Web Site
- c. Post desired behavior
- d. Travel magazines
- e. On the spot or before touring
- f. Other _____

6. What are the impacts of tourism caused by the park on ecosystem?

- a. Wildlife disturbance
- b. Noise
- c. Walking off the natural trails
- d. Pollution caused by the vehicles
- e. Wastes
- f. Pesticides, herbicides, fertilizers
- g. Other _____

Please provide your recommendations for the solution.

7. Do you agree with the tourism programs to the protected areas provided by the park?

- a. Yes
- b. No

Please explain your answer.

8. What is your ideal conservation trip to protected areas?

- a. The trip that causes no harm to nature
- b. The trip that causes no annoyance to the wildlife
- c. The trip that the visitors can learn the values of the ecosystems
- d. Other _____

Please provide any additional description different from above.

9. You are: a. Male b. Female

10. Your occupation and position: _____

11. Your age: _____

Appendix E

Interview questions: the Khao Luang National Park staff
--

Dear the park authorities of the Khao Luang National Park:

You are an important part of a study about “Sustainable Ecotourism in the Village of Khiriwong and Khao Luang National Park, Thailand”. This study is conducted by Kitsada Tungchawal for a master’s degree thesis in Hospitality and Tourism Program at the University of Wisconsin-Stout, USA. Please answer the following questions. All individual information will be kept confidential. The collective data will be beneficial to the Village and Park for future developmental considerations.

Thank you very much for your contribution.

- 1. What is the regular mode of transport and equipment required to travel to the park?**
 - a. Walk
 - b. Truck
 - c. Four-wheel car
 - d. Off-road
 - e. Other _____

- 2. In your opinion, what is the maximum number of visitors the park should allow each year?**

- 3. How does the park manage waste disposal?**
 - a. Ship back to the City of Nakhon Si Thammarat
 - b. Bury on property
 - c. Municipal garbage system
 - d. Municipal recycle garbage system
 - e. Free disposal
 - f. Burn
 - g. Compost
 - h. Pit
 - i. Other _____

- 4. Describe how the park designed its architectural style and facilities:**

- 5. How do park staffs provide information about the park and protected areas to visitors in term of environmental conservation?**
 - a. Brochures
 - b. Internet Web Site
 - c. Post desired behavior
 - d. Travel magazines
 - e. On spot or before touring
 - f. Other _____

6. What are the environmental impacts of activities caused by the park on ecosystems?

- a. Wildlife disturbance
- b. Noise
- c. Walking off the natural trails
- d. Pollution caused by the vehicles
- e. Wastes
- f. Pesticides, herbicides, fertilizers
- g. Other _____

7. Do you agree that tourism can be used as a means to protect the park?

- a. Yes
- b. No

Please explain your answer.

8. Is there any collaborative relationship between the Khao Luang National Park and the Village of Khiriwong?

- a. Yes
- b. No

Please explain your answer.

9. In your opinion, what are the ideal trips to protected areas for visitors?

10. Please describe any suggestions for improving the experience of park visitors at the Khao Luang National Park:

11. Please describe any suggestions for mitigating the impacts of park visitors on the ecosystems of the Khao Luang National Park:

12. What is your average income per month?

- a. Less than US\$ 100 a month (approximately Bhat 3,800)
- b. Between US\$ 101 and US\$ 200 (Bhat 3,838 – 7,600)
- c. Between US\$ 201 and US\$ 300 (Bhat 7,638 – 11,400)
- d. Between US\$ 301 and US\$ 400 (Bhat 11,438 – 15,200)
- e. Between US\$ 401 and US\$ 500 (Bhat 15,238 – 19,000)
- f. More than US\$ 501 (Bhat 19,038)

13. You are: a. Male b. Female**14. Your occupation and position:** _____**15. Your age:** _____

Appendix F

Interview Questions: Local Residents of the Khiriwong Village

Dear Local Residents of the Khiriwong Village:

You are an important part of a study about “Sustainable Ecotourism in the Village of Khiriwong and the Khao Luang National Park, Thailand”. This study is conducted by Kitsada Tungchawal for a master’s degree thesis in Hospitality and Tourism Program at the University of Wisconsin-Stout, USA. Please answer the following questions. All individual information will be kept confidential. The collective data will be beneficial to the Village and Park for future developmental considerations.

Thank you very much for your contribution.

1. Tourism has most impacted which aspect of your village:

(Please circle **one** or **more**.)

- a. Ecological aspect
- b. Economic aspect
- c. Political aspects
- d. Social aspect

Please explain your answer.

2. Identify the impact of tourism on local employment in the village?

- a. Much impact on local employment has happened after the advent of tourism to the village.
- b. Moderate impact on local employment has happened after the advent of tourism to the village.
- c. No impact on local employment has happened after the advent of tourism to the village.

Please explain your answer.

3. How do the economic benefits from tourism support the services to the village?

- a. Improved infrastructure such as water, electricity, telephone etc.
- b. Improved health center
- c. Improved veterinary services
- d. Other _____

4. Most villagers are involved in which aspects of tourism:

- a. Supply of goods and services
- b. Sale of handicrafts
- c. Traditional entertainment and activity
- d. Other _____

5. **How do the villagers utilize their natural resources to support tourism?**
- Water use and conservation
 - Energy
 - Recycling
 - Other _____
6. **What are the local attitudes about sustainable ecotourism?**
- Positive
 - Negative
 - Do not care
 - Other _____
7. **What does the village still need to support sustainable ecotourism?**
- Access to goods and services
 - Quality access to health care
 - Education
 - Communication infrastructure
 - Transportation infrastructure
 - Other _____
8. **How has the villagers' quality of life been influenced by the advent of tourism?**
- Better education
 - Better living
 - Better income
 - Other _____
9. **What are the negative impacts caused by tourism on the village?**
- Local culture has been altered.
 - The villagers' life style has been changed.
 - Increased garbage and wastes
 - Demands on local resources
 - Other _____
10. **Is there any collaborative relationship between the Village of Khiriwong and the Khao Luang National Park?**
- Yes
 - No
- Please explain your answer.
- _____
- _____
- _____
11. **Please describe any improvements in operation of the village, which would benefit the environment.**
- _____
- _____
- _____
12. **What is your average income per month?**
- Less than US\$ 100 a month (approximately Baht 3,800)
 - Between US\$ 101 and US\$ 200 (Baht 3,838 – Baht 7,600)
 - Between US\$ 201 and US\$ 300 (Baht 7,638 – Baht 11,400)
 - Between US\$ 301 and US\$ 400 (Baht 11,438 – Baht 15,200)
 - Between US\$ 401 and US\$ 500 (Baht 15,238 – Baht 19,000)
 - More than US\$ 501 (Baht 19,038)

13. You are: a. Male b. Female

14. Your occupation: _____

15. Your age: _____