

**TOURIST OPINIONS ON TOURIST ATTRACTION ENVIRONMENTAL  
PROBLEMS: A CASE STUDY OF KOH SAMUI DISTRICT,  
SURAT THANI PROVINCE**



**A THESIS SUBMITTED IN PARTIAL FULFILLMENT  
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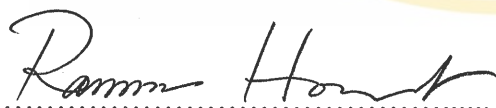
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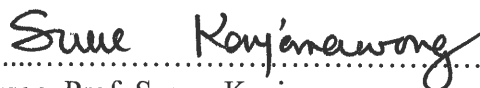
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**TOURIST OPINIONS ON TOURIST ATTRACTION ENVIRONMENTAL PROBLEMS: A CASE STUDY OF KOH SAMUI DISTRICT, SURAT THANI PROVINCE**

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**ABSTRACT**

The purpose of this research is to study tourist opinions on tourist attraction environmental problems in Koh Samui District; Surat Thani Province, factors affecting tourist opinions, problems leading to the degradation of the environment and finally, tourist recommendations for curbing tourism-related environmental problems. The study was carried out using both quantitative and qualitative methods. The sample for the quantitative research comprised 200 Thai tourists and 200 foreigners, 18 years of age and up who stay at Koh Samui at least for 1 night. Data was collected using self-administered questionnaires. The sample for qualitative research comprised 29 local persons in leadership positions, such as businessmen, municipal councilors and government officers. Data was collected by means of in-depth interview.

The results showed that: 1) The level of tourist opinions on tourist attraction environmental problems was at high. 2) The results of ANOVA analysis indicated that nationality and the purpose for traveling affected tourists' opinions of tourism-related environmental problems at the statistical significance level of 0.05. While gender, age, occupation, education, average income, duration of stay, number of visits, forms of visiting travel, placing on the environmental value message perception on conservation of natural tourist attractions and knowledge about the conservation of natural tourist attractions did not affect the opinions of tourists. Moreover, it was found that age had a positive correlation with opinions of tourists concerning tourist-related environmental problems but duration of stay and number of visits had a negative correlation with tourists' opinion of tourism-related environmental problems.

The recommendations were to prepare a report indicating the extent of the environmental degradation caused by tourism as well as certain proposals aimed at solving the existing tourism related environmental problems through legal, social and public relation means

**KEY WORDS: TOURIST / OPINION / ENVIRONMENTAL PROBLEMS / KOH SAMUI**

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ความคิดเห็นของนักท่องเที่ยวต่อปัญหาสภาพแวดล้อมแหล่งท่องเที่ยว ศึกษากรณี อำเภอเกาะสมุย จังหวัดสุราษฎร์ธานี  
(TOURIST OPINIONS ON TOURIST ATTRACTION ENVIRONMENTAL PROBLEMS:  
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บทคัดย่อ

การวิจัยครั้งนี้ มีวัตถุประสงค์เพื่อศึกษาความคิดเห็น ปัจจัยที่มีผลต่อความคิดเห็นของนักท่องเที่ยวต่อปัญหาสภาพแวดล้อมแหล่งท่องเที่ยว อำเภอเกาะสมุย จังหวัดสุราษฎร์ธานี ตลอดจนปัญหาอุปสรรค และแนวทางแก้ไขเกี่ยวกับสภาพแวดล้อมแหล่งท่องเที่ยว อำเภอเกาะสมุย จังหวัดสุราษฎร์ธานี โดยใช้วิธีการศึกษาเชิงปริมาณและคุณภาพ กลุ่มตัวอย่างที่ใช้ศึกษาในเชิงปริมาณคือนักท่องเที่ยวชาวไทยและต่างประเทศ ที่มีอายุตั้งแต่ 18 ปีขึ้นไป ที่เดินทางมาท่องเที่ยวคนเดียว กลุ่ม หรือกลุ่มทัวร์ และพักค้างคืนในเกาะสมุย จำนวน 400 ราย กลุ่มตัวอย่างที่ใช้ศึกษาในเชิงคุณภาพ คือ ผู้นำชุมชน ประชาชนในท้องถิ่น ผู้ประกอบการ เจ้าหน้าที่ภาครัฐ ในพื้นที่ 3 ชุมชน ได้แก่ ชุมชนหน้าทอน ชุมชนเฉวงและชุมชนละไม รวมทั้งสิ้น 29 ราย ผลการศึกษาพบว่า กลุ่มตัวอย่างมีความคิดเห็นต่อปัญหาสภาพแวดล้อมแหล่งท่องเที่ยวในระดับสูงและปัจจัยที่มีผลต่อความคิดเห็นของนักท่องเที่ยวคือสัญชาติและวัตถุประสงค์ในการเดินทาง ซึ่งมีผลต่อความคิดเห็นแตกต่างกันอย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05 ส่วนปัจจัยอื่น ได้แก่ เพศ อาชีพ ระดับการศึกษา รายได้เฉลี่ย ลักษณะกลุ่มสมาชิกในการท่องเที่ยว การให้คุณค่าสิ่งแวดล้อม การรับรู้ข่าวสารเกี่ยวกับการอนุรักษ์แหล่งท่องเที่ยวธรรมชาติและความรู้เกี่ยวกับการอนุรักษ์แหล่งท่องเที่ยวธรรมชาติ ไม่มีผลต่อความคิดเห็นของนักท่องเที่ยว นอกจากนี้ยังพบว่าอายุมีความสัมพันธ์ในเชิงบวกต่อความคิดเห็น ส่วนระยะเวลาในการพักค้างคืนและจำนวนครั้งที่มาท่องเที่ยวมีความสัมพันธ์ในเชิงลบต่อความคิดเห็นต่อปัญหาสภาพแวดล้อมแหล่งท่องเที่ยว

ปัญหาอุปสรรคเกี่ยวกับสภาพแวดล้อมแหล่งท่องเที่ยว คือไม่มีการจัดวางผังเมือง และขาดความเหมาะสมกับสภาพแวดล้อม เกิดทัศนอุจาด สภาพภูมิทัศน์และทรัพยากรท่องเที่ยวถูกทำลาย ขาดระบบการจัดการในสิ่งที่ก่อให้เกิดมลภาวะได้แก่ ขยะ/สิ่งปฏิกูล น้ำเสีย รวมทั้งขาดความเข้าใจในเรื่องการอนุรักษ์สิ่งแวดล้อมทำให้เกิดกิจกรรมบางประเภทส่งผลกระทบต่อสภาพแวดล้อม

สำหรับแนวทางแก้ไขในการวิจัยครั้งนี้คือ จัดทำรายงานความเสื่อมโทรมตามลำดับความรุนแรงของปัญหา พร้อมทั้งแนวทางแก้ไข จัดวางผังเมืองให้สอดคล้องกับสภาพธรรมชาติแหล่งท่องเที่ยว ใช้มาตรการเข้มงวดด้านกฎหมาย เผยแพร่ความรู้และความเข้าใจแก่ประชาชนในเรื่องการอนุรักษ์สิ่งแวดล้อมเพื่อให้เกิดความรักความหวงแหนในการเป็นเจ้าของทรัพยากรแหล่งท่องเที่ยวในท้องถิ่นและสนับสนุนการมีส่วนร่วมของประชาชน นอกจากนั้นแล้วจะต้องลดการโฆษณาประชาสัมพันธ์ ในระหว่างการฟื้นฟูแหล่งท่องเที่ยว เพื่อช่วยในการควบคุมปริมาณนักท่องเที่ยว ตลอดจนสร้างมาตรฐานความปลอดภัยในทุกด้าน

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Statement of the Problem

Tourism is one of recreations to lessen our tension caused by work. At present, not only the foreigners comprehend the importance of tourism, the Thai people are also interested in the relaxation by visiting attractive locations. Consequently, tourism becomes a key factor affecting the economy of communities located at the tourist areas. That is, the tourist business can form careers, employments, and good effects to the country since it is the base of the foreign currency. The Thai Government, therefore, has offered strong supports to tourist industry, which has encouraged high speed of tourist expansion in Thailand since last decade. We are able to state that tourist industry has taken important direct and indirect roles to the economical, social, cultural, and environmental systems. But, in the opposite way, tourist industry has caused an undesirable effect, that is, it has urged huge consumption of natural resources.

It can be said that tourist industry needs low cost, but gives high return in a short period. As long as the resources of tourist attractions have been still valuable and able to respond to tourists' demand, those tourist locations would exist further and could generate the long-term income. Therefore, condition of tourist attractions are essential to attract tourists. But, if tourist attractions decline or are improperly managed, they will not be able to attract tourists any more. So, developing tourist attractions need careful planning and good management, and should not be accelerated too much. But the studies on planning for physical perfection of tourist attractions, services for information supports, and public relations should be conducted whereas management of natural resources must be highest focused so that general environmental circumstances are not deteriorated.

Consequently, Tourism Authority of Thailand (TAT) had Thailand Development Research Institute prepares the master plan for development of Thailand's tourism. Long-term goals to be reached on the year 2012 have been set out so that tourism of Thailand has its Thai unique characteristic according to the world-class standard in respect of attractive tourist attractions, provision of services, and perfect conservation of environment (Thailand Institute of Scientific and Technological Research, 1999).

Although the master plan mentioned above was prepared, the tourist industry remains a sector that has wasted natural resources. As a result, some tourist attractions have been declining due to many causes, which are difficultly avoided. In particular, when approximate 9.5 million international tourists yearly visit Thailand. Moreover, in accordance with the statistics of the 9<sup>th</sup> Economical and Social National Development Plan, it has been estimated that, on the final year of such plan, not less than 14 million foreign tourists will be visiting Thailand. The average rate of international tourists' expansion is approximately 7% per year. Pursuant to the tourism of Thai people, it has been estimated that the number of Thai tourists shall be 59 million in 2006 (The studying project for preparation of an operation plan to develop national tourist industry during the 9<sup>th</sup> Economical and Social National Development Plan B.E. 2003-2006).

Among Thailand's tourist attractions, Samui Island (Koh Samui) is one of renowned tourist attractions in respect of attractive nature, which has been admired and has been a place mostly visited by tourists. Koh Samui is located in Surat Thani Province, 84 kilometers East from the city, with its areas of 247 square kilometers: 21 kilometers wide and 25 kilometers long. The length of roads around the island is 50 kilometers. During the beginning of the reign of King Rama V, Koh Samui was under the administration of Nakhon Si Thammarat Province. But, in 1897, due to the new administrative system, it became Koh Samui District and, up to now, its age is 107 years.

Geographical conditions: 1 in 3 total areas of this island are plains surrounded by mountains, and the hill evergreen forests that are sources of riverhead, and form big

fountains, which are favorable natural attractions, including other attractive places created by natural phenomena of granite that has been continuously eroded by seawater and heat until the granite turns to be in surprising shapes such as Hin Ta-Hin Yai (Grandfather & Grandmother Rocks). Importantly, the attractive nature of beaches and lines of coconut trees around the island are the major charm attracting the tourists around the world. In addition, because of color and impressive environments of each beach, which has its unique characteristic, this coconut island has been never isolated.

Both governmental and private tourist agencies definitely turn the image of Koh Samui to be their main selling point and set up a slogan reflecting the image of this island that:

**“Beautiful corals, clear seawater, white beaches, numerous coconut, the gem of the Gulf of Thailand ”**

(Operation Plan for Tourism of Koh Samui: Thailand Institute of Scientific and Technological Research, 1994: 4).

According to the aforesaid reason, Koh Samui becomes one of Thailand's important attractions and has been well recognized by Thai and foreign tourists over 100 years. Nowadays, it has been unchangeably appreciated since, except the attractive nature, simple ways of life performed by local people, and cultural visiting locations are another charming factor of this island until it becomes **a paradise on the Gulf of Thailand**. Koh Samui has been a tourist destination and worldwide recognized. As a result, several hundred thousand Thai and foreign tourists have visited Koh Samui each year. (Table 1-1)

**Table 1-1 Guest Arrivals at Accommodation Establishments**

<b>Year</b>	<b>Thai</b>	<b>Foreigner</b>	<b>Total</b>
1998	95,451	637,759	733,210
1999	87,106	634,750	721,856
2000	85,030	644,096	729,126
2001	69,238	667,413	736,651
2001	70,322	684,467	754,789
2003 (Jan – July) = 9 month	69,100	470,813	539,913

Source: Koh Samui Tourism Coordinated Center: Tourism Authority of Thailand

The great number of tourists has generated an income in the amount of Baht 6,300 million per year. By this reason, Tourism Authority of Thailand has set up a working plan to be the guideline of proper physical development for Koh Samui. One of Thailand's most complete development plans has been prepared (TAT Periodical, May 1999); for example, the project for setting pontoons to conserve the corals around Koh Samui, the campaign project for conserving tourist attractions, the project for preparing the master plan for specific development of 3 communities for tourism e.g. Natorn Community, Chaweng Community, and Lamai Community, including the project for launching public relations regarding the tourism of Koh Samui under the slogan: "Appreciatively visit Koh Samui and preserve its environment."

Moreover, for readiness of tackling the to-be-happening environmental problems, Tourism Authority of Thailand has collaboration with World Travel & Tourism Council (WTTC), a central agency for the world-class tourism, to supervise the standard of environmental qualities on Koh Samui, and to advise steps of preservation to communities and entrepreneurs so that Koh Samui would be certified as "a tourist place with good standard for the world environment" or "Green Globe 21" by 2000 in compliance with the Agenda 21. Nevertheless, this project is not successful since it must be given up due to the lack of good cooperation from alliances.



Due to such failure of the project, Koh Samui becomes one of 172 decadent tourists places and its critical problems include environmental and scenic decline such as garbage, waste water, fresh water, destruction of corals, the trespass of public areas located on the mountains and beaches, filling and trespassing upon the sea for the hotel/ resort construction, etc. Even the tourists or entrepreneurs have not had the spirit to conserve the resources and environment. These problems have caused decline and damages until Koh Samui will not be able to provide services to tourists in future. However, the marketing plan for the year 2004 by Tourism Authority of Thailand aiming at being the tourism capital of Asia and targeting the best quality tourists still focuses on advertisements and public relations of Koh Samui to attract tourists and foreign currency. It was found that Koh Samui is still a main tourist attraction, whose major products cover **beaches, seashore, and golf course.**

As a result, the researcher is interested in studying on tourist opinions on tourist attraction environmental problems of Koh Samui because tourists are the most important factor of tourism and the main consumer group, who directly touch natural products. Tourist opinions are also the important information taken for further marketing planning. Therefore, the results of the study not only help us learn tourist opinions about how severe the existing environmental problems are, but they are also another way of prevention and solution of such problems so that they are not more severe. Most importantly, it is expected that the benefit from this study will be used as the basic information for further jointly looking for directions and measures of managing natural resources and environment with the best efficiency and proficiency, as well as marketing strategies that are appropriate to tourist attractions so that Koh Samui is the quality location where is suitable to be the global tourist city further.

## 1.2 Objectives of the Study

1. To study levels of tourist opinions on tourist attraction environmental problems of Koh Samui, Surat Thani Province.

2. To study factors affecting tourist opinions on tourist attraction environmental problems of Koh Samui, Surat Thani Province.

3. To study problems and solutions proposed by tourists concerning the environment of Koh Samui, Surat Thani Province.

### 1.3 Scope of the Study

This research emphasizes the opinions of tourists on tourist attraction environmental problems of Koh Samui, Surat Thani Province. Both Thais and foreigners, 18 years old up, who spend a single, a group or a group tour visit, and stay at Koh Samui at least 1 night.

### 1.4 Definition of Terms

**Opinion** means expression of opinion, belief, and decision on considering anything or any issue made on the basis of knowledge, perception, and experience whereas the surroundings could help for expressing his/her opinion, which may be accepted or rejected by other persons.

**Tourists** mean persons, both Thais and foreigners, 18 years old up, who spent a single, a group or a group tour visit and stay at Koh Samui at least 1 night with the purpose of relaxing, studying nature, observing the work operation, studying arts and culture/tradition and ways of life of local people in communities, and performing religious and business activities.

**Tourism Environmental Problems** refer to problems arising out to environment, both living and non-living things being in tourist attractions of Koh Samui that influence or affect, directly and indirectly, to the body and mind of tourists. For this research, the following aspects of the tourism environmental problems are examined:

1. Physical problems such as the scenic attractiveness, geographical condition and tourist resources, city mapping and accommodations.
2. Infrastructure problems such as electricity, tapped water, roads, transportation, clinics, telecommunication, and other public utilities such as direction signs, documents/brochures informing of tourist attractions, restrooms and trash bins.
3. Environmental problems such as garbage and rubbish, condition of seawater, waterfalls, water in rivers, noise and air pollution.
4. Tourists' safety problems such as no-readiness or lack of standard system to save the locations, danger to life and asset of tourists.
5. Activities in the tourist attraction problems such as types of activity and tourist attractions are not consistent or contrary and not interesting, or the amount of activities in the tourist attractions cannot respond to the tourists' demand.

**Nationality** means the country where the informants have been staying to earn for living or permanently live. For this research, the nationality will be divided as Thai and foreign.

**Duration of staying over night** means a number of days spent on visiting at Koh Samui.

**Main purpose of traveling** means the aim driving the tourists to visit Koh Samui, which consists of relaxing, studying nature/observing the work operation, studying arts, culture/tradition and ways of life of communities, religious and business activities.

**Number of visiting** means frequency of visiting Koh Samui for each tourist.

**Forms of visiting** means characteristics of visiting Koh Samui that includes single visiting friend group, family/relatives group, group tour, and organizational officer group.

**Placing environmental value** means expression of tourists in respect of feelings, attention, interest, or impression on natural environment.

**Message perception on conservation of natural tourist attractions** mean types and frequency of receiving message from various mass media such as television, radio, newspaper, and discussion with other persons regarding the conservation of nature and environment, including the conservation of natural tourist attractions at Koh Samui district.

**Knowledge on conservation of natural tourist attractions** mean learning, information, fact, and other details from searching and observing conservation of nature and environment, as well as conservation of natural tourist attractions at Koh Samui district.

## 1.5 Variables of the Study

### 1. Independent Variables:

- Gender
- Nationality
- Age
- Occupation
- Education
- Average income
- Duration of staying over night
- Main purpose of traveling
- Number of visiting
- Forms of visiting
- Placing environmental value
- Message perception on conservation of natural

tourist attractions

- Knowledge on the conservation of natural tourist attractions

## **2. Dependent Variables:**

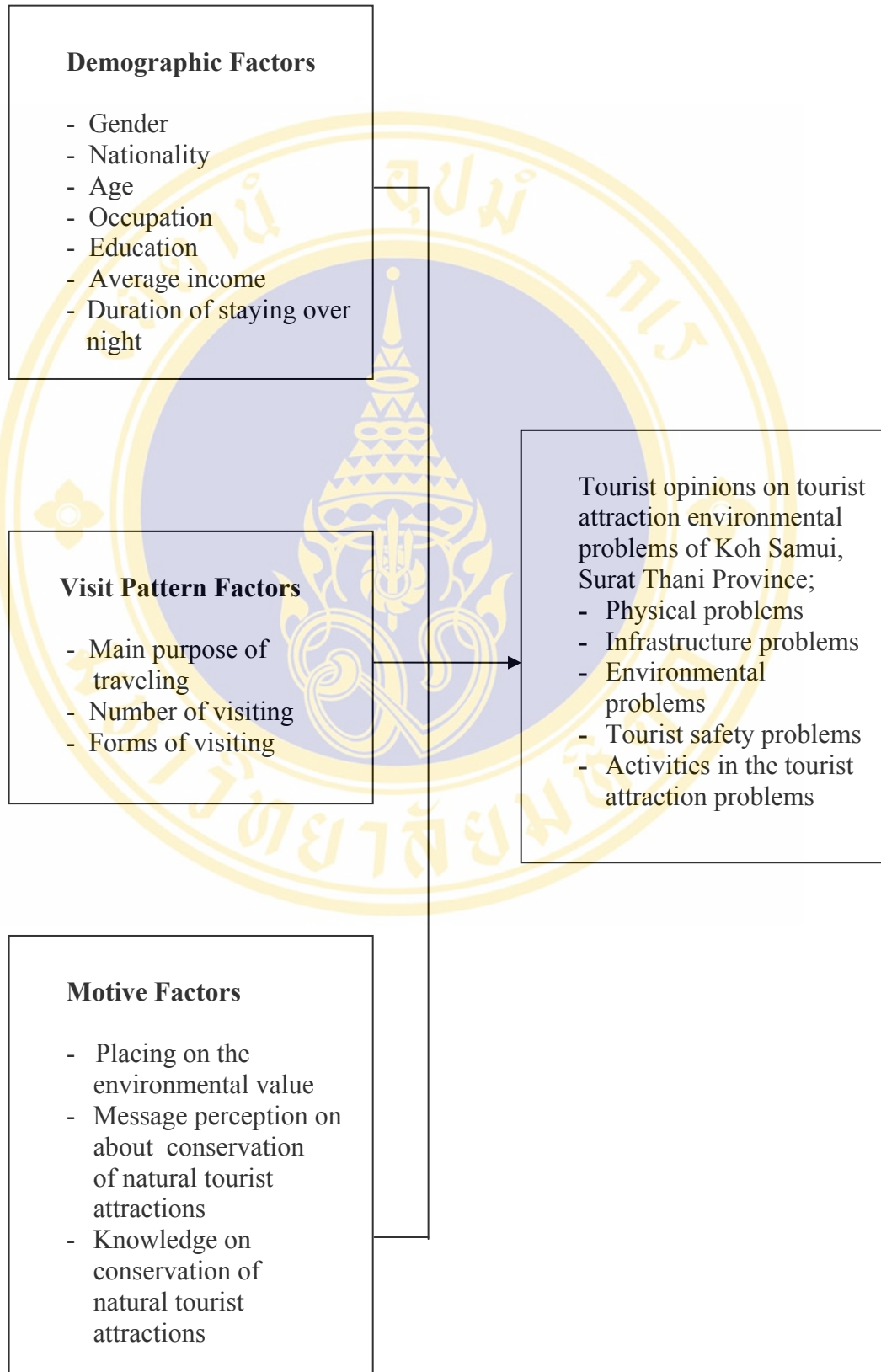
The tourist opinions on tourist attraction environmental problems are examined as followings:

- Physical problems such as scenic attractiveness, geographical condition and tourist resources, city mapping, and accommodations.
- Infrastructure problems such as electricity, tapped water, roads, transportation, clinics, telecommunications, and other public utilities such as direction signs, document/brochures informing of tourist attractions, restrooms, and trash bins.
- Environmental problems such as garbage and rubbish, condition of seawater, waterfalls, water in the rivers, noise and air pollution.
- Tourist safety problems such as no-readiness or lack of standard system to save the locations, danger to life and asset of tourists.
- Activities in tourist attraction problems such as types of activities and tourist attractions are not consistent or contrary and not interesting, or the amount of activities in the tourist attractions cannot respond to the tourists' demand.

### 1.6 Variables and Levels of Measurement

Variable	Level of Measurement
<b>Independent Variables:</b>	
- Gender	Nominal
- Nationality	Nominal
- Age	Interval, Nominal
- Occupation	Nominal
- Education	Nominal
- Average income	Interval, Nominal
- Duration of staying over night	Interval, Nominal
- Main purpose of traveling	Nominal
- Number of visiting	Interval, Nominal
- Forms of visiting	Interval, Nominal
- Placing to environmental value	Interval, Nominal
- Message perception on conservation of natural tourist attractions	Interval, Nominal
- Knowledge on conservation of natural tourist attractions	Interval, Nominal
<b>Dependent Variables:</b>	
- Tourist opinions on tourist attraction environmental problems of Koh Samui, Surat Thani Province.	Interval

### 1.7 Conceptual Framework



## 1.8 Hypothesis

In this study, hypotheses are put forward as follows:

1. The tourist opinions on tourist attraction environmental problems of Koh Samui, Surat Thani Province are at the moderate level.

2. Demographic factors make difference to the tourist opinions on tourist attraction environmental problems of Koh Samui as follow:

2.1 Tourists with different gender cause different opinions on tourist attraction environmental problems of Koh Samui.

2.2 Tourists with different nationality cause different opinions on tourist attraction environmental problems of Koh Samui.

2.3 Tourists with different age cause different opinions on tourist attraction environmental problems of Koh Samui.

2.4 Tourists with different occupation cause different opinions on tourist attraction environmental problems of Koh Samui.

2.5 Tourists with different education cause different opinions on tourist attraction environmental problems of Koh Samui.

2.6 Tourists with different average income cause different opinions on tourist attraction environmental problems of Koh Samui.

2.7 Tourists with different duration of staying over night cause different opinions on tourist attraction environmental problems of Koh Samui.

3. Visit pattern factors make difference to the opinions on tourist attraction environmental problems of Koh Samui as follow:

3.1 Tourists with different main purpose of traveling cause different opinions on tourist attraction environmental problems of Koh Samui.

3.2 Tourists with different number of visiting cause different opinions on tourist attraction environmental problems of Koh Samui.

3.3 Tourists with different forms of visiting cause different opinions on tourist attraction environmental problems of Koh Samui.



4. Motive factors make difference to the tourist opinions on tourist attraction environmental problems of Koh Samui as follow:

4.1 Tourists with different placing on environmental value cause different opinions on tourist attraction environmental problems of Koh Samui.

4.2 Tourists with different message perception on conservation of natural tourist attractions cause different opinions on tourist attraction environmental problems of Koh Samui.

4.3 Tourists with different knowledge on conservation of natural tourist attractions cause different opinions on tourist attraction environmental problems of Koh Samui.

### **1.9 Contribution of the Study**

1. Various tourist opinions on tourist attraction environmental problems of Koh Samui, Surat Thani Province are presented to the public.

2. The factors affecting tourist opinions on tourist attraction environmental problems of Koh Samui, Surat Thani Province are presented to the public.

3. The problems and recommendations proposed by tourists concerning the tourist attraction environments of Koh Samui, Surat Thani Province are presented to the public.

4. Research information can be further used for management and establishment of policies and guidelines to manage the tourist attraction environment for sustainable development on Koh Samui and other islands.

## **CHAPTER 2**

### **LITERATURE REVIEW**

This chapter includes concepts, principles, theories, and related research used as the main concept of studying and explanation of contents and events found in this study. The concepts are as follow:

- 2.1 Concept of opinion
- 2.2 Concept of tourism
- 2.3 Principles of tourism management
- 2.4 Concept of environment
- 2.5 Related research
- 2.6 Variables Related Research

#### **2.1 Concept of Opinion**

##### **2.1.1 Definitions of Opinion**

Good Carter V (1973: 339) gave the meaning of opinion in the educational dictionary that the opinion means thought, impression, belief, decision on anything that cannot be justified whether it is right or wrong.

Nunnally (1959: 285-286) expressed his view that both opinion and attitude are presentation of opinion concerning us, and the opinion is also used in the judgment and knowledge, whereas the attitude involves more feeling and preference. It can be concluded that opinion is used more than attitude.

Hilgard (1962: 626) defined the opinion as consideration for decision or belief that will lead to speculation or interpretation of behaviors or events arising out.

Horlan & Kelly (referred in Sopha Choopikulchai, 1978) stated that opinion means something cannot be expected or speculated, but it is just a favor. This opinion may be used in the word form.

Hernby, Gatenby and Wakefield (1968: 682) provided the meaning of opinion that it is a belief or judgment, which is not actual knowledge or opinion about something that may come true.

Engle & Snellgrove (1969: 593) offered the definition of opinion as expression of moral intention in word form, and provision of opinion based on original knowledge.

Kolasa (1969: 386) stated the meaning of opinion that it is an individual expression from considering a fact or assessing anything from its circumstances, or the opinion is response to stimulation influenced by predisposition. Such predisposition encourages each individual to follow, which may be called attitude structure. Therefore, attitude is the base of opinion, and influences on expression. So, attitude is an individual's predisposition expressed concerning other persons, locations, and environment in positive and negative ways.

Kolesnik (1970: 296) stated the meaning of opinion that it is the interpretation or form of an opinion based upon rising facts judged by an individual that it is right, but may be disagreed by some persons. Narrow opinion and particular opinion, with its existence for a short period and called opinion, is a kind of opinion that is not based on witness, insufficient evidences for investigations, few understanding on feelings, and arising easily but fading rapidly.

Best (1977: 169) indicated that opinion means an expression of belief and emotion of an individual by speaking.

Duncan (1971: 135) stated that opinion means an individual's belief or decision that may not be accepted in each period of time. This opinion cannot examine the knowledge or reality of an individual's belief. It is accepted that general people may have different opinions.

Jirawat Wongsawadiwat (2538) concluded the meanings of opinion proposed by:

- Oskamp (1977: 12-13); opinion is close to belief in respect of specification of scope of contents. Then, both opinion and belief consist of cognition more than affective emotion;
- Mc Guire (1960); opinion involves more judgment than facts; and
- Child (1965); opinion is the overt expression of an overt attitude inside persons shown by speaking and writing.

Webster's New World Dictionary (196: 1254) defined an opinion as evaluation, expression of emotion or speculation about quality or value of any matter by a person. To accept that particular opinion, there must be consideration or argument to find out the conclusion of those different points of view and belief.

The Sociological Dictionary of the Royal Thai Academy (2524: 246) offered the definition of opinion that opinion is considered as true from using a person's head although that opinion may not always be verified.

Prasart Luksila (2529: 398-399) concluded that people's resolution or opinion could come from their daily meetings. However, we have limited social background that affects our response to events, and forms the opinion towards that particular event.

Patcharee Worakawin (2526: 78) referred the meaning of opinion as a part of attitude, which covers feeling, thinking, and belief to favorable or unfavorable environment.

Sucha Chan-aim (2527: 8) referred the meaning of opinion that it is the feeling of each person that is not profound as attitude. People have different opinion and opinion is a part of attitude.

According to the above statement, it could be concluded that opinion is presentation of thinking, belief, and decision on considering anything or any issues based upon knowledge, perception, and experience while the surroundings could help to present that opinion. Each individual's opinion may be accepted or rejected.

### **2.1.2 Classification of Opinion**

Rammeer (1954: 6-7) stated that there are two types of opinion as follows:

1. Opinion in the extremeness aspects based on learning and experience, that its track can be seen. The positive extremeness includes love to craziness, and the negative extremeness covers the disgust. It is difficult to change such extreme opinions.

2. Opinion from cognitive contents – Opinion towards anything depends on knowledge and comprehension to that matter such as the positive perception: liking, acceptance, agreement; and the negative perception: dislike, disgust, and disagreement, etc.

### **2.1.3 Factors Influencing to Opinion**

Foster (1952: 119) concluded that opinion is formed by two following causes:

1. Individual's experience to objects, persons, groups, stories, or events: the opinions of each person have been formed by his/her seeing and familiarity that

seem to be his/her direct experience, and listening, looking photos, or reading that shall be his/her indirect experience if he/she is not in that particular event.

2. Moral principle and judgment on moral principle: since each group of people has its own moral principles and ways to judge the moral principles, so each group has different opinions about each matter.

Oskamp (1977: 119-133) drew a conclusion about factors that enhance the forming of opinion as follows:

1. Breed and human body that include a person's body organs responding to the abnormalities of his/her body. The disorder of sense organs could shape bad thinking regarding other persons.

2. Individual's direct experiences, that is, an event he/she meets, joins, or sees by himself/herself will root in his/her mind, which will differently form his/her opinion about that event.

3. Influence of guardians, that is, when a person is still young, the guardian(s) who is/are close to him/her and offer(s) him/her a great amount of information will also influence his/her behaviors or opinions.

4. Group attitude and opinion, that is, when a person has grown up, he/she will have his/her own group and society, so, different opinions of groups of friends, references, or educating and training by schools, and working divisions are able to form that person's opinions.

5. Mass media that include many kinds of media taking roles in our daily life, which consist of radio, television, newspaper, magazine. These media are another factor affecting a person's opinion.

#### **2.1.4 Opinion Survey**

Best (1977: 171) advised that the simplest way to tell each person's opinion can be done by showing percentage of answer responding to each question. Then, we could see what that opinion looks like, whether we could follow that opinion, or the

executives could consider whether that surveyed opinion is appropriate or inappropriate to proceed or give up.

Morgan & King (1971: 516) suggested that surveying opinions should be conducted by face-to-face means, which is better than reading and answering questions by writing. Both Morgan and King agreed that interviewing or asking questions is more efficient than answering the questionnaire by writing. If the questionnaire is used to survey opinions, the surveyors must advise the respondents to indicate their agreements or disagreements to those specified questions.

Such questionnaire has been favorably made in compliance with the Likert Scale that divides opinions into five levels: strongly agree, agree, not sure, disagree, and strongly disagree (Suchart Prasith-rathsint, 2001: 208-209).

For this study, both two concepts are mixed together and are used to construct the instruments to measure the tourist opinions on tourist attraction environmental problems, as well as to outline the concept that knowledge and understanding certainly affect the opinion (the questionnaire was constructed as per the guidelines of Likert Scales, and scoring is subject to statements whether they are positive or negative).

## **2.2 Concept of Tourism**

### **2.2.1 Definitions of Tourism**

Thailand Institute of Scientific and Technological Research (1997: 5) defines tourism as a form of recreation done during leisure time that must deal with traveling from one place, that means the habitation, to another place, that is deemed a tourist attraction, in order to change a person's surroundings and environment. Such

change is motivated by his/her desires in respect of taking photographs, culture, interaction, and status or esteem.

McIntosh and Goeldner (1984: 54) specified the four different points of tourism, which could be identified and must be learned before the definition of tourism is given, as follows:

1. Tourists
2. Businesses relating to provision of goods and services for tourists
3. Government of host countries or communities
4. House owners or owners of tourist attractions

Therefore, the definition of tourism, defined by McIntosh and Goeldner, is the overall outcome of events and relationship that come from the interaction between tourists and businesses/services. The host countries and local people living in those tourist attractions get involved in activities or processes of attracting or offering a warm welcome to tourists or visitors.

In conclusion, the tourism means the willing traveling from a person's habitation or accommodation to other location(s) for relaxing and enjoying various forms of tourist activities; for example, visiting attractive locations, shopping, or changing old surroundings and environments and such actions are not performed for any income.

### **2.2.2 Definitions of Tourist**

Tui Chumsai, M.L. (1984: 49) defined the definition of tourist as temporary visitors staying in a visited country at least 24 hours and be encouraged to visit for spending their leisure time for recreation, relaxation, health, education, religion, sport, business management, family treats, undertaking the assignments, and meetings.



Nikom Jarumanee (1992: 85) defined tourists as any visitors staying in any visited country not less than 2 hours with the purpose of various actions in relation to seminar, family, friends, health, holiday, work performance, sports, visiting relatives, religion, education, and entertainment.

Thailand Institute of Scientific and Technological Research (1997: 2-9) gave the meaning of tourist as the traveler visiting a place with many purposes that do not deal with regular work or education. Then, that visited location is not his/her homeland where he/she regularly works or studies in. This traveler must stay there at least 1 night and travels for the purposes of spending his/her leisure time (recreation, relaxation during the holidays, health care, studying-learning, religion, and sports), doing businesses, visiting relatives, performing work, and attending meetings.

Pursuant to the definitions indicated above, it could be concluded that tourist is a person traveling to any area and intends not to stay or live permanently, but stays there at least 1 night with aims at relaxing, studying nature, observing the work, studying art and culture/tradition and ways of local life, and doing religious and business activities.

### **2.2.3 Components of Traveling for Tourism**

Leiper (referred in Nipol Chuamuangparn, 1999: 60) stated the connection of tourism and traveling that they must involve:

1. Tourist generating regions that cover permanent accommodations for tourists where those regions are both the starting and returning sites of traveling for tourism.
2. Tourist destination regions that cover attractive locations to attract tourists to visit and stay for a short period, and the regions where tourists have never seen or stayed before.
3. Transit routes that link both Item 1 and 2 above.

The tourism or tourist industry is a business or service concerning all facilities relating to tourists, which must consist of two tourist parts: tourist main components; and tourist supporting components as follows (Suwat Juthaporn, Basic Knowledge concerning Tourism Industry, 2001):

### **Tourist Main Components Including**

1. Tourists that are the most essential factor of tourism. Examining for the comprehension of visiting behaviors, attitudes, basic characteristics of tourists, therefore, are extremely essential for strategic marketing planning.

2. Tourist resources including tourist attractions, activities, culture and tradition reflecting the unique local civilizations that are able to attract tourists' interest.

3. Businesses in tourism industry including businesses relating to the production of products and services to directly and indirectly respond to tourists' demands. Therefore, businesses in the tourism industry cover the following 6 sections:

1. Accommodation business
2. Guiding business
3. Food and beverage business
4. Goods and souvenir business
5. Transport and communication business
6. Recreation business

**Important factors supporting the main components of tourism** are as follows:

1. Tourist information and news aiming at improving and promoting the tourism to any persons dealing with the tourism, including to local people who have provided tourist services and to tourists who are offered such tourist services. The presentation of information and news can be made through internets, posters, brochures, and newsletters etc.

2. Safety and facilities to go downtown are another main factors of decision of selecting tourist attractions by tourists. If such tourist attractions are at wars, in protests, terrorist attacks, bomb attacks, or their criminal statistics are high, those tourist attractions will not be able to attract tourists' interest, so all related persons should heavily focus on this factor.

In addition, the facilities for going downtown are another factor to impress tourists from the first step they enter that country. Important units acting as the first entrance to make tourists feel warm welcome of that country include the international airports, the immigration offices, and the Department of Customs.

3. Infrastructure for consumption is a component supporting good tourism and encouraging speed and convenience of doing tourism businesses. If any tourist attractions lack good supporting infrastructure, that place will not be able to attract the interest of investors and tourists. However, Main Infrastructure To Support Tourism Covers:

3.1 Electricity system that must be sufficient and operating well does not cause any damage or danger to users. Or in case that the demands of electricity grow so high during the tourist seasons for any attractive places visited by a great number of tourists, the electricity must be sufficiently reserved for them.

3.2 Pipeline system that must be clean, sanitary, and sufficient to support tourists. Demands for pipeline water will be different in each area and depends on the purposes of use.

3.3 Communication system that must be convenient, rapid, and there are enough service units. Although some groups of tourist may require running away from communicating with other persons during their visits, the communication system is still necessary, particularly in the emergency cases.

3.4 Public health system that must be modern, rapid, and safe, and the number of public health centers and local hospitals close to tourist attractions are sufficient, and the health caring costs are also fair. Moreover, in the tourist attractions, there should be initial health care units to serve tourists with some medicine to be consistent with activities and characteristics of tourists.

3.5 Public transportation system that is essential for tourists' travels. In the perfect attractive areas, all transportation stations should be connected with each other to offer convenience to tourists. Connecting the network for public transportation should be constructed in four ways: air, rail, road, and water so that the tourists can easily and promptly move from one to another place.

4. Support by governmental and private agencies. The development of tourism can be made by good collaboration of all parties, including governmental and private agencies that also involve organizations of people or non-governmental organizations. In addition, since the tourist industry is formed by the combination of various goods and services, related organizations, thus, are in different fields of work, and absolutely and clearly splitting the responsibilities of each matter of each organization is so difficult.

Nopparat Surarurk (referred in Charuwan Saengjun, 2002: 13) stated that components of the tourism industry are tourist resources, which can be separated into three types:

Type 1 – Natural tourist resources consisting of physical features of nature that are attractive or interesting to be visited such as mountains, forests, fountains, seashores, and islands, etc.

Type 2 – Historical, ancient, and religious resources, which cover all things intently created by human for their own benefit. Such resources are the heritage of the past but set up for the present that could encourage the tourism such as palaces, religious buildings, relics, and ancient remains.

Type 3 – Cultural, traditional, and activity tourist resources that are people's forms of living in society, including conduct and practice performed and transferred from generation to generation and other activities that encourage the tourism such as Thai ways of life along canals, floating markets, floating houses, tribal villages, festivals and traditional fairs.

Moreover, Thailand Institute of Scientific and Technological Research (1997: 2-7) described about the tourist components that the tourism is the social and economical

process consisting of three main parts: tourism resources, tourism services, and tourism markets or tourists. Each component also has connecting sub-components that are causes and results with each other. Different forms of tourism, hence, are subject to the difference of sub-components and arising relationship.

Tourist is a part of tourism marketing and to be an important component and factor for tourism development. Tourists will express their demands, wishes to travel from one to another place, to participate in the recreation activities and other activities.

#### **2.2.4 Tourism Motivation**

McIntosh and Goeldner (referred in Naowarat Plainoi et al., 1995: 9) indicated that the tourism motivation means anything that motivates tourists to travel in order to respond to their desires. Normally, traveling or not traveling of tourists will depend on 4 important motivations as follows:

1. Physical motivation such as physical relaxation, playing sports, recreation on beaches, relaxation by entertainment and other motivations relating to health care.
2. Cultural motivation such as wishes to know other persons, e.g. stories of music, art, dramatic performance, and religion etc.
3. Interpersonal motivation such as wishes to know new persons.
4. Status and prestige motivation such as desires to improve himself/herself, and to show him/her own importance, e.g. traveling for businesses, meetings, and education.

Lloyd Hudman (referred in Wittaya Kiatiwat, 2000: 18) said that push and pull factors affecting the tourism motivation are:

1. Push factor such as health and sanitation, curiousness, satisfaction of traveling and impression of anything being seen or met, religion, business and academe, friends, relatives, and esteem.

2. Pull factor such as art, culture, and tradition (e.g. traditional festivals, art-handicrafts-language), physical features (e.g. climate, scenery), biological features (e.g. wildlife), and entertainment places.

### **2.2.5 Types of Tourist Attraction**

Tourist attractions can be separated into three main types as follows:

1. Natural attractions or natural surroundings consisting of climate, attractive scenery, and wildlife. It is the most successful to attract tourists, but must be carefully maintained. Tourists who are blind to situations may destroy these attractions.
2. Manufactured attractions that are opposite to natural attraction. Big cities are able to attract tourists to visit their historical buildings and architecture, religious places, places constructed by the governments, palaces, ancient buildings that have outstanding historical background.
3. Cultural and ways of life attractions that are the tourism focusing on developing the people wisdom, being creative, not deteriorating environment, not being cultural trading, and people's ways of life are important for cultural tourists. They will be studying history and background of races, culture of thought, belief of former generations. Moreover, a great amount of tourist groups have been interested in the glories of ancient civilization, culture and ways of life of minor groups, including rites and celebrations, musical shows, folk songs, dances, plays, and handicrafts.

### **2.2.6 Relationship of Community Tourism and Environment**

When the concept of long-lasting tourism development arises out, it is likely that the interest in environmental impacts caused by human activities has been increasing. Consequently, the impacts of traveling and tourism to environment were

considered. Though the tourism is able to provide both economical and social profit, the tourist activities may also cause huge damages to environment.

The impacts on environment caused by tourism may be more or less depending on volume of activities relating to environment in tourist areas, and nature of activities. However, we cannot avoid environmental impacts caused by tourism, but we are able to minimize the serious impacts by employing the long-lasting tourist principles and concepts, that is, the tourism with good responsibilities to environment.

In any area where the tourist industry is set up, the tourism will give both good and bad influences to tourism resources or to surroundings of community area. Good and bad influences can be separated into 2 main issues as follows:

1. Tourism without good planning and control will deteriorate the environmental conditions, make some specific features of community or area such as geographical features, architecture and art and culture being reduced or lost. Tourism makes communities dirty and causes some strangeness, and takes foreign culture to community where it has its own unique characteristics. Although we have learnt and understood that the development of tourism can cause bad impacts, such bad impacts can be avoided not to have so serious outcome.

2. Tourism under good planning and control will help to conserve environment. This can be done by promoting good tourist behaviors to public, encouraging local people and related officials to pay attention and realize the value of good surroundings in tourist area, including setting up the measures of managing, protecting, and increasing the value of those surroundings by using the tourist income. Care and maintenance of surroundings will help to increase more income to that area or community.

Karuna Dachathiwongse Na Aydhya (1994: 15) stated that important features of eco-tourism must include:

1. Tourism that mainly focuses on natural environment and/or culture, and they are kept unchanged, pure, and far from the growth of city society.
2. Tourism that is also responsible for society, environment, nature, and wildlife.
3. Tourism that controls the number of tourists for the balance of capabilities in serving tourists in each area and tourists.
4. Tourism that emphasizes on local people participation on activities, and gains the most economical return.

### **2.2.7 Policies for Tourism Development and Promotion B.E. 2546-2549**

Pursuant to the establishment of Ministry of Tourism and Sports in compliance with the bureaucracy revolution that must depend on the fifth National Administrative Act B.E. 2545 and The Restructuring of Government Agencies Act B.E. 2545 concerning the transfer of management, power and duties, as well as the revision of provisions to be complied with the transfer of duties of governmental units. Consequently, Tourism Authority of Thailand (TAT) has to transfer its work in relation to development of tourist attractions, development of tourism services and the registration of tourist businesses to Ministry of Tourism and Sports. By the way, the Tourist Business and Guide Register Office still performs its duties in accordance with The Act of Tourism Business and Guide B.E. 2535 until the Ministry of Tourism and Sports receives such transfer for further undertaking after October 2004.

After 2003, TAT has modified the state enterprise plan to be complied with the establishment of the Ministry of Tourism and Sports. Its roles were adjusted to be an organization that will mainly focus on managing tourism marketing of Thailand. Its roles also include:

1. To promote and use tourism as an important tool to solve an economical problems by creating more work for public and increasing income of the country. Another role is to use tourism as a key factor to develop quality of life of people in all regions of the country pursuant to the governmental policies.



2. To promote and develop the active marketing operations by increasing new markets and specific market groups to attract quality foreign tourists to visit Thailand, and to encourage Thai tourists to travel more around the country, as well as to clearly position Thailand's selling points.

3. To promote the collaboration by all domestic and international parties for promotion and development of tourism markets. By this opportunity, they will join hands to tackle tourism obstacles so that it is Thailand's another step to be the tourism center in the Asian region.

4. To focus on improving organization, management system, and personnel to have skills and capabilities in respect of tourism markets so that the TAT is the driving-force organization with the performance proficiency and competitive potential in international level under good governance principles, as well as to develop the strength of organization to take more academic roles and marketing knowledge.

5. To speed up the information and technology system for E-tourism to support businesses on internet network system and to undertake electronic commerce, including to undertake marketing system by using information technology system equipped with mechanism of control and prevention to stop to-be-arising problems.

### **2.2.8 Image and Process of Tourist Attractions Selection**

Goodall & Ashworth indicated that the image in tourists' mind and anyone who is likely to have a tourist travel heavily affect selection of tourist attractions. Since, tourists and anyone who is likely to have a tourist travel will consider all related matters to evaluate or score the image of tourist attractions by using preferential image and their own experiences such as good/bad, like/dislike, attractive/not attractive, and peaceful/chaos, etc. Then, they will compare the image of tourist attractions from their evaluative or applausive image. The tourists or anyone who is likely to have a tourist travel may just think of specific or outstanding qualification of that tourist attraction, which is its image. However, in fact, the tourists or anyone who is likely to have a tourist travel may not separate their perception, and may not divide its image concerning tourism resources from qualification of that tourist attraction. For

example, the tourists or anyone who is likely to have a tourist travel admire sunshine, beaches, and seashores. Then, the tourism resources are beaches, sunshine, deep blue sea, and water sports, etc., which all are the qualification to build the image of that tourist attraction.

The tourist attractions that are not in the mind of tourists or anyone who is likely to have a tourist travel will have never been selected. In contrast, any tourist attraction that impresses the tourists or anyone who is likely to have a tourist travel, good image of that tourist attraction will pop up to be selected, appropriate image, hence, becomes an important affecter in the process of selecting tourist attractions by tourists or anyone who is likely to have a tourist travel except other components that include both push and pull motivations as the energizers of demand and filterers of demand; for example, economical factors (e.g. income), social factors (e.g. moral value, culture, and groups of friends), and psychological factors (e.g. perception of risks, personality, and attitude, as well as roles of the family that influence an individual's decision, especially determines the living principles and tourist travels (referred in Rungthip Wongpathikarn, 2542).

## **2.3 Principles of Tourism Management**

### **2.3.1 Definitions of Tourism Management**

Boonlert Chittungwattana (1999: 75) defined tourism management as planning for tourism and undertaking according to such planning under establishment of an organization for proper personnel management, administration, and control to be complied with the determined plan that must be evaluated as well.

Missara Samart (referred in Jongrak Intayond, 2002: 26) defined participation in management and administration of a tourism community as a process in which various groups of people, clubs, associations, foundations, and volunteer organizations in a community participating to undertake any matters to manage and

administrate that tourism community so that the goal of determined plans is reached with joint responsibility and relationship.

### 2.3.2 Concepts of Tourism Management Principle

Tourism is an important economical activity that widely generates income to each community. But, tourism must consist of appropriate tourism management principles. Prof. M. Adhikary (referred in Komsan Vararith, 2002: 19) proposed the tourism management in 7-S models that can be modified for the eco-tourism as follows:

- 1) **Strategy** means the strategies reflecting combination of objectives, sequence of importance, controls, and scope of activities.
- 2) **Structure** means the organizational structure relating to ordering sequence and proper work allocation.
- 3) **System** means tourism management system that covers systems of information management, operations, financial operations, human resource management, and marketing management.
- 4) **Staff** means personnel who will be providing services to tourists, whom must be carefully recruited, and they are willingly and sincerely bound to their responsible work, and are loyal to provide such services.
- 5) **Skill** means expertise that will bridge to work proficiency. The experience must consist of knowledge, skill, and work attitude.
- 6) **Style** means combination between staff and skill since each person has different working forms. Normally, style can be separated into two groups: top-down style; and bottom-up style.
- 7) **Share** means distribution and exchange.

The Project on Examining the Management of Human and Environment, and the Institute of Damrong Rajanupab (1998) gave the meaning of tourism management that “tourism management is the action with targets to be complied with proper principles, theories, and concepts. Moreover, actual circumstances and good

limitation, as well as the determined scope of concepts must be realized, otherwise the tourism operations will be out of direction and meet the failure.”

Potchana Suansri (referred in Jongrak Intrayond, 2002: 26) stated that people in a community have to participate in determining the tourism directions and tourism management by themselves. Roles of project on traveling for life and nature are the bridges of good understanding between tourists and community. Visitors arriving that community should be told about its history, tourism forms, and practice when staying in the community. At the mean time, there should be discussion with villagers about the targets of this activity, which will be different in each area. In some communities, tourism is understood as the distribution of ways of life, culture, and community conservation of natural resources. But, other communities understand that except distribution, tourism may be an activity that generates income for community and people living there. People should cooperate to consider good and bad effects and prevention measures, and to search for attractions of that community, which means attractive natural resources and interesting cultural ways of life, activities in which can be participated by tourists, local people's cooperation to set up management system, programs, allocate roles and responsibilities, share appropriate returns, and to have transparent examination.

Missara Samart (referred in Jongrak Intayond, 2002: 27) indicated that the guideline of tourism management for conserving ecological system covers management of tourist areas, meaning indications, knowledge services, promotion of accommodation standards, tourist services, encouraging local people in participating and preventing cultural effects. If the activities are appropriate and consistent with community's needs, those activities will be further developed easily. The villagers must be invited to participate in management system whereas allocation of profit must be transparent, fair, and clear. The operators and villagers have to analyze problems together. The tourism management usually has important obstacles and limitation in respect of budget limitation, personnel, cooperation, scope of power and duties for the issuance of laws and obligations.

Wanna Wongwanich (1996: 64-65) also mentioned two main concepts concerning management of natural resources in tourist areas as follows:

1. Provision of service and convenience, as well as knowledge to tourists.
2. Conservation of natural resources, and environment of that area so that they exist everlasting.

Moreover, in tourism management, carrying capacity of each tourism area must be realized:

- a. Physical carrying capacity means condition or feature of area suitable to be tourist attraction.
- b. Social carrying capacity means capacities of a tourist attraction to offer convenience to tourists or the highest capacities of a tourist attraction to provide services to tourists. Generally, beaches will have higher capacities to serve tourists than national parks.
- c. Ecological carrying capacity means capacities of natural surroundings of that tourist area or neighboring area to serve tourism businesses.

By this, each natural tourist attraction will have different management and techniques pursuant to service capacities of each area. The management ways include:

1. Distributing a number of tourists so that tourist does not cluster too much in any area, which will reduce impacts of using the resources of that area. The distribution can be made by:
  - 1.1 Breaking tourist attractions into small sections such as scenery sight views, etc.
  - 1.2 Charging an entrance fees for visiting that tourist attraction.
2. Developing tourist attractions by minimizing impacts to natural resources and environment such as constructing roads to connect important sites in the park areas so that their scenery is not deteriorated.

3. Arranging extra activities for tourists' joy and pleasure, while they have knowledge and good understanding on natural resources that will lead to their watchful care and attention to resources in that area. Extra activities are:

- Outdoor lectures
- Setting up service centers for tourists
- Organizing various types of exhibition
- Taking tourists to many view sites and have some lecture for them
- Showing slides and giving lecture
- Making signs and cautions

Moreover, the guideline of usages and obligations may be set up. This may include the inspection of tourist attractions, and the issuance of law to punish anyone who violates any obligation in order to protect the natural resources in that area.

Pakdee Rattanpol (referred in Jongrak Intayond, 2002: 29) explained that participation between government, local areas, communities, and private sectors for the current and future directions should be done in the way that government supports local areas, communities and private sectors to manage by themselves under the joint objective: long-lasting development with four supporting reasons:

1. In accordance with the provisions of the Constitution concerning participation by public in conservation of natural resources and environment.
2. To create joint responsibilities and feeling of possession to resources in the tourist attractions of local areas and communities.
3. In accordance with specification and guideline of decentralizing power of central and regional administrations to local areas in respect of management, budgeting, and finance, which will help generate sufficient income for local areas to maintain and develop tourist attractions in local areas and communities.
4. Pursuant to the facts that local people will love and have watchful care for their tourist resources.

Participation in tourism management consists of:

- Setting up information service centers
- Collecting tourist service fees
- Arranging local service vehicles to guide tourists
- Caring cleanness and providing toilets and car parks
- Making signs stating information of tourist attractions
- Distributing local and community products
- Supporting local budgets to develop and improve tourist attractions

Boonlert Chittungwattana (1999: 77) described that tourism facilities regarding tourist attraction signs will consist of signs to welcome tourists to tourist attractions, direction signs to tourist attractions, and map signs to show locations of tourist attractions. Designing tourist attraction signs must have the following important features:

1. To be standard signs in respect of size and graphic
2. To be signs in the proper size to be used in different area condition
3. To be signs containing proper letters and signs
4. To be signs made up in the universal style, but unique Thai style is still maintained
5. To be signs in the colorful design and their materials get along with nature and environment as much as possibly
6. To be signs that can be easily produced, built, installed, and in the determined budget

In order that tourism management is systematic and can reach the objectives, circumstances of tourism system must be taken into account. Such circumstances can be divided into 3 subjects as follows:

1. Tourism resources: consisting of tourist attractions, including other resources relating to tourist activities. Most tourism resources are physical condition of natural resources or resources manufactured by human, as well as culture of local communities.

2. Tourism services: services for tourism or activities done in each particular area.

3. Tourism marketing: it is demand of tourists, entrepreneurs, and people in an area, which also includes activities, forms, and tourist process arising out in the area.

In addition, The Project on Examining Management of Human and Environment, and Institute of Damrong Rajanupab (1998) proposed that tourism management principles must consist of:

1. Local communities that will be participating in determining potential for development of eco-tourism for tourist attractions in the related areas by considering places of activities, readiness, community demands, including participation in setting up the form of committee, operation responsibilities, and governmental support, etc.

2. Organizations in each area such as sub-district councils, sub-district administrative organizations, village headmen, village chiefs, and local leaders should take part in supporting work plans, projects, and eco-tourist activities, including supporting the operation of other people organizations.

3. Tourism business sector, local organizations, environmental organizations, and the State all have balance of duties to work together.

4. Local people must take part in making decision about many projects that will affect living of most people in the area.

## **2.4 Concept of Environment**

### **2.4.1 Definitions of Environment**

Bundit Chulasai (1985: 1-2) stated that although “environment state” is a new word and widely used in our society at present like “environment”,



“surroundings”, and “environmental condition”, these words are intently used to replace “environment”. Previously, “environment” many hint other meanings, but according to the global condition in the current century, its meaning has been changing pursuant to social condition. Sometimes, this word is strictly related to ‘pollution’.

Enhancement and Conservation of National Environmental Quality Act B.E. 2535 enacts that environment means all physical and biological matters staying around human that are both natural and created by human.

Her Royal Highness Princess Maha Chakri Sirindhorn (referred in Bundit Chulasai) defined the meaning of environment as condition around us that have influenced our living.

Nicholson (1957) (referred in Bundit Chulasai) gave the meaning of environment that it covers all things that may influence opportunity of life to survive and reproduce.

Milne (1957) (referred in Bundit Chulasai) proposed that environment means everything in the universe that affects lives’ demands.

The above definitions are consistent with definition of the “environmental state” defined by Environmental Research Institute Chulalongkorn University (ERIC) as the overall outcome of phenomena arising around us and influencing being of living.

Wanna Wongwanich (referred in Atib Srisakulchairak, 2000) gave the meaning of environment as everything, either living or not-living, around us. The environment can be classified into two types below:

- Natural environment: physical surroundings such as geographical features, geology, scenery, buildings, houses, and biological surroundings.

- Cultural environment that is the living forms of people in society, including practice and behaviors adhered and continuously transferred such as culture, tradition, ways of life, and religion etc.

Wimonsith Horayangkul (1983: 2) had a conclusion about environment that it is everything around human, which is an important factor to form characteristics of living, and it relates to human's quality living. The environment has continuously changed by human's action and natural power.

Kasem Chankhaew (1999: 3) concluded that environment is everything on earth, or it can be explained that environment may give either benefit or harm to human or other lives. The environment can be touched by our five sense organs, it may be or may not be resources, and may naturally rise out called natural environment, or may be made up by human.

Chatpol Songsoonthornwong (2000: 9-10) concluded that environment is all living and non-living things, which can be naturally arisen or constructed by human. The manufactured environment will consist of abstract and concrete things that are useful for human's living.

The above definitions can hint that surroundings or environment means everything around us, both living and non-living, naturally and manufactured by human, and such surroundings are able to directly and indirectly affect human's body and mind.

#### **2.4.2 Relationship between Scope of Capabilities and Resources**

This study was found on the scope of capabilities to support by environmental and surrounding components with the emphasis on considering factors that limit the expansion of different-structured components, and the scope of capabilities to support the development.

The TAT set up the meaning of scope of capabilities to support tourism as number of persons who are able to stay all the time, but destroy the least environment. Then, tourists can access facilities that are sufficiently provided for their desires without affecting local people's basic need and thinking (Tourism Periodical, 1989).

The relationship between scope of capabilities and resources can be considered in three issues below:

1. Scope of capabilities to support by environment that means the number of tourists or relaxing activities to destroy the value of environment.
2. Scope of capabilities concerning physical features that means saturation point of tourist facilities and physical losses of natural and manufactured surroundings.
3. Scope of capabilities by social support means decrease of satisfaction level of tourists and negative feelings of local people.

The studied factors include:

- Surrounding Factors - Collection and waste of rubbish
  - Culvert
  - Quality of fresh water, seawater, and environment
  - Amount and condition of coral and wildlife
- Physical Factors:
  - Areas used for tourism (service areas on beaches, activities, and fountains etc.)
  - Geography and scenery, plants, buildings
  - Infrastructure and facilities such as roads, electricity, pipelines, accommodations, and stores.
- Social Factors:
  - Tourists' attitude concerning the number of visiting tourists
  - Local people's attitude concerning tourism

### **2.4.3 Impacts of Tourism to Natural Surroundings**

Subject to problems arising in many tourist attractions, disordered and unconscious tourists may cause them; these problems are increased by the

entrepreneurs' selfishness that have not never realized the long-term bad effects. Though the Government has tried to lay the guidelines to prevent future effects, various problems still occur.

The TAT classified the causes of problems found in 172 troublous tourist attractions into 6 main issues as listed below:

1. Physical Problems: mapping, breaking into tourist attraction areas, sordid scenery caused by awkward buildings, surroundings of entrance the inconvenient communication, destroyed scenery and tourist resources, decline of buildings and construction located in tourist attractions.

2. Infrastructure Problems: non-readiness, insufficiency or uses of public utilities such as car park, water, electricity, toilets, telephones, including other facilities such as signs, benches, and trashes etc.

3. Environmental Problems: problems caused by lack of systems to manage pollution of tourist attractions such as garbage, waste water, polluted air, noise, including development without good understanding for its final effects to the surroundings.

4. Tourists' Safety Problems: non-readiness or lack of standard safety systems in the areas, no-safety for tourists' life and properties.

5. Problems of activities in Tourist Attractions: activity features are not consistent or related with tourist attractions, activities are not interesting, or activities in that particular area cannot support the tourists' demand.

6. Problems of Management Policies: budgets, personnel, collaboration between many departments and the public, lack of public relations, and uninteresting media.

Subject to causes of problem in those 172 tourist attractions, we can learn that the physical problems are the most critical. Less critical problems are environmental problems, problems of management policies, infrastructure problems, tourists' safety problems, and problems of activities in tourist attractions respectively.

Samui tourist attraction, which is the research area of this study, is 1/172 tourist attraction heavily facing the physical, infrastructure, and environmental problems. For more complete research, the researcher will also examine the problems of tourists' safety and activities in tourist attractions by using quantitative examination. Regarding the problems of the management policies, they cannot be examined from tourists; hence, the researcher will examine them from related official departments and persons by using qualitative examination.

Yuppadee Setapan (1996: 268-270) mentioned the problems of destruction of tourist surroundings as follows:

1. Decline of tourist attractions and pollutions: dirty and declining tourist attractions, scattered garbage, and components of tourist attractions loss their natural balance such as spoiled and dirty beaches, polluted and smelly water, plants, and wildlife are destroyed, corals are exploded.

Problems of breaking into public areas: it is usually found that trespassing, possessing, and using public areas have been done by reserving the areas in the mountains, reserved forests, islands, and national parks to be personal relaxing locations. Beaches may be trespassed by extending buildings into the sea or the mangrove forests and other water sources to construct restaurants etc.

2. Problems of buildings and construction without any control of forms and height that extremely cause the scenic problems. Another kinds of these problems include construction of buildings that destroy the original nature, their compositions are not get along with natural conditions, which also destroy the original charm of those tourist attractions. In addition, the congestion of food and beverage sheds, peddlers, and souvenir sheds that are built up and set up disorderly and cause the sordid views.

3. The development of infrastructure and facilities without considering the surroundings; for example, filling the sea, lakes, rivers and canals; rock explosion; building roads through the mangrove forests; and building roads too close to the seaside etc.

According to such problems of environmental components, it was found that they cause many bad effects such as damages or decline of original tourist attractions, deteriorating quality of resources, and the destruction of natural geographical conditions.

Koh Samui, the tourist attraction of this study, has faced the decline of tourist resources as other popular tourist attractions such as Phuket, Pang Nga, and Krabi etc. Therefore, the researcher shall conduct the quantitative study concerning the level of severity in the tourist attractions in relation to physical, infrastructure, environmental, tourist safety, and activity aspects. For more complete results of the study, the researcher shall conduct the study regarding problems of policies on environmental management by related agencies and persons by mean of qualitative data analysis.

## **2.5 Related Research**

Sureporn Padtrapornnan (1998: abstract) studied the “Tourists’ Attitude towards Ecotourism: A Case Study of the National Park in Kanchanaburi Province”. Results of the independent test attitudes toward ecotourism of tourists who visit National Park in Kanchanaburi Province were different based on marital status, education and knowledge of ecotourism at 0.05 level of significance.

Tongyod Suantong (1997: abstract) studied about “ The Opinions of Tourist Regarding Talingchan Floating Market ”. The findings of this study were as follow: monthly income, availability of information on the market and visit patterns influenced opinions at the significance level of 0.001 and occupation, education background, distance from the tourists’ residents to the market, travel cost, number of visiting times to the market, at the significance level of 0.01.

Prawat Semdee (1998: abstract) researched for “Public’s Opinion Regarding Management of Environmental Surrounding the Historic Building: A Case Study of Sanam Chand Palace Nakhon Pathom Province”. The study results indicated that placing a high value on the historic building and knowledge about the historic building conservation cause a difference in opinion significantly at 0.001. Sex and age caused a difference in opinion significantly at 0.01. Experience about the historic building and Sanam Chand area utilization caused a difference in opinion significantly at 0.05.

Metta Savettalakha (1997: abstract) studied on “Satisfaction of Tourists with the Recreation Area: A Case Study of Dusit Zoo ”. The results showed that the tourists expressed a medium level of satisfaction with Dusit Zoo not only general but also analyzed as follow: the number of person in the zoo, environment and facilities. Analysis of variance showed that the differences in educational level, age and duration of stay at the zoo were significantly different with the satisfaction level at 0.001, 0.01 and 0.05.

Rattawut Jiemsripong (1996: abstract) researched for “Tourists’ Satisfaction Regarding to Environment of Bangsaen Beach, Chonburi Province”. The research results indicated that province of residence and knowledge about the coastal resource conservation cause a difference in tourists’ satisfaction significantly at 0.001. Information received about the natural resource conservation and activity on Bangsaen beach cause a difference in tourists’ satisfaction significantly at 0.01. Average income, placing a high value on Bangsaen beach and age caused a difference in tourists’ satisfaction significantly at 0.05.

Surasak Khunnarong (1996: abstract) studied the “Tourists’ Opinions about Eco-tourism: A Case Study of Cave in Ratchaburi ”. The study results indicated that tourists’ opinions about eco-tourism are at moderate level and reflected satisfaction with facilities of cave, information service and safety service. Placing a high value on environment caused significant different opinions at  $p = 0.001$ . Occupation caused significant different opinions at  $p = 0.01$ . Age, average income type and number of tourist groups, the perception about eco-tourism information and

knowledge about eco-tourism caused significant difference in their opinions at  $p = 0.05$ .

Jirawan Pisesskolkit (1991: abstract) studied on the “ Public Opinion Regarding Environmental Surrounding of an Ancient Monument: A Case Study of Pom Mahakarn, Bangkok Metropolis ”. The factors which were found to have a significant effect on the level of public opinion were the following: present education level, benefits obtained from the household, expropriation, level of value judgment of Pom Mahakarn, knowledge of conservation at 0.001 and distance from the residential area to Pom Mahakarn at 0.05.

Siree Sirivan (1989: abstract) worked on the topic “Satisfaction of Tourists and Local People in Chainat Municipal Area with Chainat Bird Park ”. The finding of this study was as follow: The sample group had medium level of satisfaction with Chainat Bird Park regarding to natural characteristics, environmental provision and maintenance and facilities. The sample group had moderately high level of satisfaction with atmosphere, rules, regulations and park management including local products and foods that were available.

## **2.6 Variables Related Research**

Factors of opinion measurement of tourists determined from gathering documents as follow:

### **Gender**

Gender is one of variables that affect to the tourist opinions on tourist attraction environment. From a survey of Thailand Institution of Scientific and Technological Research in the year 1987, there is a significant difference between Thai and foreign



conservation tourists. Majority of Thai conservation tourists were female while, there were male in foreign conservation tourists.

In addition to, Charuwan Saengjun (2002: 50) work on the topic “Tourists’ Behavior to Promote the Conservation Tourism in Ko Kret, Pak Kret District, Nonthaburi Province”. The finding of this study was female had the behavior to promote the conservation tourism better than male. Nevertheless, Suree Chimjalern (1989: 188-189) studied the “The Public’s Opinions towards Dusit Zoo ” indicated that male had positive opinion towards general, environmental provision and maintenance, management on tidiness and service provide more than female.

On the other hand, Prawat Semdee (1998: 71) indicated that difference in sex caused difference in opinion non- significantly by studied the “Public’s Opinion Regarding to Management of Environmental Surrounding the Historic Building: A Case Study of Sanam Chand Palace Nakhon Pathom Province”.

Therefore, the researcher makes hypothesis about this study that tourists in different sex will have different opinions towards the tourist attraction environment.

### **Nationality**

Plain Na Nakorn (1992: 209) defined nationality as persons under the same jurisdiction of a country.

Not only birthplace and living place but also surrounding and condition in country that people live influence on attitude, though and feeling. So nationality is a part of a different opinion as follow:

Report of an Expert Study Committee (referred in Nuntiva Gerdchuen, 1990: 27) stated that the people living in different areas such as cities and rural areas will have different feelings, thinking, attitude, and moral value because they have different ways of life, social influence, including tradition and culture.

Nuntiva Gerdchuen (1990: 85) studied the scope of social capabilities of tourist beaches for a case study of Koh Samed, Rayong Province. She found that, regarding to tourists' current staying, tourists having current staying in the central part of Thailand have more satisfactory level of intensity than tourists having current staying in Bangkok, in the eastern part, and other parts of Thailand respectively.

That is similar to Saowanit Tangtrakul (1990: 214) studied on tourists' satisfaction of physical surroundings of Hua Hin beaches. It was found that different tourists currently visiting Koh Samui had different satisfaction of physical features of Hua Hin beaches.

Therefore, the researcher makes hypothesis about this study that tourists in different nationalities will have different opinions towards the tourist attraction environments.

### **Age**

The several of traveling sourced by different age. In according with Thailand Institution of Scientific and Technological Research surveyed the situation of conservation tourism (in 1987) and showed that age of Thai tourists were between 15 – 24 years old and 35 – 44 years old. On the other hand, half of foreign conservation tourists were 25 – 34 years old. Moreover, the ratio of elder foreign conservation tourists was higher than Thai that the ratio of teenagers in Thai conservation tourists was higher than foreign.

Therefore, experience from traveling in each period of age affected to idea, value, attitude and opinion as follow:

Prawat Semdee (1998: 71) studied the “ Public's Opinion Regarding to Management of Environmental Surrounding the Historic Building: A Case Study of Sanam Chand Palace Nakhon Pathom Province” indicated that difference in age was

negative related to opinion regarding to management of environmental surrounding Sanam Chand Palace.

However, Wannaporn Wanichanukorn (1987:14) said about Conservation tourists' characteristic as follows: elder than the mass tourism, majority of them were 45 – 64 years old. They had vacation more than 1 period in each year. They were middle class and upper so they had good financial status and real interested in conservation issue therefore, they liked to travel to underdeveloped countries that attractive. And in consonance with Charuwan Saengjun (2002: 50) that indicated tourist who were 35 years and upper had more behavior to promote conservation tourism than 15-24 and 25-34 years significantly at 0.001. From studied the “ Tourists' Behavior to Promote the Conservation Tourism in Ko Kret, Pak Kret District, Nonthaburi Province ”

That contradicted with Surasak Khunnarong (1996: 133) indicated that the sample group who were 20-40 years old agreed with eco-tourism more than the sampling group who were less than 19 years old and the sample group who were more than 41 years old by studied the “ Tourists' Opinions about Eco-Tourism: A Case Study of Cave in Ratchaburi ”.

Therefore, the researcher makes hypothesis about this study that tourists in different ages will have different opinions towards the tourist attraction environment.

### **Occupation**

People who have differences in occupation will be different in knowledge, experience and practice. According to Jersile (referred in Teechawan Yanudom, 2001:28) believed that people who have different opportunity must have different personality too because of the duties and responsibilities of each occupation. In 1987 the Thailand Institute of Scientific Research and Technology studied the situation of

tourism and result indicated that group of Thai conservation tourists consisted of 3 main groups; government officers, students / university student and employee.

From studied the “Tourists Satisfaction Regarding to Environmental Management of Bangsaen Beach Chonburi Province” by Rattawut Jiamsripong (1999:81) indicated that the sample group of traders or personal business had more satisfaction in management of Bangsaen beach than the sample group of agriculture / unemployed, government officer/State enterprise official and company employee. The result of analysis indicated that difference in career caused difference in satisfaction of environmental management significantly at 0.05 level.

Surasak Khunnarong (1996: 133) indicated that the sample group of government office and state enterprise employee agreed with eco-tourism more than personal business, employee, unemployed / student / housewife and agriculture from studied the “ Tourists’ Opinions about Eco-Tourism: A Case Study of Cave in Ratchaburi”. However, **Charuwan Saengjun** (2002: 50) studied the “ Tourists’ Behavior to Promote Conservation Tourism in Ko Kret, Pak Kret District, Nonthaburi Province” showed unemployed / housewife had more behavior to promote conservation tourism than merchant / self-employed, government official / state enterprise employee, officer / employee and student significantly at 0.001.

Therefore, the researcher makes hypothesis about this study that tourists in different occupations will have different opinions towards the tourist attraction environment.

### **Education**

An education is an essential factor of capability to get more knowledge. Consequently, the higher-level education is more capably gain knowledge that affected on opinion. So, the different education cause different opinion such as Rattawut Jiamsripong (1999:81) studied the “ Tourists Satisfaction Regarding to

Environmental Management of Bangsaen Beach Chonburi Province” showed that the sampling group of university certificate or equivalent have more satisfaction toward environmental management of Bang Saen Beach than other group. The result of analysis indicated that different levels of education caused different levels of satisfaction toward environmental management of Bang Saen Beach significantly at 0.001 level.

Nevertheless, Yaowaree Charoensawasde (2000:79) studied “The Tourist Satisfaction in Khao Yai National Park for Recreation Purposes” showed that the bachelor degree graduated tourists would come back for camping in the national park more than the tourists who were under bachelor degree graduated. Indicated that a difference in level of education caused a difference in expectation to come back for camping in Khao Yai National Park in future at .05 significantly.

The report of Thailand Institution of Scientific and Technological Research (1987:4-47) on the situation of tourism indicated most of the conservation foreigner tourists were bachelor degree graduated. But majority of Thai tourists are under and higher than bachelor degree graduated.

Therefore, the researcher makes hypothesis about this study that tourists in different educations will have different opinions towards the tourist attraction environment.

### **Income**

Owing to, study the relevant researches found that different income is a part of effect of tourists’ opinions towards the tourist attraction environment. The researches were as follow:

Wittaya Kiattiwat (2000:105) studied the “Conservation Tourism of Thai Tourist: A Case Study in Umphang District, Tak Province” indicated that average

monthly income related conservation tourism behavior significantly at 0.001. That in consonance with Saowaluck Nawajaroenkul (1998:153) studied on “Ecotouristic Behavior of Thai Tourists at Sai Yoke National Park, Kanchanaburi ” indicated that average monthly income related conservation tourism behavior are significantly at 0.01.

Moreover, Charuwan Saengjun (2002: 50) studied the “ Tourists’ Behavior to Promote Conservation Tourism in Ko Kret, Pak Kret District, Nonthaburi Province ” indicated that income made significant difference to behavior to promote conservation tourism at 0.001.

Therefore, the researcher makes hypothesis about this study that tourists in different incomes will have different opinions towards the tourist attraction environment.

### **Duration of Staying over Night**

Persons staying over night for tourism with a longer period of time will be able to access more tourist resources closer. Duration of staying could exactly form their perception that will affect their opinion to that tourism. Metta Kritawit et al. (1989: 72) indicated that person’s perception is a result of his/her body condition or individual physical ability, individual’s psychological features, social and cultural learning. Different perception may be formed by different influence or selection such as force or motivation, previous experience, referral frame, surroundings, mental and emotional conditions. In addition, closure, roles and fixed form are important influential factors for the perception. This is similar to the concept of Suthau Charoensuk (1981: 59) who gave the meaning of opinion as the state of mental emotions comes from that person’s experience and learning, and determines his/her like, dislike, or indifference to anything.

Worawut Aroonsiriwattana (2003: 28) studied “The Public Relation Policies and Plans of Project of Promoting and Developing the Long-term Staying Tourism”. He concluded that around 60% of tourists could have stayed in Thailand for 1 month. The tourists thought that Thai people are good-natured and friendly. Thailand’s climate is good and sunny, so they are able to enjoy swimming in the sea through the year. Then, the cost of living in Thailand is not so high and the culture is good.

Saowanit Tungtrakul (1990: 125) studied the tourist satisfaction on physical surroundings around Hua Hin beaches. She concluded that tourists who did not intend to visit and stay at Hua Hin, but stopped there since it was their passing, they would have less intention and expectation for convenience in relaxing than tourists who intended to visit Hua Hin or Hua Hin was their tourist destinations. Such intention can cause the different satisfaction.

Therefore, the researcher makes hypothesis about this study that tourists in different duration of staying will have different opinions towards the tourist attraction environment.

### **Main Purpose of Traveling**

The feeling to favorable or unfavorable affects to attention of tourists to pay to visit tourist attractions. Therefore, main purpose of traveling may be influence to opinion.

Apiwan Kiangkwa (1991: abstract) studied the “Tourists' Idea toward Improving and Development of Accommodation of Khao Yai National Park” indicated that different aim of trip effected on idea of improving and developing on accommodation of Khao Yai National Park significantly at 0.05.

Pongjit Jamjumrus (1985:122) studied the “Environmental Values of Tourists and Local Inhabitants towards Conservation and Improvement of Cha-am Resort ” indicated that the tourists who determined to travel and to have relaxation have placing

higher value on conservation than the tourists who have other aim. This is similar to the result of Lalita Photchanaphun (1996: 81) Studied the “ Ecotourism Behavior of tourists at Khao Yai National Park ” showed that the behavior on learning from environment and nature was significantly depended on major aim of trip at the level of 0.05.

Therefore, the researcher makes hypothesis about this study that tourists in different main purpose of traveling will have different opinions towards the tourist attraction environment.

### **Number of Visiting**

Tourists who visited many times in the same tourist location showed that they were attracted by attractiveness of tourist location. For instance, Thailand Institution of Scientific and Technological Research (1998:165) studied in order to determine the style of sea ecotourism: case study Koh Chang, indicated that most of tourists used to visit Koh Chang will come back again. Because its atmosphere was attractiveness. Moreover, 29.4 % of tourists visited Koh Chang more than 6 times. In addition, frequency of traveling caused different opinions towards the tourist environment. That consonance with Sureporn Padtrapornnan (1998: 113) studied the “Tourists’ Attitude toward Ecotourism: A Case Study National Park in Kanchanaburi Province” indicated that difference in attitude toward ecotourism depended on the amount of traveling per year.

Therefore, the researcher makes hypothesis about this study that tourists in different number of visiting will have different opinions towards the tourist attraction environment.

### **Forms of Visiting**

The characteristic of travel groups is one of variables that affects to the tourist opinions towards the tourist attraction environment from a research of Tongyod Suantong (1996:87) studied the “The Opinions of Tourist Regarding to Talingchan



Floating Market” indicated that friend group was majority of visit patterns. Owing to, they were more freedom in traveling, purchasing consumable products and full convenience. So, they had positive opinions toward the floating market more than the other groups. The result showed that a difference in visit patterns effected to different idea significantly at the level of 0.001. That is similar to Wittaya Kiatwiwat (2000:105) studied the “The Quality: A Case of Umphang District, Tak Province ” Indicated that friend group had the highest of conservation behavior. Next are family group and then friend group. The characteristics of traveling groups were related to the behavior of ecotourism significantly at the level of 0.05.

Futhermore, Sakonwan Parueng (1987:94) studied the “Components that Support Conservation Tourism Behavior of University Student in Bangkok ” showed that majority of characteristics of traveling was family group and interested in travel in Thailand more than abroad. The most favorite places were both in Bangkok and perimeter. The types of places were general natural tourism places, the places that are full of good food and ancient places.

Therefore, the researcher makes hypothesis about this study that tourists in different forms of visiting will have different opinions towards the tourist attraction environment.

### **Placing on Environmental Value**

From the study found that placing on environmental value affected to the behavior of conservation and opinion of environment so, it is a variable that affects to tourists’ opinions towards the tourist attraction environment. The researches were consonant as follow:

Kommala Supan (1996:147–148) studied the “A Study of the Environmental Conservation Behavior of Bangkok Youth Tourists in Various Tourism Sites in Thailand ” indicated that difference in placing on environmental value caused a

difference in conservation tourism behavior significantly at 0.001. The sample group who had placing a higher value more than the other groups effected a higher level of behavior of environmental conservation than other groups too.

Saowaluck Nawajaroenkul (1998:158) studied the “Ecotouristic Behavior of Thai Tourists at Sai Yoke National Park, Kanchanaburi ” indicated that the group who had placing high value to environment and natural resources had better behavior of conservation tourism than placing medium and low value significantly at 0.001.

Prawat Semdee (1998: 71) studied the “Public Opinion Regarding to Management of Environmental Surrounding the Historic Building: A Case Study of Sanam Chand Palace Nakhon Pathom Province” indicated that the sample group who had placing high value on the historic building agreed with regarding to management of environment surrounding Sanam Chand Palace more than the other groups.

Therefore, the researcher makes hypothesis about this study that tourists in different placing on environmental value will have different opinions towards the tourist attraction environment.

### **Message Perception on Conservation of Natural Tourist Attractions**

Media influence on knowledge and behavior. In addition, receiving information from mass media is the way to gain more knowledge, believe, thoughtfulness and behavior. There are supported by:

Rattawut Jiamsripong (1999: 83) studied the “Tourists Satisfaction Regarding to Environmental Management of Bangsaen Beach Chonburi Province” showed that the sample group who had information received about natural resource conservation had satisfaction toward environmental management of Bang Saen Beach more than the group who had medium and less information received. The result showed that a

difference in information received about the natural resource conservation caused a difference in satisfaction significantly at 0.001.

Surasak Khunnaron (1996: 136) studied the “Tourist Opinion on Ecotourism: A Case Study of Caves in Ratchaburi” indicated that a difference in the perception about ecotourism information caused a difference in the opinion about ecotourism significantly at the level of 0.05.

Saowaluck Nawajaroenkul (1998:157) Studied the “Ecotouristic Behavior of Thai Tourists at Sai Yoke National Park, Kanchanaburi” showed that information received were significant factors that affected the ecotouristic behavior at 0.05.

Prawat Semdee (1998: 71) studied the “Public Opinion Regarding to Management of Environmental Surrounding the Historic Building: A Case Study of Sanam Chand Palace Nakhon Pathom Province” indicated that information received about the historic building were positive opinion regarding to management of environment surrounding Sanam Chand Palace.

Therefore, the researcher makes hypothesis about this study that tourists in different message perception on conservation of natural tourist locations will have different opinions towards the tourist attraction environment.

### **Knowledge on Conservation of Natural Tourist Attractions**

Knowledge on conservation tourism is one of suffixes that influence on tourists’ opinions towards the tourist attraction environment. Because tourists who have knowledge on conservation tourism will have better behavior of conservation. According to Jaruwan sangchan (2002: 50) studied the “Tourist Behavior to Promote Conservation Tourism in Ko Kret, Pak Kret District, Nonthaburi Province” indicated that tourist who having knowledge on conservation tourism at high level had more behavior to promote the conservation tourism than who had knowledge at low level. A

significant difference between knowledge on conservation tourism with the behavior to promote the conservation tourism at 0.01.

This is similar to Nakom Theerasuwannajak (1998:154-155) studied the “Local Community Opinions about Their Participation in Ecotourism: A Case Study in Suanpueng District Ratchaburi Province” indicated that a difference in knowledge of ecotourism caused a difference in opinion of ecotourism significantly at 0.001. If they have knowledge of ecotourism, they’d know about advantage and disadvantage including the benefits from ecotourism in the future. And Prawat Semdee (1998: 71) studied the “Public Opinion Regarding to Management of environmental surrounding the historic building: A Case Study of Sanam Chand Palace Nakhon Pathom Province” indicated that knowledge about the historic building conservation were positive opinion regarding the management of the environment surrounding the Sanam Chand Palace.

Even so, Rattawut Jiamsripong (1999: 84) studied the “Tourists Satisfaction Regarding to Environmental Management of Bangsaen Beach Chonburi Province” showed that the sample group who had low knowledge about the coastal resource conservation satisfaction regarding the environmental management of Bangsaen beach more than the other groups. The result showed that a difference in knowledge about the coastal resource conservation caused a difference in satisfaction regarding the environmental management of Bangsaen beach significantly at the level of 0.001.

Therefore, the researcher makes hypothesis about this study that tourists in different knowledge about the conservation of natural tourist locations will have different opinions towards the tourist attraction environment.

## CHAPTER 3

### RESEARCH METHODOLOGY

In this study, survey research with questionnaire investigations and in-depth interviews were used to analyze the study composed of quantitative research by interview method and qualitative research by in-depth interview method. It is determined to study the tourist opinions on tourist attraction environmental problems: a case study at Koh Samui district, Surat Thani province.

#### 3.1 Quantitative Research

##### 3.1.1 Population

The population in this research covered both Thai and International tourists who visited to Koh Samui and 18 years old upper. We defined the group of 18 years old as a person who can make a decision and can visit alone; therefore, the mentioned group is able to analyze the information. In addition, data as collected by Koh Samui tourism coordinated center showed that, in 1998 - 2002 the tourists' average was 735,126 per year

##### 3.1.2 Sample Size

In this study, the researcher specified the sample from Taro Yamane's formula (as cited in Suchart Prasith-rathsint, 2001:127)

$$n = \frac{N}{1 + Ne^2}$$

n = Size of sample

N = Population of tourists in Koh Samui

e = Sampling error, acceptable at 95% equal to 0.05

According to, were able to collect 388 samples. Therefore, the researcher increased the size of sampling group for using in the research to be 400 samples.

### **3.1.3 Sampling**

The researcher made the sample sampling by Non-proportional to size from 200 Thai tourists and 200 International tourists. Grand total of samples were 400.

## **3.2 Qualitative Research**

The researcher used In-depth interview method to collect data and made perfect information about environmental problems from local leaders, local people, business owner, municipal councilor and government officers.

### **3.2.1 Sampling**

Determined the community for interview and sampling group by purposive sampling at Nathon Community, Chaweng Community and Lamai Community that were planned for tourism development. In addition, collected data from 6 local leaders, 9 local people, 9 owner business, 2 municipal councilors, 1 executive and 1 officer of Koh Samui tourism coordinated center and chief of tourist police advises. The total of 29 persons being representatives for an interviewing.

## **3.3 Research Instruments**

This research used questionnaire to be main instrument for data collecting. The researcher studied about the environment of nature tourist locations from textbook and relevant researches in order to create the instrument that consists as below:

### 3.3.1 The Questionnaire Used in Quantitative Research

**Section I:** The question is about demographic factors such as gender, nationality, age, occupation, education, average income and duration of staying over night (6 questions)

**Section II:** The questions related to visit pattern factors such as main purpose of traveling, number of visiting, and forms of visit. (4 questions)

**Section III:** Closed-ended question concerning to placing on environmental value. (12 questions) The rating scores are;

	Positive	Negative	
Yes	3	1	score
Neutral	2	2	score
No	1	3	score

The researcher concerned to levels of placing on the environmental as value as follows

30 scores and lower	referred to	low environmental value
31-33 scores	referred to	moderate environmental value
34 scores and upper	referred to	high environmental value

**Section IV:** Closed-ended questions related to message perception on conservation of natural tourist attractions. (5 questions).

**Section V:** Closed-ended questions related to knowledge on conservation of natural tourist attractions. (20 questions) The rating scores were:

Correct answer	=	1	score
Incorrect answer	=	0	score

The researcher concerned to levels of knowledge on conservation of natural tourist attractions as follows:

15 scores and lower	=	low knowledge
16-17 scores	=	moderate knowledge
18 scores and upper	=	high knowledge

**Section VI:** Closed-ended questions related to tourist opinions on tourist attraction environmental problems. (53 questions) The rating scores were;

	Positive	Negative	
Strongly agree	5	1	score
Agree	4	2	score
Not sure	3	3	score
Disagree	2	4	score
Strongly disagree	1	5	score

For this research, the following aspects of the tourist attraction environmental problems were examined:

**Physical problems covered 12 questions, as follows:**

15 scores and lower	=	low opinion
16-17 scores	=	moderate opinion
18 scores and upper	=	high opinion

**Infrastructure problems covered 11 questions as follows:**

33 scores and lower	=	low opinion
34-35 scores	=	moderate opinion
36 scores and upper	=	high opinion

**Environmental problems covered 13 questions as follows:**

40 scores and lower	=	low opinion
41-42 scores	=	moderate opinion
43 scores and upper	=	high opinion



**Tourist security problems covered 11 questions** as follows:

- 35 scores and lower = low opinion
- 36-38 scores = moderate opinion
- 39 scores and upper = high opinion

**Activities in tourist attraction problems covered 6 questions,** as follows:

- 18 scores and lower = low opinion
- 19-21 scores = moderate opinion
- 22 scores and upper = high opinion

**Finally, The researcher included the tourist opinions on tourist attraction environmental problems** as follows:

- 171 scores and lower = low opinion
- 172-178 scores = moderate opinion
- 179 scores and upper = high opinion

### **3.3.2 In-depth Interview Form for Qualitative Research**

1. Past to present environmental in Koh Samui
2. Environmental problems caused by tourism
3. Solutions by responsible entities
4. Policies on environmental management

## **3.4 Validity of Research Instrument**

3.4.1 Composition of questionnaires and approval of content validity by thesis supervisor committees.

3.4.2 The pre-test with 40 tourists in Koh Samui

3.4.3 Test Reliability as:

Reliability test for the section of knowledge on the conservation of tourist locations focused to Split Half Method of Spearman Brown's Correlation Factor Formula.(as cited in Boontham Kitpredaborisut, 1997: 210-212)

$$r_{tt} = \frac{2 r_{xy}}{1 + r_{xy}}$$

$r_{tt}$  = Reliability of the whole questionnaire

$r_{xy}$  = Reliability from half of questionnaire

The reliability from knowledge on conservation of tourist locations was 0.71

Reliability test for the section of tourist opinions on tourist attraction environmental problems and placing on the environmental value were coefficient Alpha Formula by Cronbach. (as cited in Boontham Kitpredaborisut, 1997: 210-212)

$$\alpha = \frac{k}{k - 1} \left( 1 - \frac{\sum S^2_i}{S^2_x} \right)$$

$\alpha$  = Coefficient alpha

$k$  = Number of items

$\sum S^2_i$  = Variance of single item

$S^2_x$  = Variance of total item

The reliability from placing on the environmental value was 0.73

The reliability from tourist opinions on tourist attraction environment was 0.78

### **3.5 Data Collection**

3.5.1 For quantitative data collection, the researcher and trained assistants collected data by interviewing the samples after asking for their favor. Duration of data collecting was in February - March 2002.

3.5.2 For qualitative data collection, attached the letter from Faculty of Social Sciences and Humanities, Mahidol University to the samples and asking for their favor, then making an appointment for in-depth interview. (the same period with quantitative research)

### **3.6 Data Analysis and Statistics**

#### **3.6.1 Quantitative Data Analysis**

After data collecting, it was checked for correctness and completeness by the following procedures:

3.6.1.1 Systemized the data and created code instruction. Coding and adjust the data in form of nominal scale and other appropriate forms.

3.6.1.2 The data were analyzed by using SPSS PC<sup>+</sup> (Statistics Package for Social Sciences) computer program and other statistic techniques as follows:

1. Percentages, Mean and Standard deviation
2. One-Way Analysis of Variance by breakdown dependent variable
3. Analysis of Variance (ANOVA) and Multiple Classification Analysis: (MCA) by breakdown dependent variable

#### **3.6.2. Qualitative Data Analysis**

Descriptive approach analysis by in-depth interview data in analyzing.

## CHAPTER 4

### RESULTS

The research findings related to tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province could be presented to various aspects follows:

#### 4.1 Demographic and motive factors

##### 4.1.1 Individual factors

##### 4.1.2 Placing on environmental value

##### 4.1.3 Message perception on conservation of natural tourist attractions

##### 4.1.4 Knowledge on conservation of natural tourist attractions

##### 4.1.5 Opinions on tourist attraction environmental problems

These aspects were presented by percentage, mean and standard deviation.

4.2 The analysis correlation of demographic factors and motive factors with the opinions on tourist attraction environmental problems were by One Way Analysis of Variance

4.3 The analysis correlation of demographic factors and motive factors with the opinions on tourist attraction environmental problems were analyzed by Analysis of Variance and Multiple Classification Analysis

#### 4.4 Problems and solutions

#### 4.5 Presentation of In-depth Interview

## 4.1 Demographic and Motive Factors

### 4.1.1 General Information of Informant

The research findings related to personal factors were presented by description of each factor as the following: (Table 4.1)

**Gender:** the majority of sample size was female (52.5%) and the remainder was male (47.5 %).

**Nationality:** Thai (50.0 %) and foreigner (50.0 %)

**Age:** The average was 33 years old. The majority of sample group 25-32 years old (39.0 %), 18-24 years old (23.0 %), 40 years old and upper (22.5 %) and 33-39 years old (15.5 %). The minimum was 18 years old and maximum was 75 years old.

**Occupation:** Five response categories: company official/employed (34.5 %), business owner/commerce (24.0 %), government/state enterprise official (16 %), both of pupil / student and others such as retire /housewife (12.8 %).

**Education:** the majority of sample group completed bachelor degree (39.8%), high school graduate/vocation certificate (22.2%), higher vocational certificate/diploma (22.0%), post graduate (13.5 %) and elementary graduate (2.5 %).

**Average Income:** the majority of sample group had monthly income for 12,000 Baht and lower (30.5%), 100,001 Baht and upper (23.5%), 12,001-30,000 Baht (18.5%), 30,001-70,000 Baht (18.5%) and 70,001-100,000 (9.0%). The average income was 62,500 Baht. Minimum and maximum were 0 and 500,000 Baht.

The sample groups were both Thai and foreigner tourists caused by different income. Thai tourists had average income for 23,511 Baht. Minimum and

maximum were 0 and 200,000 Baht. Foreigner tourists had average income for 101,425 Baht. Minimum and maximum were 0 and 500,000 Baht.

**Duration of staying Over Night:** the majority of sample group had been staying 4 nights and upper (49.4%), staying 2-3 nights (41.8%) and only 1 night (8.8%) respectively. The average staying over night was 7 nights. The minimum and maximum were 1 and 90.

**Main Purpose of Traveling:** the majority of sample group (80.2%) was for recreation, studying nature and observe the operation (11.2%), business (4.8%) and studying art and culture/tradition/and ways of life in the community (3.8%).

**Number of Visiting:** the tourists at 69.5 % was the first time, 2-3 times (24.5%) and the remainder have 4 times and upper (6.5%). The average number of visiting was 1 time. The maximum was 9 times.

**Forms of Visiting:** the majority of sample group 48.0% visited with friend, 26.0% visited with family/relative, 11.8% visited with department, 8.8% visited with the group tour and 5.4% come alone.

**Table 4.1 Number and Percentage of Demographic Factors**

Demographic Factors	Number	Percentage
<b>Gender</b>		
Female	210	52.5
Male	190	47.5
<b>Nationality</b>		
Foreigner	200	50.0
Thai	200	50.0
<b>Age</b>		
18-24 years	92	23.0
25-32 years	156	39.0
33-39 years	62	15.5
40 and upper	90	22.5
$\bar{x} = 32.60$ S.D.= 10.94 MAX. = 75 MIN.= 18		
<b>Occupation</b>		
Pupil/Student	51	12.8
Government /State enterprise employee	64	16.0
Business owner / commerce	96	24.0
Company officer / Employee	138	34.5
Others	51	12.8
<b>Education</b>		
Elementary graduate	10	2.5
High school graduate/vocational certificate	89	22.2
Higher vocational certificate/diploma	88	22.0
Bachelor degree	159	39.8
Post graduate	54	13.5

**Table 4.1** Number and Percentage of Demographic Factors (continue)

Demographic Factors	Number	Percentage
<b>Average Income</b>		
12,000 Baht and lower	122	30.5
12,001 - 30,000 Baht	74	18.5
30,001 - 70,000 Baht	74	18.5
70,001 - 100,000Baht	36	9.0
100,001 Baht and upper	94	23.5
$\bar{x} = 62468.20$ S.D.= 72848.51 MAX. = 500000 MIN.= 0		
<b>Duration of staying over night</b>		
1 night	35	8.8
2-3 nights	167	41.8
4 nights and upper	198	49.4
$\bar{x} = 7.14$ S.D.= 9.50 MAX. = 90 MIN.= 1		
<b>Main purpose of traveling</b>		
Recreation	321	80.2
Studying the nature and observe the operation	45	11.2
Studying the art and cultural / tradition / ways of life in the community	15	3.8
Business	19	4.8
<b>Number of visiting</b>		
First time	276	69.5
2-3 times	98	24.5
4 times and upper	26	6.0
$\bar{x} = 1.68$ S.D. = 1.51 MAX. = 9 MIN. = 1		



**Table 4.1 Number and Percentage of Demographic Factors (continue)**

Demographic Factors	Number	Percentage
<b>Forms of visiting</b>		
Alone	22	5.4
With friend	192	48.0
With family / relative	104	26.0
With the group tour	35	8.8
With department	47	11.8

#### 4.1.2 Value on Environment

From the 12 questions about placing on the environmental value could be concluded as follows: (Table 4.2)

1. The beautiful nature persuades you to visit; 83.5 % agree, 15.3 % neutral and 1.3 % disagree.
2. \* You chose to visit the natural tourist locations highly favored by most people without any attention to their congestion or their pure nature; 44.2% agree, 34.0 % neutral and 21.8 % disagree.
3. You prefer relaxing by visiting many natural locations such as islands, waterfalls, seas, mountains, and caves; 90.7% agree, 6.8 % neutral and 2.5% disagree.
4. For each trip, you do not need luxurious and too many facilities; 60.5% agree, 23.5 % neutral and 16.0 % disagree.
5. You are impressed by clear and clean sea, and the white long beaches; 85.7 %, agree 10.5 % neutral and 3.8 % disagree.
6. You always like to collect shells and corals and take them home; 5.3% disagree, 11.7 % neutral and 83.0 % agree.
7. \* You always like to buy the souvenirs made from natural materials such as shells, corals, stuffed animals, etc. from each particular tourist location; 73.7% agree, 17.0 % neutral and 9.3 % disagree.

8. Except the clear and cool waterfalls, you think that the shadiness under the trees, tidiness, and no big buildings located around the waterfalls are also important; 86.7 % agree, 10.5 % neutral and 2.8 % disagree.

9. You think that the tourist ancient relics located are as important as beaches and waterfalls; 70.5 % agree, 21.5 % neutral and 8.0 % disagree.

10. You are interested in learning the nature/ways of life/ and local culture of the locations you visit; 78.2 % agree, 17.0 % neutral and 4.8 % disagree.

11. You have never littered the garbage/ scrape/ destroy the tourist locations you visit; 66.2 % agree, 18.3 % neutral and 15.5 % disagree.

12. \* You have not paid attention to rules and regulations of that particular tourist location; 74.7 % agree, 9.0 % neutral and 16.3 % disagree.

**Table 4.2 Number and Percentage of Tourist Classified by Placing on Environmental Value**

Statement	Agree		Neutral		Disagree	
	(N)	Percentage	(N)	Percentage	(N)	Percentage
1. The beautiful nature persuades you to visit.	334	83.5	61	15.2	5	1.3
2. * You chose to visit the natural tourist locations highly favored by most people without any attention to their congestion or their pure nature.	87	21.8	136	34.0	177	44.2
3. You prefer relaxing by visiting many natural locations such as islands, waterfalls, seas, mountains, and caves.	363	90.7	27	6.8	10	2.5
4. For each trip, you do not need luxurious and too many facilities.	242	60.5	94	23.5	64	16.0
5. You are impressed by clear and clean sea, and the white long beaches.	343	85.7	42	10.5	15	3.8

**Table 4.2 Number and Percentage of Tourist Classified by Placing on Environmental Value (continue)**

Statement	Agree		Neutral		Disagree	
	(N)	Percentage	(N)	Percentage	(N)	Percentage
6. * You always like to collect shells and corals and take them home.	21	5.3	47	11.8	332	83.0
7. * You always like to buy the souvenirs made from natural materials such as shells, corals, stuffed animals, etc. from each particular tourist location.	37	9.3	68	17.0	295	73.7
8. Except the clear and cool waterfalls, you think that the shadiness under the trees, tidiness, and no big buildings located around the waterfalls are also important.	347	86.7	42	10.5	11	2.8
9. You think that the tourist ancient relics located are as important as beaches and waterfalls.	282	70.5	86	21.5	32	8.0
10. You are interested in learning the nature/ways of life/ and local culture of the locations you visit.	313	78.2	68	17.0	19	4.8
11. You have never littered the garbage/ scrape/ destroy the tourist locations you visit.	265	66.2	73	18.3	62	15.5
12. * You have not paid attention to rules and regulations of that particular tourist location.	65	16.3	36	9.0	299	74.7

\* Negative items

We combined the score of placing on the environmental value. Concerning from mean and cumulative percent. We could categorized them into 3 levels, the majority of sample size did placing on the environmental value at moderate level (41.8%), high level (30.2%), and low level (28.0 %) respectively. The average score was 31.91. (Table 4.3)

**Table 4.3 Number and Percentage of Tourist Classified by Levels of Placing on Environmental Value.**

Levels of Placing on Environmental Value	Number	Percentage
<b>Total</b>	<b>400</b>	<b>100.0</b>
Low level (30 scores and lower)	112	28.0
Moderate level (31-33 scores)	167	41.8
High level (34 scores and upper)	121	30.2
$\bar{x} = 31.9075$ S.D.= 2.6365	MAX.=36	MIN.= 23

### 4.1.3 Message Perception and Source on Conservation of Natural Tourist Attractions

#### 4.1.3.1 Message perception on conservation of natural tourist attractions.

The result of receiving information about the conservation of natural tourist attractions, 400 cases can explain as follows: (Table 4.4)

The study shown that, 65.2% of tourists had message perception on conservation of natural tourist attractions. Majority got from mass media (25.2%), from publishing (23.8%), from electronics (8.5%), from persons (6.2%), and others media such as exhibition / tourist fairs (1.5%) respectively.

On the other hand, the tourists who never got message on conservation of natural tourist attractions were 34.8 %

**Table 4.4 Number and Percentage of Tourist Classified by Source of Message Perception on Conservation of Natural Tourist Attractions**

Source of Message	Number	Percentage
<b>Total</b>	<b>400</b>	<b>100.0</b>
<b>Received</b>	<b>261</b>	<b>65.2</b>
Mass media	101	25.2
Publishing media	95	23.8
Personal media	25	6.2
Electronic media	34	8.5
Other media	6	1.5
<b>Never</b>	<b>139</b>	<b>34.8</b>

**4.1.3.2 Additional requirement of message on conservation of natural tourist attractions**

The additional requirement of message on conservation of natural tourist attractions could be presented as follows: (Table 4.5)

Almost of tourists required message (77.8%) that from mass media (35.3%), most of tourists desired from television (34.1%) and radio (1.2%) respectively. Publishing media (25.0%), newspaper (8.3%), brochure (6.0%), journal (5.7%), and magazine (5.0%) respectively. From electronics media (13.3%), internet was the most popular (8.8%) and web site (4.5%) respectively. From personal (3.0%), officials of the Authority of Tourism Promotion was the most popular person (1.7%), friend (1.0 %) and colleague (0.3%) denied additional information.

The tourists who had no requirement of information about the conservation of natural tourist attractions were 22.2 %.

**Table 4.5 Number and Percentage of Tourist Classified by Type of Media**

N = 400 cases

Type of Media	Number	Percentage
<b>Total</b>	<b>400</b>	<b>100.0</b>
<b>Requirement</b>	<b>311</b>	<b>77.8</b>
<b>Mass media</b>	<b>150</b>	<b>35.3</b>
Radio	5	1.2
Television	136	34.1
<b>Publishing media</b>	<b>100</b>	<b>25.0</b>
Magazine	23	5.7
Journal	20	5.0
Newspaper	33	8.3
Brochure	24	6.0
Announcements	0	0.0
<b>Persons media</b>	<b>12</b>	<b>3.0</b>
Friends	4	1.0
Relatives	0	0.0
Colleagues	1	0.3
Official of the Authority of Tourism promotion	7	1.7
<b>Electronics media</b>	<b>53</b>	<b>13.3</b>
Internet	35	8.8
Web sites	18	4.5
<b>Others</b>	<b>5</b>	<b>1.3</b>
Exhibition	0	0.0
Tourist fairs	5	1.3
<b>No Requirement</b>	<b>89</b>	<b>22.2</b>

#### 4.1.4 Knowledge on Conservation of Natural Tourist Attractions

The resulted of 20 questions of knowledge about the conservation of natural tourist attractions, 400 cases included topics as follows: (Table 4.6)

1. Conservation means using the resources for the highest benefit and, at the means time, trying to keep them in the unchanged conditions; 79.5 % got correct answers while 20.5 % got incorrect ones.

2. Eco-tourism means traveling to study the nature, society, and culture based on knowledge and responsibility to the environment; 93.2 % got correct answers while 6.8 % got incorrect ones.

3. The main objective of the eco-tourism is to develop the tourists' conscious mind and comprehension so that they could provide benefit to the environment; 89.0 % got correct answers while 11.0 % got incorrect ones.

4. Characteristics of good eco-tourism are: following the regulations set for each particular tourist location/ paying attention to the importance of information, learning while traveling to increase the knowledge and become aware of the environment conservation; 97.0 % got correct answers while 3.0 % got incorrect ones.

5. \* Beach conservation means the uses of beach areas for the highest and continual economical benefit to reply to tourists' demands and to attract the tourists; 68.7 % got correct answers while 31.3 % got incorrect ones.

6. \* Constructing the accommodations and shops along the beautiful tourist beaches should be done for tourists' benefit and convenience; 82.0 % got correct answers while 18.0 % got incorrect ones.

7. \* Constructing the accommodations or other buildings in the natural tourist locations must focus on their modernity, luxury, and convenience to attract the tourists; 84.7 % got correct answers while 15.3 % got incorrect ones.

8. \* Building the roads along and so close to the beaches is one of facilities provided to the tourists; 57.5 % got correct answers while 42.5 % got incorrect ones.

9. Tourists' irresponsibility causes the deterioration of natural tourist locations; 87.7 % got correct answers while 12.3 % got incorrect ones.

10. The destruction of natural tourist locations affects the tourist businesses; 88.2 % got correct answers while 11.8 % got incorrect ones.

11. Good principles of tourism are “do not leave anything except your footsteps and will not collect anything except your memory and impression”; 93.5 % got correct answers while 6.5 % got incorrect ones.

12. \* Offering the knowledge about nature and environment to the tourists is not essential because they want to relax and enjoy only; 80.7 % got correct answers while 19.3 % got incorrect ones.

13. \* Advertising and persuading a number of tourists into visiting a natural tourist location each time provide good effects to that tourist place; 51.0 % got correct answers while 49.0 % got incorrect ones.

14. \* Selling the souvenirs, made from the natural resources that should be reserved, can generate the income to tourist locations; 67.5 % got correct answers while 32.5 % got incorrect ones.

15. Keeping the tourist locations clean is the duty of officials or the persons in charge; 77.2 % got correct answers while 22.8 % got incorrect ones.

16. Controlling the number of tourists can help the proper support for tourists in each tourist location; 86.7 % got correct answers while 13.3 % got incorrect ones.

17. Using the areas for activities and businesses should be properly set; for example, setting the areas for service places, shops, and valuable areas to have order and attractiveness; 89.0 % got correct answers while 11.0 % got incorrect ones.

18. Adapting the environment or buildings without caring the original nature will decline the natural balance; 91.5 % got correct answers while 8.5 % got incorrect ones.

19. \* Construction to be consistent to the environment and to show the local unique is not essential because, now, the competition focuses on the modernity and convenience only; 67.7 % got correct answers while 32.3 % got incorrect ones.

20. Nature, shadiness, and attractiveness of tourist locations are the key factors to attract the tourists; 87.0 % got correct answers while 13.0 % got incorrect ones.



**Table 4.6 Number and Percentage of Tourist Classified by Knowledge on Conservation of Natural Tourist Attractions**

Statement	Correct		Incorrect	
	(N)	Percentage	(N)	Percentage
1. Conservation means using the resources for the highest benefit and, at the means time, trying to keep them in the unchanged conditions.	318	79.5	82	20.5
2. Eco-tourism means traveling to study the nature, society, and culture based on knowledge and responsibility to the environment.	373	93.2	27	6.8
3. The main objective of the eco-tourism is to develop the tourists' conscious mind and comprehension so that they could provide benefit to the environment.	356	89.0	44	11.0
4. Characteristics of good eco-tourism are: following the regulations set for each particular tourist location/ paying attention to the importance of information, learning while traveling to increase the knowledge and become aware of the environment conservation.	388	97.0	12	3.0
5. * Beach conservation means the uses of beach areas for the highest and continual economical benefit to reply to tourists' demands and to attract the tourists.	275	68.7	125	31.3
6. * Constructing the accommodations and shops along the beautiful tourist beaches should be done for tourists' benefit and convenience.	328	82.0	72	18.0

**Table 4.6 Number and Percentage of Tourist Classified by Knowledge on Conservation of Natural Tourist Attractions (continue)**

Statement	Correct		Incorrect	
	(N)	Percentage	(N)	Percentage
7. * Constructing the accommodations or other buildings in the natural tourist locations must focus on their modernity, luxury, and convenience to attract the tourists.	339	84.7	61	15.3
8. * Building the roads along and so close to the beaches is one of facilities provided to the tourists.	230	57.5	170	42.5
9. Tourists' irresponsibility causes the deterioration of natural tourist locations.	351	87.7	49	12.3
10. The destruction of natural tourist locations affects the tourist businesses.	353	88.2	47	11.8
11. Good principles of tourism are "do not leave anything except your footsteps and will not collect anything except your memory and impression."	374	93.5	26	6.5
12. * Offering the knowledge about nature and environment to the tourists is not essential because they want to relax and enjoy only.	323	80.7	77	19.3
13. * Advertising and persuading a number of tourists into visiting a natural tourist location each time provide good effects to that tourist place.	204	51.0	196	49.0
14. * Selling the souvenirs, made from the natural resources that should be reserved, can generate the income to tourist locations.	270	67.5	130	32.5

**Table 4.6 Number and Percentage of Tourist Classified by Knowledge on Conservation of Natural Tourist Attractions (continue)**

Statement	Correct		Incorrect	
	(N)	Percentage	(N)	Percentage
15. Keeping the tourist locations clean is the duty of officials or the persons in charge.	309	77.2	91	22.8
16. Controlling the number of tourists can help the proper support for tourists in each tourist location.	347	86.7	53	13.3
17. Using the areas for activities and businesses should be properly set; for example, setting the areas for service places, shops, and valuable areas to have order and attractiveness.	356	89.0	44	11.0
18. Adapting the environment or buildings without caring the original nature will decline the natural balance.	366	91.5	34	8.5
19. * Construction to be consistent to the environment and to show the local unique is not essential because, now, the competition focuses on the modernity and convenience only.	271	67.7	129	32.3
20. Nature, shadiness, and attractiveness of tourist locations are the key factors to attract the tourists.	348	87.0	52	13.0

\* Negative items

We combined the score of knowledge about conservation of natural tourist attractions. Concerning from mean and cumulative percent. We could categorize them into 3 levels, the majority of sample size had knowledge about conservation of natural tourist attractions at moderate level (36.8%), high level (31.7%), and low level (31.5%) respectively. The average score was 16.21 (Table 4.7)

**Table 4.7 Number and Percentage of Tourist Classified by Levels of Knowledge on Conservation of Natural Tourist Attractions**

<b>Knowledge on Conservation of Natural Tourist Attractions</b>	<b>Number</b>	<b>Percentage</b>
<b>Total</b>	<b>400</b>	<b>100.0</b>
Low level (15 scores and lower)	126	31.5
Moderate level (16-17 scores)	147	36.8
High level (18 scores and upper)	127	31.7
$\bar{x} = 16.2100$ S.D.= 2.4497    MAX.= 20    MIN.= 8		

#### **4.1.5 Tourist Opinion on Tourist Attraction Environmental Problems.**

In the study, 400 cases were asked to check a list to indicate their opinions on tourist attraction environmental problems. There were various parts of problems mentioned as follows: (Table 4.8)

### Physical Aspects

The resulted of 12 questions of physical aspects was presented as follows: (Table 4.8)

1. Some tourist attractions, including beaches, waterfalls, and ancient buildings are, naturally, little perfect; Strongly agree 61.0 %, agree 33.0 %, not sure 4 %, disagree 1.5 % and strongly disagree 0.5 %.

2. Some tourist attractions, including beaches, waterfalls, and ancient buildings are encumbered and cause the bad scenery; Strongly agree 24.0 %, agree 41.0%, not sure 25.5 %, disagree 8.2 % and strongly disagree 1.3 %

3. \* Sightseeing sites are properly set up and you are satisfied with the utilization of natural surroundings; Strongly agree 22.5 %, agree 35.5 %, not sure 25.3 %, disagree 13.5 % and strongly disagree 3.2 %.

4. Open and clear beach areas should be increased for more natural attractiveness; Strongly agree 39.7 %, agree 32.5 %, not sure 19.0 %, disagree 7.5 % and strongly disagree 1.3 %.

5. The viewpoints are not suitable, and the utilization of natural surroundings is little; Strongly agree 22.7 %, agree 53.8 %, not sure 17.7 %, disagree 4.8 % and strongly disagree 1.0 %.

6. The tourists are little impressed with having the swim at the waterfalls, and the utilization of waterfall tourist attractions is little; Strongly agree 12.7 %, agree 43.3 %, not sure 33.7 %, disagree 9.0 % and strongly disagree 1.3 %

7. You are impressed by the utilization of tourist beaches located so closely to your accommodation; Strongly agree 17.0 %, agree 52.5 %, not sure 21.2 %, disagree 7.8 % and strongly disagree 1.5 %

8. Some hotels, resorts, bungalows trespass the beaches; Strongly agree 24.0 %, agree 31.2 %, not sure 20.8 %, disagree 13.7 % and strongly disagree 10.3 %

9. \* Tourist accommodations are not beautiful, modern, and convenient; Strongly agree 13.0 %, agree 48.8 %, not sure 27.0 %, disagree 10.0% and strongly disagree 1.2 %

10. Some natural tourist locations are out of repairs; Strongly agree 22.7 %, agree 38.8 %, not sure 30.0 %, disagree 7.5 % and strongly disagree 1.0 %

11. Food sheds, peddlers, goods stalls and souvenir stalls are congested and out of order; Strongly agree 22.4 %, agree 34.7 %, not sure 19.3 %, disagree 21.3 % and strongly disagree 2.3 %

12. Some structures or buildings are not associated and consistent to the conditions of natural tourist locations; Strongly agree 23.2 %, agree 45.8 %, not sure 25.2 %, disagree 4.8 % and strongly disagree 1.0 %

**Table 4.8 Number and Percentage of Tourist Classified by Opinions on Tourist Attraction Environmental Problems Related to Physical Aspects**

Questions	Strongly Agree	Agree	Not Sure	Dis-agree	Strongly Disagree
<b>Physical Aspects</b>					
1. Some tourist attractions, including beaches, waterfalls, and ancient buildings are, naturally, little perfect.	244 (61.0)	132 (33.0)	16 (4.0)	6 (1.5)	2 (0.5)
2. Some tourist attractions, including beaches, waterfalls, and ancient buildings are encumbered and cause the bad scenery.	96 (21.0)	164 (41.0)	102 (25.5)	33 (8.2)	5 (1.3)
3. * Setting the land uses for activities and businesses; for example, setting up the accommodation zones for tourists, service places, shops-stalls, and valuable areas as a part of city mapping, is proper, nice-looking, and in good order.	90 (22.5)	142 (35.5)	101 (25.3)	54 (13.5)	13 (3.2)
4. Open and clear beach areas should be increased for more natural attractiveness.	159 (39.7)	130 (32.5)	76 (19.0)	30 (7.5)	5 (1.3)

**Table 4.8 Number and Percentage of Tourist Classified by Opinions on Tourist Attraction Environmental Problems Related to Physical Aspects**  
(continue)

Questions	Strongly Agree	Agree	Not Sure	Dis-agree	Strongly Disagree
5. The viewpoints are not suitable, and the utilization of natural surroundings is little.	91 (22.7)	215 (53.8)	71 (17.7)	19 (4.8)	4 (1.0)
6. The tourists are little impressed with having the swim at the waterfalls, and the utilization of waterfall tourist attractions is little.	51 (12.7)	173 (43.3)	135 (33.7)	36 (9.0)	5 (1.3)
7. You are impressed by the utilization of tourist beaches located so closely to your accommodation.	68 (17.0)	210 (52.5)	85 (21.2)	31 (7.8)	6 (1.5)
8. Some hotels, resorts, bungalows trespass the beaches.	96 (24.0)	125 (31.2)	83 (20.8)	55 (13.7)	41 (10.3)
9. * Tourist accommodations are not beautiful, modern, and convenient.	52 (13.0)	195 (48.8)	108 (27.0)	40 (10.0)	5 (1.2)
10. Some natural tourist locations are out of repairs.	91 (22.7)	155 (38.8)	120 (30.0)	30 (7.5)	4 (1.0)
11. Food sheds, peddlers, goods stalls and souvenir stalls are congested and out of order.	90 (22.4)	139 (34.7)	77 (19.3)	85 (21.3)	9 (2.3)
12. Some structures or buildings are not associated and consistent to the conditions of natural tourist locations.	93 (23.2)	183 (45.8)	101 (25.2)	19 (4.8)	4 (1.0)

\* Negative items

We combined the score of opinions on tourist attraction environmental problems related to physical aspects. Concerning from mean and cumulative percent. We can categorized them into 3 level, the majority of sample group have opinion towards problems at high level 46.7%, at low level 29.3% and at moderate level 24.0% respectively. The average score was 42.95 (Table 4.9)

**Table 4.9 Number and Percentage of Tourist Classified by Levels of Opinions on Tourist Attraction Environmental Problems Related to Physical Aspects**

Physical Aspects	Number	Percentage
<b>Total</b>	<b>400</b>	<b>100.0</b>
Low level (40 scores and lower)	117	29.3
Moderate level (41-43 scores)	96	24.0
High level (44 scores and upper)	187	46.7
$\bar{x} = 42.9475$ S.D.= 4.0485    MAX.= 52    MIN.= 31		

### Infrastructure

The results of 11 questions of infrastructure were presented as follows: (Table 4.10)

1.\* Many structures at tourist locations such as roads, car parks have been maintained and in good conditions; Strongly agree 6.3 %, agree 45.7 %, not sure 28.5 %, disagree 16.3 % and strongly disagree 3.2 %



2. Communications by road, water and air are so convenient; Strongly agree 17.2 %, agree 63.0 %, not sure 12.5 %, disagree 6.5 % and strongly disagree 0.8 %

3.\* There are good roads connecting every tourist location; Strongly agree 6.8 %, agree 49.0 %, not sure 25.0 %, disagree 16.7 % and strongly disagree 2.5 %

4. There are lights provided along the roads built around Koh Samui that wipe out terror while driving at night; Strongly agree 12.7 %, agree 63.3 %, not sure 35.2 %, disagree 13.5 % and strongly disagree 2.3 %

5. There are some problems regarding the water and electricity in your accommodation; Strongly agree 15.7 %, agree 49.0 %, not sure 18.8 %, disagree 14.0 % and strongly disagree 2.5 %

6.\* A lot of restrooms are provided at all tourist locations and they are clean without any stench; Strongly agree 7.8 %, agree 27.0 %, not sure 34.5 %, disagree 23.7 % and strongly disagree 7.0 %

7. On Koh Samui, there are good communication facilities such as telephone, post, electronic media etc.; Strongly agree 25.5 %, agree 57.2 %, not sure 11.5 %, disagree 5.3 % and strongly disagree 0.5 %

8.\* The signs and directions are fully provided on the roads around the island; Strongly agree 12.3 %, agree 47.2 %, not sure 29.0 %, disagree 9.5 % and strongly disagree 2.0 %

9.\* Information Service and Tourist Information Centers are fully provided for tourists; Strongly agree 13.0 %, agree 46.5 %, not sure 31.5 %, disagree 7.8 % and strongly disagree 1.2 %

10. Some tourist locations are not clean enough. Waste buckets/garbage bins are not sufficient for tourists; Strongly agree 21.2 %, agree 39.8 %, not sure 21.5 %, disagree 13.0 % and strongly disagree 4.5 %

11. There are enough modern and equipped nursing homes to provide services to the tourists on the island; Strongly agree 9.5 %, agree 33.2 %, not sure 51.5 %, disagree 4.5 % and strongly disagree 1.3 %

**Table 4.10 Number and Percentage of Tourist Classified by Opinions on Tourist Attraction Environmental Problems Related to Infrastructure**

Questions	Strongly Agree	Agree	Not Sure	Dis-agree	Strongly Disagree
<b>Infrastructure</b>					
1. * Many structures at tourist locations such as roads, car parks have been maintained and in good conditions.	25 (6.3)	183 (45.7)	114 (28.5)	65 (16.3)	13 (3.2)
2. Communications by road, water and air are so convenient.	69 (17.2)	252 (63.0)	50 (12.5)	26 (6.5)	3 (0.8)
3. * There are good roads connecting every tourist location.	27 (6.8)	196 (49.0)	100 (25.0)	67 (16.7)	10 (2.5)
4. There are lights provided along the roads built around Koh Samui that wipe out terror while driving at night.	51 (12.7)	145 (63.3)	141 (35.2)	54 (13.5)	9 (2.3)
5. There are some problems regarding the water and electricity in your accommodation .	63 (15.7)	196 (49.0)	75 (18.8)	56 (14.0)	10 (2.5)
6. * A lot of restrooms are provided at all tourist locations and they are clean without any stench.	31 (7.8)	108 (27.0)	138 (34.5)	95 (23.7)	28 (7.0)
7. On Koh Samui, there are good communication facilities such as telephone, post, electronic media, etc.	102 (25.5)	229 (57.2)	46 (11.5)	21 (5.3)	2 (0.5)

**Table 4.10 Number and Percentage of Tourist Classified by Opinions on Tourist Attraction Environmental Problems Related to Infrastructure**  
(continue)

Questions	Strongly Agree	Agree	Not Sure	Dis-agree	Strongly Disagree
8. * The signs and directions are fully provided on the roads around the island.	49 (12.3)	189 (47.2)	116 (29.0)	38 (9.5)	8 (2.0)
9. * Information Service and Tourist Information Centers are fully provided for tourists.	52 (13.0)	186 (46.5)	126 (31.5)	31 (7.8)	5 (1.2)
10. Some tourist locations are not clean enough. Waste buckets /garbage bins are not sufficient for tourists.	85 (21.2)	159 (39.8)	88 (21.5)	52 (13.0)	18 (4.5)
11. There are enough modern and equipped nursing homes to provide services to the tourists on the island.	38 (9.5)	133 (33.2)	206 (51.5)	18 (4.5)	5 (1.3)

\* negative items

We combined the score of opinions on tourist attraction environmental problems related to infrastructure. Concerning from mean and cumulative percent. We could categorize them into 3 levels, the majority of sample group had opinions at high level (39.0 %), moderate level (33.7 %) and low level (27.3 %) respectively. The average score was 35.01 (Table 4.11)

**Table 4.11 Number and Percentage of Tourist Classified by Levels of Opinions on Tourist Attraction Environmental Problems Related to Infrastructure**

Infrastructure	Number	Percentage
<b>Total</b>	<b>400</b>	<b>100.0</b>
Low level (33 scores and lower)	109	27.3
Moderate level (34-35 scores)	135	33.7
High level (36 scores and upper)	156	39.0
$\bar{x} = 35.0075$	S.D.= 2.5941	MAX.= 45 MIN.= 27

### Environment

The results of 13 questions of environment were presented as follows: (Table 4.12)

1. The seawater in some tourist attractions is not quite clear and is full of garbage; Strongly agree 14.7 %, agree 37.8 %, not sure 20.2 %, disagree 20.8 % and strongly disagree 6.5 %

2. \* The sea and beaches are attractive with some pure nature; Strongly agree 13.8 %, agree 29.7 %, not sure 21.8 %, disagree 27.2 % and strongly disagree 7.5 %

3. The sea and beaches are still attractive and naturally virgin; Strongly agree 12.2 %, agree 41.8 %, not sure 25.2 %, disagree 17.3 % and strongly disagree 3.5 %

4. The food peddlers at the beaches cause food leavings, garbage, and untidiness; Strongly agree 12.7 %, agree 36.3%, not sure 25.0 %, disagree 23.3 % and strongly disagree 2.7 %

5. Your accommodation zone and neighboring areas are cleanly maintained without any garbage/ rubbish, and stench; Strongly agree 18.0 %, agree 49.2%, not sure 19.5 %, disagree 10.8 % and strongly disagree 2.5 %

6. The waterfalls are not suitable to swim; Strongly agree 10.2 %, agree 41.5 %, not sure 43.0 % , disagree 5.0 % and strongly disagree 0.3 %

7. \* The tourist waterfall areas have been fully maintained without any littering garbage or stench; Strongly agree 8.0 %, agree 30.0 %, not sure 52.3 %, disagree 7.7 % and strongly disagree 2.0 %

8. The waterfall tourist attractions have not been cared, so they are encumbered, full of scrawl, or the trees are destroyed; Strongly agree 6.5 %, agree 30.5 %, not sure 53.5 %, disagree 7.7 % and strongly disagree 1.8 %

9. \* The tourist ancient remains have been maintained, and restored without any scrawls; Strongly agree 7.3 %, agree 34.2 %, not sure 50.3 % , disagree 7.0 % and strongly disagree 1.2 %

10. Food shops located at the tourist waterfalls or ancient remains are small and they do not care of hygiene that partly causes the untidiness; Strongly agree 14.5 %, agree 25.7 %, not sure 39.3 %, disagree 18.5 % and strongly disagree 2.0 %

11. A great number of tourists cause the traffic jam in the tourist locations and using a lot of vehicles cause the noise and air pollution; Strongly agree 21.7 %, agree 47.5 %, not sure 19.8 %, disagree 8.2 % and strongly disagree 2.8 %

12. \* Along the roads around the island and the roads connecting to the tourist locations, they are clean and there is not any garbage; Strongly agree 6.3 %, agree 24.0 %, not sure 34.0 %, disagree 31.0 % and strongly disagree 4.7 %

13. \* All tourist locations have naturally been attractive, clean and unpolluted; Strongly agree 8.3 %, agree 31.5 %, not sure 32.0 %, disagree 24.0 % and strongly disagree 4.2 %

**Table 4.12 Numbers and Percentage of Tourist Classified by Opinions on Tourist Attraction Environmental Problems Related to Environment**

Questions	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
<b>Environmental</b>					
1. The seawater in some tourist attractions is not quite clear and is full of garbage.	59 (14.7)	151 (37.8)	81 (20.2)	83 (20.8)	26 (6.5)
2. * The beaches are clean and there is not littering garbage.	55 (13.8)	119 (29.7)	87 (21.8)	109 (27.2)	30 (7.5)
3. The sea and beaches are still attractive and naturally virgin.	49 (12.2)	167 (41.8)	101 (25.2)	69 (17.3)	14 (3.5)
4. The food peddlers at the beaches cause food leavings, garbage, and untidiness.	51 (12.7)	145 (36.3)	100 (25.0)	93 (23.3)	11 (2.8)
5. Your accommodation zone and neighboring areas are cleanly maintained without any garbage/rubbish, and stench.	72 (18.0)	197 (49.2)	78 (19.5)	43 (10.8)	10 (2.5)
6. The waterfalls are not suitable to swim.	41 (10.2)	166 (41.5)	172 (43.0)	20 (5.0)	1 (0.3)
7. * The tourist waterfall areas have been fully maintained without any littering garbage or stench.	32 (8.0)	120 (30.0)	209 (52.3)	3 (7.7)	8 (2.0)
8. The waterfall tourist attractions have not been cared, so they are encumbered, full of scrawl, or the trees are destroyed.	26 (6.5)	122 (30.5)	214 (53.5)	31 (7.7)	7 (1.8)

**Table 4.12 Numbers and Percentage of Tourist Classified by Opinions on Tourist Attraction Environmental Problems Related to Environment (continue)**

Questions	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
9. * The tourist ancient remains have been maintained, and restored without any scrawls.	29 (7.3)	137 (34.2)	201 (50.3)	28 (7.0)	5 (1.2)
10. Food shops located at the tourist waterfalls or ancient remains are small and they do not care of hygiene that partly causes the untidiness.	58 (14.5)	103 (25.7)	157 (39.3)	74 (18.5)	8 (2.0)
11. A great number of tourists cause the traffic jam in the tourist locations and using a lot of vehicles cause the noise and air pollution.	87 (21.7)	190 (47.5)	79 (19.8)	33 (8.2)	11 (2.8)
12. * Along the roads around the island and the roads connecting to the tourist locations, they are clean and there is not any garbage.	25 (6.3)	96 (24.0)	136 (34.0)	124 (31.0)	19 (4.7)
13. * All tourist locations have naturally been attractive, clean and unpolluted.	33 (8.3)	126 (31.5)	128 (32.0)	96 (24.0)	17 (4.2)

\* negative items

We combined the score of opinions on tourist attraction environmental problems related to environmental aspects. Concerning from mean and cumulative percent. We could categorize them into 3 levels, the majority of sample group had opinions towards problems at high level (37.2 %), moderate level (32.5 %) and low level (30.3 %) respectively. The average score was 41.76 (Table 4.13)

**Table 4.13 Number and Percentage of Tourist Classified by Levels of Opinions on Tourist Attraction Environmental Problems Related to Environmental**

Environment	Number	Percentage
<b>Total</b>	<b>400</b>	<b>100.0</b>
Low level (40 scores and lower)	121	30.3
Moderate level (41-42 scores)	130	32.5
High level (43 scores and upper)	149	37.2
$\bar{x} = 41.7625$	S.D.= 2.8568	MAX.= 50 MIN.= 32

### **Tourist Security**

The results of 11 questions of tourist security were presented as follows: (Table 4-14)

1. Safety is a reason of your decision to visit Koh Samui; Strongly agree 17.2 %, agree 44.3 %, not sure 15.5 %, disagree 21.5 % and strongly disagree 1.5 %

2. You have no fear for this visit although you have learned the crimes met by some tourists previously visited here; Strongly agree 9.2 %, agree 53.5 %, not sure 29.5 %, disagree 6.5 % and strongly disagree 1.3 %



3. You can feel the life and asset safety throughout your visiting period at Koh Samui; Strongly agree 9.5 %, agree 61.5 %, not sure 27.2 %, disagree 1.8 % and strongly disagree 0.0 %

4. You think that the tourist policemen should provide the tourists the information/ brochures regarding the ways to protect themselves and their assets; Strongly agree 21.2 %, agree 48.3 %, not sure 19.0 %, disagree 11.0 % and strongly disagree 0.5 %

5.\* All accommodations and tourist locations are safe; Strongly agree 7.8 %, agree 32.7%, not sure 41.5%, disagree 16.3 % and strongly disagree 1.7%

6. There are no enough safety systems for some activities such as cliff climbing, diving etc.; Strongly agree 8.7 %, agree 24.8 %, not sure 51.7 %, disagree 14.5 % and strongly disagree 0.3 %

7.\* You can do the activities all day and even all night; Strongly agree 7.0 %, agree 34.0 %, not sure 38.0 %, disagree 18.3 % and strongly disagree 2.7 %

8. You can drive to anywhere in Koh Samui even at night; Strongly agree 6.2 %, agree 44.5 %, not sure 39.3 %, disagree 7.0 % and strongly disagree 3.0 %

9. You can feel the friendship given by local people; Strongly agree 28.2 %, Agree 57.3 %, Not sure 12.5 %, Disagree 1.7 % and Strongly disagree 0.3 %

10. You are sure of standard prices and services of goods; Strongly agree 4.5 %, agree 31.2 %, not sure 38.5 %, disagree 17.0 % and strongly disagree 8.8 %

11.\* Traveling by bus is safe, both in respect of services and fares; Strongly agree 15.0 %, agree 47.0 %, not sure 30.8 %, disagree 5.2 % and strongly disagree 2.0 %

**Table 4.14 Number and Percentage of Tourist Classified by Opinions on Tourist Attraction Environmental Problems Related to Tourist Security**

Questions	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
<b>Tourists' Security Aspect</b>					
1. Safety is a reason of your decision to visit Koh Samui.	69 (17.2)	177 (44.3)	62 (15.5)	86 (21.5)	6 (1.5)
2. You have no fear for this visit although you have learned the crimes met by some tourists previously visited here.	37 (9.2)	214 (53.5)	118 (29.5)	26 (6.5)	5 (1.3)
3. You can feel the life and asset safety throughout your visiting period at Koh Samui.	38 (9.5)	246 (61.5)	109 (27.2)	7 (1.8)	0 (0.0)
4. You think that the tourist policemen should provide the tourists the information/ brochures regarding the ways to protect themselves and their assets.	85 (21.2)	193 (48.3)	76 (19.0)	44 (11.0)	2 (0.5)
5. * All accommodations and tourist locations are safe.	31 (7.8)	131 (32.7)	166 (41.5)	65 (16.3)	7 (1.7)
6. There are no enough safety systems for some activities such as cliff climbing, diving, etc.	35 (8.7)	99 (24.8)	207 (51.7)	58 (14.5)	1 (0.3)
7. * You can do the activities all day and even all night.	28 (7.0)	136 (34.0)	152 (38.0)	73 (18.3)	11 (2.7)
8. You can drive to anywhere in Koh Samui even at night.	25 (6.2)	178 (44.5)	157 (39.3)	28 (7.0)	12 (3.0)

**Table 4.14 Number and Percentage of Tourist Classified by Opinions on Tourist Attraction Environmental Problems Related to Tourist Security**  
(continue)

Questions	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
9. You can feel the friendship given by local people.	113 (28.2)	229 (57.3)	50 (12.5)	7 (1.7)	1 (0.3)
10. You are sure of standard prices and services of goods.	18 (4.5)	125 (31.2)	154 (38.5)	68 (17.0)	35 (8.8)
11. * Traveling by bus is safe, both in respect of services and fares.	60 (15.0)	188 (47.0)	123 (30.8)	21 (5.2)	8 (2.0)

\* negative items

We combined the score of opinions on tourist attraction environmental problems related to tourist security. Concerning from mean and cumulative percent. We could them into 3 levels, the majority of sample group had opinions towards problems at moderate level (45.5 %), low level (33.0 %) and high level (21.5 %), respectively. The average score was 36.43. (Table 4.15)

**Table 4.15 Number and Percentage of Tourist Classified by Levels of Opinions on Tourist Attraction Environmental Problems Related to Tourist Security**

Tourist Security	Number	Percentage
<b>Total</b>	<b>400</b>	<b>100.0</b>
Low level (35 scores and lower)	132	33.0
Moderate level (36-38 scores)	182	45.5
High level (39 scores and upper)	86	21.5
$\bar{x}$ = 36.4300	S.D.= 2.9837	MAX.= 47 MIN.= 27

### Activities in Tourist Attractions

The results of 6 questions of activities in tourist attractions were presented as follows: (Table 4-16)

1. Except swimming, sunbathing and other outdoor activities such as sitting on the elephant's back, touring in the forest, diving, jet skiing, bicycling, and spa some activities are not consistent with the environment of Koh Samui neither sufficient for the number of tourists; Strongly agree 11.0 %, agree 51.5 %, not sure 29.7 %, disagree 7.3 % and strongly disagree 0.5 %

2. Golf is an outdoor sport that does not fit to Koh Samui because it wastes the natural resources, particularly the fresh water; Strongly agree 31.0 %, agree 26.0 %, not sure 26.7 %, disagree 9.3 % and strongly disagree 7.0 %

3. Other services such as internet café/computer game shops, which can be easily found at Koh Samui; are apparently contradictory to tourist locations focusing on nature like Koh Samui. Strongly agree 8.0 %, agree 23.0 %, not sure 30.2 %, disagree 33.3 % and strongly disagree 5.5 %

4.\* Scuba diving and snorkeling to see the corals are well planned and controlled not to deteriorate the corals; Strongly agree 13.8 %, agree 37.5 %, not sure 40.7 %, disagree 5.0 % and strongly disagree 3.0 %

5. There are too many night activities such as bar beers, pubs, and entertaining sources and they are not in good conditions; Strongly agree 18.5 %, agree 30.2 %, not sure 29.3 %, disagree 19.7 % and strongly disagree 2.3 %

6.\* Activities of learning local life are now perfect and need not to be supported by the government or related persons; Strongly agree 7.3 %, agree 15.2 %, not sure 31.8 %, disagree 33.2 % and strongly disagree 12.5 %

**Table 4-16 Numbers and Percentage of Tourist Classified by Opinions on Tourist Attraction Environmental Problems Related to Activities in Tourist Attractions**

Questions	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
<b>Activities in Tourist Attractions Aspect</b>					
1. Except swimming, sunbathing and other outdoor activities such as sitting on the elephant’s back, touring in the forest, diving, jet skiing, bicycling, and spa some activities are not consistent with the environment of Koh Samui neither sufficient for the number of tourists.	44 (11.0)	206 (51.5)	119 (29.7)	29 (7.3)	2 (0.5)
2. Golf is an outdoor sport that does not fit to Koh Samui because it wastes the natural resources, particularly the fresh water.	124 (31.0)	104 (26.0)	107 (26.7)	37 (9.3)	28 (7.0)
3. Other services such as internet café/computer game shops, which can be easily found at Koh Samui, are apparently contradictory to tourist locations focusing on nature like Koh Samui.	32 (8.0)	92 (23.0)	121 (30.2)	133 (33.3)	22 (5.5)
4. * Scuba diving and snorkeling to see the corals are well planned and controlled not to deteriorate the corals.	55 (13.8)	150 (37.5)	163 (40.7)	20 (5.0)	12 (3.0)

**Table 4-16 Numbers and Percentage of Tourist Classified by Opinions on Tourist Attraction Environmental Problems Related to Activities in Tourist Attractions (continue)**

Questions	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
5. There are too many night activities such as bar beers, pubs, and entertaining sources and they are not in good conditions.	74 (18.5)	121 (30.2)	117 (29.3)	79 (19.7)	9 (2.3)
6. * Activities of learning local life are now perfect and need not to be supported by the government or related persons.	29 (7.3)	61 (15.2)	127 (31.8)	133 (33.2)	50 (12.5)
* negative items					

We combined the score of opinions on tourist attraction environmental problems related to activities in tourist attractions. Concerning from mean and cumulative percent. We could categorize them into 3 levels, the majority of sample group had opinions towards problems at moderate level (41.7 %), low level (35.8 %) and high level (22.5 %), respectively. The average score was 19.42 (Table 4.17)

**Table 4.17 Number and Percentage of Tourist Classified by Levels of Opinions on Tourist Attraction Environmental Problems Related to Activities in Tourist Attractions**

Activities in Tourist Attractions Aspect	Number	Percentage
<b>Total</b>	<b>400</b>	<b>100.0</b>
Low level (18 scores and lower)	143	35.8
Moderate level (19-21 scores)	167	41.7
High level (22 scores and upper)	90	22.5
$\bar{x} = 19.4225$ S.D.= 2.7809    MAX.= 27    MIN.= 11		

We combined the score all of opinions on tourist attraction environmental problems. Concerning from mean and cumulative percent. We could categorize them into 3 levels, the majority of sample group had opinions towards the tourism environmental problems at high level (34.2 %), moderate level (33.8 %) and low level (32.0 %) respectively. The average score was 175.57. (Table 4.18)

**Table 4.18 Number and Percentage of Tourist Classified by Levels of Opinions on Tourist Attraction Environmental Problems**

Opinions on Tourist Attraction Environmental Problems	Number	Percentage
<b>Total</b>	<b>400</b>	<b>100.0</b>
Low level (171 scores and lower)	128	32.0
Moderate level (172-178 scores)	135	33.8
High level (179 scores and upper)	137	34.2
$\bar{x} = 175.57$ S.D.= 8.4971    MAX.= 205    MIN.= 145		

#### **4.2 Analysis of Correlation on Demographic and Motive Factors with Tourist Opinions on Tourist Attraction Environmental Problems by One Way Analysis of Variance**

The analysis of correlation on demographic and motive factors with the opinions on tourist attraction environment was presented as follows: (Table 4.19)

**Gender:** Female had the opinions on tourist attraction environmental problems more than male. Based on statistical test, different gender did not affect tourist opinions on tourist attraction environmental problems at the level of significance.

**Nationality:** Thai tourists had the opinions on tourist attraction environmental problems more than foreigner tourists. Based on statistical test, different nationality affected the different opinions on tourist attraction environmental problems at 0.05 level of significance.

**Age:** Sample group who were 33-39 years had opinions on tourist attraction environmental problems more than sample group who were 40 years and upper, between 25-32 years and 15-24 years respectively. Based on statistical test, different age did not affect tourist opinions on tourist attraction environmental problems at the level of significance.

**Occupation:** Sample group who were government/state enterprise employee had opinions on tourist attraction environmental problems more than company officer/employee, business owner / commerce, others (retired group and house wife) and pupil/student respectively. Based on statistical test, different occupation did not affect tourist opinions on tourist attraction environmental problems at the level of significance.

**Education:** Sample group who completed postgraduate had opinions on tourist attraction environmental problems more than bachelor degree, higher vocational certificate/diploma, high school graduate/vocational certificate and elementary



graduate respectively. Based on statistical test, different education did not affect tourist opinions on tourist attraction environmental problems at the level of significance.

**Average income:** The Sample group with average income between 12,001 - 30,000 Baht had opinions on tourist attraction environmental problems more than 70,001 – 100,000 Baht, 100,001 Baht and upper, 12,000 Baht and lower, and 30,001 - 70,000 Baht. Based on statistical test, different average income affected the different opinion towards the tourism environmental problems at 0.05 level of significance.

**Duration of staying over night:** The sample group who stayed for only 1 night had opinions on tourist attraction environmental problems more than ones who stayed 2-3 nights or 4 nights and upper respectively. Based on statistical test, different duration of staying over night affected the different opinions on tourist attraction environmental problems at 0.05 level of significance.

**Main purpose of traveling:** The sample group with objective for recreation had opinions on tourist attraction environmental problems more than studying nature and observe the operation, studying art and cultural / tradition / ways of life in the community and business respectively. Based on statistical test, different main purpose of traveling affected the different opinions on tourist attraction environmental problems at 0.05 level of significance.

**Number of traveling:** Sample group visiting for 2-3 times had opinions on tourist attraction environmental problems more than ones who visited the first time or 4 times and upper respectively. Based on statistical test, different number of traveling did not affect tourist opinions on tourist attraction environmental problems at the level of significance.

**Forms of visiting:** Sample group who visited with a group tour had opinions on tourist attraction environmental problems more than ones who visited with department, with friend,

with family / relatives and single visit. Based on statistical test, different forms of visiting did not affect tourist opinions on tourist attraction environmental problems at the level of significance.

**Placing on environmental value:** Sample group who paid attention at high level had opinions on tourist attraction environmental problems more than the moderate level group and the low level group. Based on statistical test, different placing on environmental value affected different opinions on tourist attraction environmental problems at 0.05 level of significance.

**Message perception on conservation of natural tourist attractions:** Sample group who used to receive information had opinions on tourist attraction environmental problems more than the samples group whom had never. Based on statistical test, different receiving information about conservation of natural tourist attractions did not affect tourist opinions on tourist attraction environmental problems at the level of significance.

**Knowledge on conservation of natural tourist attractions:** Sample group with high level of knowledge had opinions on tourist attraction environmental problems than moderate level group and low level group. Based on statistical test, different knowledge about the conservation of natural tourist attractions affected the different opinions on tourist attraction environmental problems at 0.01 level of significance.

**Table 4.19 Analysis of Correlation on Demographic and Motive Factors with Opinions on Tourist Attraction Environmental Problems**

Variables	$\bar{x}$	S.D.	N	Sig of F.
<b>Gender</b>				<b>0.984</b>
Male	176.11	8.50	210	
Female	174.97	8.47	190	
<b>Nationality</b>				<b>0.014</b>
Foreigner	174.59	7.73	200	
Thai	176.55	9.11	200	
<b>Age</b>				<b>0.800</b>
18-24 years	174.85	7.19	92	
25-32 years	175.60	8.26	156	
33-39 years	176.00	9.28	62	
40 years and upper	175.96	9.60	90	
<b>Occupation</b>				<b>0.263</b>
Pupil/Student	173.94	6.13	51	
Government / State enterprise employee	177.45	8.45	64	
Business owner / commerce	175.52	8.58	96	
Company officer / Employee	175.54	9.37	138	
Others	175.00	7.76	51	

**Table 4.19 Analysis of Correlation on Demographic and Motive Factors with Opinions on Tourist Attraction Environmental Problems (continue)**

Variables	$\bar{x}$	S.D.	N	Sig of F.
<b>Education</b>				<b>0.207</b>
Elementary graduate	173.80	9.31	10	
High school graduate/ Vocational certificate	173.92	8.23	89	
Higher vocational certificate/ Diploma	175.41	9.08	88	
Bachelor degree	176.38	8.48	159	
Post graduate	176.48	7.64	54	
<b>Average income</b>				<b>0.013</b>
12,000 Baht and lower	174.92	7.94	122	
12,001 – 30,000 Baht	178.46	9.87	74	
30,001 –70,000 Baht	173.79	8.76	74	
70,001-100,000 Baht	175.64	6.94	36	
100,001 Baht and upper	175.51	7.95	94	
<b>Duration of staying over night</b>				<b>0.046</b>
1 night	178.00	7.78	35	
2-3 nights	176.17	9.26	167	
4 nights and upper	174.63	7.83	198	

**Table 4.19 Analysis of Correlation on Demographic and Motive Factors with Opinions on Tourist Attraction Environmental Problems (continue)**

Variables	$\bar{x}$	S.D.	N	Sig of F.
<b>Main purpose of traveling</b>				<b>0.041</b>
Recreation	175.93	8.61	321	
Studying on nature and observe the operation	175.69	7.64	45	
Studying on art and culture/ tradition/ ways of life in the community	174.00	8.69	15	
Business	170.37	7.03	19	
<b>Number of visiting</b>				<b>0.771</b>
First Time	175.37	8.18	278	
2-3 Times	176.05	9.45	98	
4 Times and upper	175.96	8.22	24	
<b>Forms of visiting</b>				<b>0.160</b>
Single visit	173.50	6.22	22	
With friend	175.59	8.58	192	
With family / relatives	174.65	8.69	104	
With group tour	178.26	8.78	35	
With department	176.49	8.12	47	
<b>Placing value on environmental Value</b>				<b>0.034</b>
Low level	174.81	8.59	112	
Moderate level	174.86	7.96	167	
High level	177.25	8.95	121	

**Table 4.19 Analysis of Correlation on Demographic and Motive Factors with Opinions on Tourist Attraction Environmental Problems (continue)**

Variables	$\bar{x}$	S.D.	N	Sig of F.
<b>Message perception on conservation of natural tourist attractions</b>				<b>0.116</b>
Never	175.32	7.97	139	
Received	175.70	8.77	261	
<b>Knowledge on conservation of natural tourist attractions</b>				<b>0.003</b>
Low level	175.14	7.76	126	
Moderate level	174.17	8.74	147	
High level	177.61	8.59	127	

### 4.3 Correlation on Demographic and Motive Factors with Tourist Opinions on Tourist Attraction Environmental Problems by Analysis of Variance and Multiple Classifications Analysis

#### 4.3.1 Analysis of Variance

##### Model

##### Dependent Variables (Explained)

The opinions on tourist attraction environmental problems

##### Independent Variables (Main Effects)

Gender

Nationality

Occupation

Education

Average income

Main purpose of traveling

Forms of visiting

Placing on environmental value

Message perception on conservation of natural tourist attractions

Knowledge on conservation of natural tourist attractions

##### Covariates

Age

Duration of staying over night

Number of visiting

According to the analysis of variance (Table 4.20) was found that the main effects (Independent variables) consisted of gender, nationality, occupation, education, average income, main purpose of traveling, forms of visiting, placing on

environmental value, message perception the conservation of natural tourist attractions and knowledge on conservation of natural tourist attractions had related to the opinions on tourist attraction environmental problems at 0.05 level of significance.

In the consideration of each main effect, nationality and main purpose of traveling had a significance related to the opinions on tourist attraction environmental problems at 0.05. Gender, occupation, education, average income, forms of visiting, placing on environmental value, message perception on conservation of natural tourist attractions and knowledge on conservation of natural tourist attractions did not related to tourist opinions on tourist attraction environmental problems.

Following the analysis of variance was found that the covariates consisted of age, duration of staying over night and number of visiting were not related to tourist opinions on tourist attraction environmental problems.

In the consideration of each covariate age was positively related to tourist opinions on tourist attraction environmental problems even duration of staying over night and number of visiting was negatively related to tourist opinions on tourist attraction environmental problems.

Based on statistical test, both main effect and covariates in the model had explained a significance related to the tourist opinions on tourist attraction environmental problems at 0.05.



**Table 4.20 Analysis of Variance on Demographic and Motive Factors with Opinions on Tourist Attraction Environmental Problems**

Source of Variation	Sum of Square	DF	Mean Square	F	Sig of F.
<b>Main Effects</b>	<b>3087.145</b>	<b>26</b>	<b>118.736</b>	<b>1.715</b>	<b>0.017</b>
Gender	130.972	1	130.972	1.891	0.170
Nationality	398.113	1	398.113	5.749	0.017
Occupation	322.605	4	80.651	1.165	0.326
Education	206.754	4	51.688	0.746	0.561
Average income	557.654	4	139.413	2.013	0.092
Main purpose of traveling	608.274	3	202.758	2.928	0.034
Forms of visiting	171.826	4	42.956	0.620	0.648
Placing on environmental value	98.974	1	98.974	1.429	0.233
Message perception on conservation of natural tourist attractions	314.913	2	157.456	2.274	0.104
Knowledge on conservation of natural tourist attractions	277.061	2	138.530	2.001	0.137
<b>Covariates</b>	<b>100.852</b>	<b>3</b>	<b>33.617</b>	<b>0.485</b>	<b>0.693</b>
Age	11.821	1	11.821	0.171	0.680
Duration of staying over night	87.326	1	87.326	1.261	0.262
Number of visiting	1.705	1	1.705	0.025	0.875
<b>Explained</b>	<b>3187.997</b>	<b>29</b>	<b>109.931</b>	<b>1.588</b>	<b>0.030</b>
<b>Residual</b>	<b>25620.043</b>	<b>370</b>	<b>69.243</b>		
<b>Total</b>	<b>28808.040</b>	<b>399</b>	<b>72.201</b>		

**Covariates Raw Regression Coefficient**

Age	0.069
Duration of staying over night	-0.036
Number of visiting	-0.001

### 4.3.2 Multiple Classifications Analysis

According to the multiple classifications analysis of factors was found that the independent and dependent variables were related as follows: (Table 4.21)

**Gender:** Unadjusted factors were found that female had the opinions on tourist attraction environmental problems more than male. After adjusted for factors the result was the same. Thus, sex was able to predict the opinion at low level (Beta = 0.06).

**Nationality:** Unadjusted factors were found that Thai tourists had the opinions on tourist attraction environmental problems more than foreigner tourists. After the factors adjusted, the result was the same. Thus, nationality was able to predict the opinion at low level (Beta = 0.14).

**Occupation:** Unadjusted factors were found that sample group who were government/state enterprise employee had opinions on tourist attraction environmental problems more than company officer / employee, business owner / commerce, others (retire group and housewife) and pupil/student. After the factors adjusted, the result was found that the sample group who were government/state enterprise employee had opinions on tourist attraction environmental problems more than business owner / commerce, others (retire group and housewife), company officer / employee and pupil/student. Thus, occupation was able to predict the opinion at low level (Beta = 0.06).

**Education:** Unadjusted factors were found that the sample group who completed postgraduate had opinions on tourist attraction environmental problems more than ones who finished bachelor degree, higher vocational certificate/diploma, high school graduate/vocational certificate and elementary graduate. After the factors adjusted, the result was the same. Thus, education was able to predict the opinion at low level (Beta = 0.07).

**Average income:** Unadjusted factors were found that the sample group with average income between 12,001 - 30,000 Baht had opinions on tourist attraction environmental problems more than 70,001 – 100,000 Baht, 100,001 Baht and upper, 12,000 Baht and lower and 30,001 - 70,000 Baht. After the factors adjusted, the result was the same. Thus, average income was able to predict the opinion at low level (Beta = 0.12).

**Main purpose of traveling:** Unadjusted factors were found that the sample group who had the objective for recreation had opinions on tourist attraction environmental problems more than studying on nature and observe the operation, studying on art and cultural / tradition /ways of life in the community and business respectively. After the factors adjusted the result was found that the sample group with objective for recreation had opinions on tourist attraction environmental problems more than studying on art and cultural / tradition /ways of life in the community, studying nature and observe the operation and business .Thus, main purpose of traveling was able to predict the opinion at low level (Beta = 0.13 ).

**Forms of visiting:** Unadjusted factors were found that the sample group with group tour had opinions on tourist attraction environmental problems more than ones with department, with friend, with family / relatives and single visit. After the factors adjusted the result was the same. Thus, forms of visiting were able to predict the opinion at low level (Beta = 0.11).

**Placing on environmental value:** Unadjusted factors were found that the sample group who paid attention at high level had opinions on tourist attraction environmental problems more than the moderate level group and the low level group. After the factors adjusted the result was the same. Thus, placing the environmental value was able to predict the opinion at low level (Beta = 0.09).

**Message perception on conservation of natural tourist attractions:**

Unadjusted factors were found that the sample group receiving information had opinions on tourist attraction environmental problems more than ones who had no message perception. After the factors adjusted, the result was found that sample group who had never received information had opinions on tourist attraction environmental problems more than ones who got it. Thus, the message perception on conservation of natural tourist attractions was able to predict the opinion at low level (Beta = 0.08).

**Knowledge on conservation of natural tourist attractions:**

Unadjusted factors were found that the sample group with high level of knowledge had opinions on tourist attraction environmental problems than the moderate level group and the low level group. After the factors adjusted, the result was the same. Thus, knowledge on conservation of natural tourist attractions was able to predict the opinion at low level (Beta = 0.10).

In conclusion, it was found that the sample group who was female, Thai tourists, government/state enterprise employee, completed postgraduate, average income between 12,001 - 30,000 Baht, main purpose of traveling for recreation, visited with group tour, placing a high value on the environment used to receive information and high level of knowledge had opinions on tourist attraction environmental problems than other groups.

According to the model without covariates was found that all of independent variables can explained the opinions on tourist attraction environmental problems for 10.7 % (Multiple  $R^2 = 0.107$ ) and the multiple coefficients of correlation was 0.327 (Multiple  $R = 0.327$ ). The model with covariates was able to increase at 11.1 % (Multiple  $R^2 = 0.111$ ) and the multiple coefficients of correlation was 0.333 (Multiple  $R = 0.333$ ).

**Table 4.21 Multiple Classification Analysis of Demographic and Motive factors with Opinions on Tourist Attraction Environmental Problems**

**(Grand Mean =175.57)**

Variables + Categories	N	Unadjusted Dev'n Eta	Adjusted for Independents Dev'n Beta	Adjusted for Independents + Covariates Dev'n Beta
<b>Gender</b>				
Male	210	176.1143	176.0238	176.0806
Female	190	174.9684	175.0684	175.0057
			<b>.07</b>	<b>.6</b>
<b>Nationality</b>				
Foreigner	200	174.5900	174.4995	174.3440
Thai	200	176.5500	176.6405	176.7960
			<b>.12</b>	<b>.13</b>
<b>Occupation</b>				
Pupil/Student	51	173.9412	174.7453	174.9118
Government / state enterprise employee	64	177.4531	176.3890	176.2604
Business owner / commerce	96	175.5208	176.0598	176.0224
Company officer / Employee	138	175.5435	175.1291	175.1532
Others	51	175.0000	175.6378	175.6381
			<b>.12</b>	<b>.07</b>

**Table 4.21 Multiple Classification Analysis of Demographic and Motive factors with Opinions on Tourist Attraction Environmental Problems**  
(continue)

**(Grand Mean =175.57)**

<b>Variables + Categories</b>	<b>N</b>	<b>Unadjusted Dev'n Eta</b>	<b>Adjusted for Independents Dev'n Beta</b>	<b>Adjusted for Independents + Covariated Dev'n Beta</b>
<b>Education</b>				
Elementary	10	173.8000	174.9829	174.4997
High school vocational certificate	89	173.9213	174.5987	174.5278
Higher vocational certificate/ diploma	88	175.4091	175.7130	175.5836
Bachelor degree	159	176.3836	175.9314	176.0243
Graduates	54	176.4815	175.9824	176.1260
		<b>.12</b>	<b>.06</b>	<b>.07</b>
<b>Average income</b>				
12,000 Baht and lower	122	174.9180	174.8100	174.8932
12,001 – 30,000 Baht	74	178.4595	176.8430	176.7575
30,001-70,000 Baht	74	173.7973	174.0411	173.9804
70,001-100,000 Baht	36	175.6389	176.3722	176.5611
100,001 Baht and upper	94	175.5106	176.4507	176.3853
		<b>.18</b>	<b>.13</b>	<b>.12</b>

**Table 4.21 Multiple Classification Analysis of Demographic and Motive factors with Opinions on Tourist Attraction Environmental Problems**  
(continue)

(Grand Mean =175.57)

Variables + Categories	N	Unadjusted Dev'n Eta	Adjusted for Independents Dev'n Beta	Adjusted for Independents + Covariates Dev'n Beta
<b>Main purpose of traveling</b>				
Recreation	321	175.9346	175.8742	175.8812
Studying nature and observe the operation	45	175.6889	175.4348	175.3425
Studying art and cultural/ tradition / ways of life in the community	15	174.0000	175.6005	175.5762
Business	19	170.3684	170.7260	170.8461
			<b>.14</b>	<b>.13</b>
				<b>.13</b>
<b>Forms of visiting</b>				
Single	22	173.5000	174.3684	173.8151
With friend	192	175.5885	175.6340	175.6793
With family / relatives	104	174.6538	174.7315	174.6186
With group tour	35	178.2571	177.6633	177.8291
With department	47	176.4894	176.1675	176.3678
			<b>.13</b>	<b>.10</b>
				<b>.11</b>

**Table 4.21 Multiple Classification Analysis of Demographic and Motive factors with Opinions on Tourist Attraction Environmental Problems**  
(continue)

(Grand Mean =175.57)

<b>Variables + Categories</b>	<b>N</b>	<b>Unadjusted Dev'n Eta</b>	<b>Adjusted for Independents Dev'n Beta</b>	<b>Adjusted for Independents + Covariated Dev'n Beta</b>
<b>Placing on the environmental Value</b>				
At low level	112	174.8125	175.1075	175.0329
At moderated level	167	174.8623	175.0208	175.0703
At high level	121	177.2479	176.7561	176.7568
			<b>.13</b>	<b>.09</b>
<b>Message perception on conservation of natural tourist locatios</b>				
Never	139	175.3237	176.4630	176.5321
Received	261	175.7011	175.0944	175.0576
			<b>.02</b>	<b>.08</b>
<b>Knowledge on conservation of natural tourist locations</b>				
At low level	126	175.1429	175.8354	175.7713
At moderated level	147	174.1701	174.4646	174.4957
At high level	127	177.6142	176.5862	176.6138
			<b>.17</b>	<b>.11</b>
<b>Multiple R Squared</b>			<b>0.107</b>	<b>0.111</b>
<b>Multiple R</b>			<b>0.327</b>	<b>0.333</b>



#### 4.4 Problems and Guideline of Solutions on Tourist Attraction Environmental Problems Recommended By the Tourists

Pursuant to the study of the tourist opinions on tourist attraction environmental problems of Koh Samui district, the problems and solutions of tourists are categorized into 5 aspects.

**Physical Aspect:** according to the data collection, it was found that there were 34.50% of the sample group presented the problems related to this aspect while the rest (65.50%) did not present it (Table 4.22).

**Table 4.22 Number and Percentage of Tourist Attraction Problems Related to Physical Aspects**

**(Total = 400)**

Problem Presentation	Number	Percentage
Presentation	138	34.50
No presentation	262	65.50

However, since the questions were open-ended, the sample group was able to offer more than one answer. Physical aspects were mostly presented: construction of buildings interloping public areas such as beaches and mountains that worsen the scenery and geographical conditions, and destroy tourism resources (33.80%); the bad city mapping that causes the city disorder (28.17%); and much decreases of Koh Samui symbol, coconut trees, due to development and provision of services to tourists by replacing the coconut farms with high buildings, which cause the strange architecture in the areas (16.90%) respectively. The details as follow:

<b>Environment</b>	<b>Number</b>	<b>Percentage</b>
<b>Problems</b>		
1.1 Buildings were constructed by interloping public areas such as beaches and mountains, which worsen the scenery and geographical conditions, and destroy the tourism resources.	48	33.80
1.2 There was no good city mapping, which makes the city disorder.	40	28.18
1.3 The symbol of Koh Samui, coconut trees, is sharply decreasing because some areas of coconut farms have been used for the development and provision of services to tourists by constructing high buildings that caused strange architecture in the areas.	24	16.90
1.4 Entrepreneurs who have operated the accommodation business reserve to beach areas for their own clients.	17	11.97
1.5 Some accommodation locations are in declining conditions and are not located in proper site; for example, being too close to temples.	13	9.15

In addition, it was found that the sample group presented the solutions relating to this aspect (35.25 %) while the rest (64.75 %) did not present it (Table 4.23).

**Table 4.23 Number and Percentage of Tourist Attraction Solutions Related to Physical Aspects**

<b>(Total = 400)</b>		
<b>Solutions</b>	<b>Number</b>	<b>Percentage</b>
Presentation	141	35.25
No presentation	259	64.75

The solutions were mostly presented Locations, types, and number of buildings should be determined in order to control the destruction and the interloping of environment. In addition, the distance between buildings and beaches should be set up, and there were drastic actions to every person who construct the buildings interloping the beaches, mountains, and public areas (31.98 %). There should be the order of city mapping and zoning for businesses such as accommodation locations, entertainment zones, shops and stalls, etc. for the good order of the city (29.25 %). Concrete construction and high buildings should be reduced so that they were not contrary to natural condition. Moreover, the number of facilities should be reduced whereas the construction styles were considered to be consistent with original ways of life and culture (20.41 %) respectively. The details as follow:

<b>Problems</b>	<b>Number</b>	<b>Percentage</b>
1.1 Locations, types, and number of buildings should be determined in order to control the destruction and the interloping of the environment. In addition, the distance between buildings and beaches should be set up, and there are drastic actions to every person who construct the buildings interloping the beaches, mountains, and public areas.	47	31.98
1.2 There should be the order of city mapping and zoning for businesses such as accommodation locations, entertainment zones, shops and stalls, etc. for the good order of the city.	43	29.25
1.3 Concrete construction and high buildings should be reduced so that they are not contrary to the natural conditions. Moreover, the number of facilities should be reduced whereas the construction styles are considered to be consistent with original ways of life and culture.	30	20.41

Problems	Number	Percentage
1.4 There should be more public beaches since, now, many beaches belong to the personal assets of hotel, resort, and bungalow entrepreneurs.	15	10.20
1.5 Direct responsible entities should be established with duties and responsibilities of controlling and preventing the destruction of natural environment; for example, cutting the trees, developing the coastline to be consistent with the natural preservation, and the government officials must keep the public interest more than their personal interest.	8	5.44
1.6 Rules and regulations should be set up to be complied by tourists during their visits.	4	2.72

**Infrastructure:** according to the data collection, it was found that the minority of the sample group presented the problems relating to this aspect (37.0 %) while the rest (63.0 %) did not present it (Table 4.24).

**Table 4.24 Number and Percentage of Tourist Attraction Problems Related to Infrastructure**

(Total = 400)		
Problems	Number	Percentage
Presentation	148	37.0
No Presentation	252	63.0

However, since the questions were open-ended, the sample group was able to offer more than one answer. Infrastructure aspects mostly presented were: Some sections of roads were dilapidated, the traffic light system was not good, some direction signs were not set up in appropriate sites that may cause the accidents

(27.27%). There were few trashes and public toilets in tourist attractions, and they had some stench. In addition, there were not public bathrooms (26.62 %); Roads and footpaths of tourist attractions were narrow and damaged whereas they were full of many motorcycles that caused the inconvenience to walk along (14.29%) respectively. The details were as follow:

	<b>Problems</b>	<b>Number</b>	<b>Percentage</b>
1.1	Some sections of roads are dilapidated, the traffic light system is not good and some direction signs are not set up in appropriate sites that may cause the accidents.	42	27.27
1.2	There are few trashes and public toilets in tourist attractions, and they have some stench. In addition, there are not public bathrooms.	41	26.62
1.3	Roads and footpaths of tourist attractions are narrow and damaged whereas they are full of many motorcycles that cause the inconvenience to walk along.	22	14.29
1.4	There are few governmental information points to provide the information to tourists; there are few tourist policemen; government officials cannot speak English very well and give the tourists wrong information that make the tourists confused.	18	11.69
1.5	There is no electricity in some tourist attractions.	15	9.74
1.6	Too many tourists make the tourist attractions so crowded; the parking areas are not sufficient.	13	8.44
1.7	Most hospitals are private ones that focus on providing services to foreign tourists and other tourists who have some money only.	3	1.95

In addition, it was found that the minority (29.0%) of the sample group presented the solutions relating to this aspect while the rest (71.0 %) did not present it (Table 4.25).

**Table 4.25 Number and Percentage of Tourist Attraction Solutions Related to Infrastructure****(Total = 400)**

<b>Solutions</b>	<b>Number</b>	<b>Percentage</b>
Presentation	116	29.0
No Presentation	284	71.0

The solutions mostly presented were: there should be more trashes and public toilets at tourist attractions and roads, while they must be always kept clean (43.44 %); Roads, direction signs, and traffic light system at every intersection should be maintained, and the electricity lights were set up along the roads and at every tourist attraction for safety of vehicle users (32.79%); More governmental information service centers should be set up and there were more tourist policemen. In addition, the officials who could speak English should be provided to give advice to tourists efficiently (12.29%) respectively. The details were as follow:

<b>Solutions</b>	<b>Number</b>	<b>Percentage</b>
1.1 There should be more trashes and public toilets at tourist attractions and roads, while they must be always kept clean.	53	43.44
1.2 Roads, direction signs, and traffic light system at every intersection should be maintained, and the electricity lights are set up along the roads and at every tourist attraction for safety of vehicle users.	40	32.79
1.3 More governmental information service centers should be set up and there should be more tourist policemen. In addition, the officials who can speak English should be provided to give the advice to tourists efficiently.	15	12.29

	<b>Solutions</b>	<b>Number</b>	<b>Percentage</b>
1.4	The municipality should provide public bathrooms and restaurants with reasonable prices for tourists who may not have high power purchase.	7	5.74
1.5	There should be an international airport.	4	3.28
1.6	The number of cars and tourists should be controlled, and the mass transportation system is taken to solve the traffic problems in the city.	3	2.46

**Environment:** according to the data collection, it was found that the minority (38.25 %) of the sample group presented the problems related to this aspect while the rest (61.75 %) did not present it (Table 4.26).

**Table 4.26 Number and Percentage of Tourist Attraction Problems Related to Environmental**

	<b>Problems</b>	<b>Number</b>	<b>Percentage</b>
			<b>(Total = 400)</b>
	Presentation	153	38.25
	No presentation	247	61.75

However, since the questions were open-ended, the sample group was able to offer more than one answer. Environmental aspects mostly presented were: garbage was scattered in tourist attractions such as waterfalls, sea, and beaches, as well as roadsides (41.77%); tourists traveling by boat to many islands usually dropped garbage into the sea that certainly polluted the sea (18.35 %); some beach areas, the seawater was dirty due to the oil scum (15.19 %) respectively. The details were as follow:

<b>Problems</b>	<b>Frequency</b>	<b>Percentage</b>
1.1 Garbage is scattered in tourist attractions such as waterfalls, sea, and beaches, as well as roadsides.	66	41.77
1.2 Tourists traveling by boat to many islands usually drop the garbage into the sea that certainly pollutes the sea.	29	18.35
1.3 At some beach areas, the seawater is dirty due to the oil scum.	24	15.19
1.4 Stall and pushcart merchants do not keep the cleanness, they always throw the garbage and the waste water on the floor. Such actions make the floor sloppy, dirty, and bad looking.	18	11.39
1.5 Thai tourists usually have some food at tourist attractions such as on the beaches, on the side of waterfalls. Moreover, they do not drop the garbage in the provided trashes, so such waste causes the smash and dirtiness.	9	5.70
1.6 There are too many cars and motorcycles in tourist attractions that cause the noise and air pollution.	5	3.17
1.7 There are many vagabond dogs at beaches and roads that undermine the scenery.	4	2.53
1.8 Bathing water is muddy and run slightly.	3	1.90

In addition, it was found that the minority 31.25 % of the sample group presented the solutions related to this aspect while the rest (68.75 %) did not present it (Table 4.27).



**Table 4.27 Number and Percentage of Tourist Attraction Solutions Related to Environment**

**(Total = 400)**

Solutions	Number	Percentage
Presentation	125	31.25
No presentation	275	68.75

The solutions mostly presented were: recycle and separation of garbage should be campaigned. (28.58 %); the waste treatment should be more performed and controlled, rules, regulations, and punishments were set up and complied to any persons who did the pollution (18.04%); since the beach scenery was the most important source of Koh Samui to attract the tourists, so there should always be the campaigns to keep the beaches clean while there should be a sign to advise and remind tourists to jointly keep the tourist attractions clean (15.79 %) respectively. The details were as follow:

	<b>Solutions</b>	<b>Number</b>	<b>Percentage</b>
1.1	Recycle and garbage separation should be campaigned.	38	28.58
1.2	The waste treatment should be more performed and controlled, rules, regulations, and punishments are set up and complied with any persons who did the pollution.	24	18.04
1.3	Since the beach scenery was the most important source of Koh Samui to attract the tourists, so there should always be the campaigns to keep the beaches clean while there should be some signs to advise and remind tourists to jointly keep the tourist attractions clean.	21	15.79
1.4	Trashes should be provided on the tourist boats traveling from and to many islands. Rules and regulations to prohibit tourists to drop garbage into the sea were announced, and any tourists who violated such rules and regulations must be punished severely.	15	11.28
1.5	Local people must be encouraged to have the concerns of keeping the environment and nature clean, and preserving them.	12	9.02
1.6	Hotel, accommodation, and other business entrepreneurs must be responsible for keeping the cleanness of their own locations and surrounding areas, and they must pay for the cleanness costs to the local area.	12	9.02
1.7	Direct responsible entities should be set up to take care of, control, and solve the land, water, and air pollution.	11	8.27

**Tourist Safety:** according to the data collection, it was found that the minority (23.25 %) of the sample group presented the problems related to this aspect while the rest (76.75 %) did not present it (Table 4.28).

**Table 4.28 Number and Percentage of Tourist Attraction Problems Related to Tourist Safety**

(Total = 400)		
Problems	Number	Percentage
Presentation	153	38.25
No presentation	247	61.75

However, since the questions were open-ended, the sample group was able to offer more than one answer. Tourist safety aspects mostly presented were: there were a lot of motorcycles running with high speed (37.89 %); traffic lights were not working completely (24.21%); tourist guides usually pressed the tourists to purchase some goods because they would get some commission from the goods sale. (22.11 %); respectively. The details were as follow:

Problems	Number	Percentage
1.1 There are a lot of motorcycles running with a high speed.	36	37.89
1.2 Traffic lights were not working completely.	23	24.21
1.3 Tourist guides usually pressed the tourists to purchase some goods because they would get some commission from the goods sale.	21	22.11
1.4 Cost of living was high, and some service charges such as rental cars, regular bus, and taxi were not fair for tourists.	12	12.63
1.5 There were not inspection from policemen at night.	3	3.16

In addition, it was found that the minority (25.25 %) of the sample group presented the solutions related to this aspect while the rest (74.75%) had no presentation. (Table 4.29).

**Table 4.29 Number and Percentage of Tourist Attraction Solutions Related to Tourist Safety**

(Total = 400)		
Solutions	Number	Percentage
Presentation	101	25.25
No Presentation	299	74.75

The solutions mostly presented were: reduction of accidents from using the vehicles (50.96 %); there must be control and punishments for some entrepreneurs who asked the prices of goods and services so high such as bus, taxi and rental car (22.11 %); responsible officials must seriously punish any persons who broke the traffic rules (16.35 %) respectively. The details were as follow:

Solutions	Number	Percentage
1.1 Reduction of accidents from using the vehicles should be considered by: - Speed or cars and motorcycles must be controlled. - The motorcycle drivers must wear the crashhelmets. - Entrepreneurs of rental cars must advise the drivers on rules and regulations of driving and using the roads at Koh Samui.	53	50.96
1.2 There must be control and punishments for some entrepreneurs who asked the prices of goods and services so high such as bus, taxi and rental car.	23	22.11

	<b>Solutions</b>	<b>Number</b>	<b>Percentage</b>
1.3	Responsible officials must seriously punish any persons who broke the traffic rules.	17	16.35
1.4	There must be the traffic lights at every intersection that are working all day and night.	11	10.58

**Activities in Tourist Attractions:** according to the data collection, it was found that the minority (12.75 %) of the sample group presented the problems related to this aspect while the rest (87.25 %) had no presentation (Table 4.30).

**Table 4.30 Number and Percentage of Tourist Attraction Problems Related to Activities**

	<b>Problems</b>	<b>Number</b>	<b>Percentage</b>
			<b>(Total = 400)</b>
	Presentation	51	12.75
	No presentation	349	87.25

However, since the questions were open-ended, the sample group was able to offer more than one answer. Activities in tourist attractions mostly presented were: Diving to see the coral reef may destroy it if lack of good control (36.85 %); there were too many entertainment locations declining whereas there were many bar girls, prostitutes (rental wife) until Koh Samui became the prostitute trading zone and location of lusting after women more than the location selling the natural (35.09 %) respectively. The details were as follow:

	<b>Problems</b>	<b>Number</b>	<b>Percentage</b>
1.1	Diving to see the coral reef may destroy it if lack of good control.	21	36.85
1.2	There were too many entertainment locations declining whereas there were many bar girls, prostitutes (rental wife) until Koh Samui became the prostitute trading zone and location of lusting after women more than the location selling the natural resources.	20	35.09
1.3	There were so many activities on the island that, sometimes, they were not necessary and not friendly to the environment, but the activities of studying the culture and local people's ways of life were few.	9	15.78
1.4	Some activities were highly charged, and some tourist attractions were not outstanding enough to be announced as the island tourist attractions such as overlap stone, and Buddha footprint etc.	7	12.28

In addition, it was found that the minority (9.0 %) of the sample group presented the solutions related to this aspect while the rest (91.0 %) had no presentation (Table 4.31).

**Table 4.31 Number and Percentage of Tourist Attraction Solutions Related to Activities**

<b>(Total = 400)</b>			
	<b>Solutions</b>	<b>Number</b>	<b>Percentage</b>
	Presentation	101	25.25
	No presentation	299	74.75

The solutions mostly presented were: diving to see the coral reef should be performed with serious measures of prevention and control, which were complied by both tourists and entrepreneurs so that they did not cause any damages to all livings and coral reef in that area (51.35 %); there should be tourist activities to study tradition and local culture, and tourism unique should be conserved. In addition, some activities that were not friendly to nature should be studied and be not organized on the island such as golf, which is a fashionable sports (29.74 %) respectively. The details were as follow:

Solutions	Number	Percentage
1.1 Diving to see the coral reef should be performed with serious measures of prevention and control, which are complied by both tourists and entrepreneurs so that they did not cause any damages to all livings and coral reef in that area.	19	51.35
1.2 There should be tourist activities to study tradition and local culture, and tourism unique should be conserved. In addition, some activities that were not friendly to nature should be studied and be not organized on the island such as golf, which is a fashionable sports.	11	29.74
1.3 Bars, pubs, and other entertainment locations were as important as other activities, but they must be controlled properly so that they were not the assembly of drugs and sex.	5	13.5
1.4 Business entrepreneurs should have meetings to share their opinion and to improve tourist activities.	1	2.7
1.5 Some activities were risky to danger; for example, climbing the cliff that there should be some officials standing for the first aid in that area for tourists who faced the accidents.	1	2.7

## 4.5 Research Findings by In-depth Interview

Having complete information concerning the tourist attraction environmental problems, the researcher studied the problems related to policies on environmental management by means of in-depth interview with three sample groups staying in Natorn Community, Chaweng Community and Lamai Community, including 9 local persons, 6 community leaders, 9 entrepreneurs, 5 government officials, namely, Deputy Director of the Tourism Authority of Thailand on the southern part – Region 5, the officer of the Tourism Cooperation Center of Koh Samui, the Director of the Division of Health and Environment, tourist inspector, and the mayor of Tambon Koh Samui. The interviewing can be concluded and categorized into the following issues:

### 4.5.1 Past to Present Environment

Over 100 years, changed cannot be denied or evitable. In the past, local people lived in the native community; they were give-and-take with each other; local people's main careers were fishery and the coconut farming. These have made Koh Samui being the center of trading the coconut since 1931, and its international trading destination was Singapore while its domestic trading destination was Bangkok. The coconut was carried by big steam ships operated by East Asiatic Co., Ltd. Moreover, the ships traveling on the route of Bangkok-Suratthani-Koh Samui were also carrying the coconut and other necessary goods for bargaining. Although Koh Samui is far from Bangkok, it has the own potential of growth, and is always able to maintain its local community, sympathy, and kindheartedness given to neighbors and strangers.

Around the year of 1985, it is the year of beginning due to the growth of communication and education opportunities of population at Koh Samui in the past, Koh Samui became the most potential investment location invested by both local and general investors. Together with social costs, that is, the natural attractiveness and local people's friendship, they have attracted more tourists to visit there, which can be deemed the commencement era of tourism at Koh Samui. Therefore, businesses in



relation to tourism have been arisen out, including many aspects of modernity in order to respond the demands of tourists and local people.

Consequently, changes in all facets have been made including economical, social, and cultural ones. Reliance on each other and sharing has been turned to be businesses and trading. The abundance of natural resources and natural attractiveness have been eradicated for the business interest only. Besides, the past calmness has been reducing whereas problems of immigration, drugs, and crime have been flowing into the community, and the western culture dominates both the materials and thoughts of the community, which cause the problems to the community later.

#### **4.5.2. Environmental Problems Caused by Tourism**

##### **1) Physical Aspect**

More number of tourists arouses more business competition; hence, local and general investors, as well as foreign investors come to Koh Samui to seek for their personal profit without any consideration of following impacts. The current important problems cover:

Interloping of public areas, including beaches, mountains, forests, and rivers in forms of filling the interloping areas to construct buildings, resorts, and bungalows. Moreover, the sand and soil are dig for the personal profit. Besides, the documents of title of public areas have illegally been issued to investors and businessmen, as well as politicians. For the villagers, they have also interloped forest areas for doing farming, doing gardening, and building their residence.

Beach tourist attractions have been reserved and blocked by hotel and bungalow entrepreneurs for their own tourists only. General tourists cannot access those areas; consequently, public beaches are full of a great number of tourists who have medium-low income and visit Koh Samui as big groups. This group of tourists has fully consumed the natural beauty without any concerns of maintenance and preservation, which is another important problem.

City mapping laws have not taken for enforcement, so the area zoning has not been arranged such as the accommodation zone, the business zone, the tourism zone, and the entertainment zone. This makes the city untidy and disordered. Furthermore, the construction styles of big and small buildings, as well as stalls and sheds cannot be determined, and they caused the nasty scenery.

Tourist resources and buildings in tourist attractions have been destroyed such as pavilions, benches, toilets, resting points; the garbage is scattered; the water is released uselessly on paths and make the locations decline, dirty, and unattractive that are the results of selfishness of entrepreneurs and tourists. Nevertheless, it is obvious that Thai tourists have complied with rules, regulations, and disciplines of tourism less than foreign tourists.

## **2) Infrastructure**

Koh Samui is ready, in a level, in respect of the land, air, and water communication because of the traveling convenience inside the country and from other countries. In addition, the communication in the island is convenient due to convenient roads: main roads around the island are concrete roads in 8 meters of width. The electricity system is provided around the island. However, due to increasing number of tourists each year, this causes the insufficiency of some infrastructure such as:

Fresh water for consumption because the pipeline system must depend on the water flowing from the waterfalls. Currently, the amount of water is so little due to the destruction of forests, so it is not raining when it is the time, and the rivers and the streams are dry up. In contrast, more fresh water is needed due to unlimited number of tourists, and tourists activities such as spa, and golf, which are new products promoted for the tourism of Koh Samui by the Ministry of Tourism and Sports. Such activities require much more fresh water than usual, and made Koh Samui lack the fresh water in the end of 2003, and caused the great difficulties and direct impacts to local people as a result of tourism. No planning of water allocation

encourages many general people and entrepreneurs to drill for the underground water that leads to geographical effects now.

Public toilets – there are not adequate public toilets in tourist attractions; the existing toilets are dilapidated and dirty with the smash because they are out of maintenance and responsibilities of users, which consist of entrepreneurs in that area and tourists.

Garbage containers/trashes, both at tourist attractions and on the roads, are not sufficient and dirty, which cause the bad looking because of the plenty of tourists and the garbage collection by the municipality officials is not regularly done.

Governmental health centers are not ready in respect of health personnel and modern medical instruments, and the services are not provided well enough. Therefore, when tourists with low income have the accidents or get sick, they will not get the convenience. But, foreign and Thai tourists who have medium to high income will not face such problem because there are 2 private hospitals there and another 2 private hospitals are under construction.

Other tourism public utilities such as:

- Information service and tourist information centers are few.
- Direction signs and tourist symbols are not clear enough.
- Tourist policemen are few and their capabilities of speaking English are not good enough, which make the solutions for tourists delay.

### **3) Environmental**

This matter is the most severe problem of Koh Samui now and in the future. The related problems involve:

Garbage at tourist attractions, on the beaches, waterfall areas, and roads. The garbage is scattered, particularly plastic bottles, plastic bags, aluminum cans, beer bottles, and foam boxes, which are thrown out by tourists and local people. Now, the amount of garbage on Koh Samui is 75 tons/day, and the amount of garbage will be increasing for 80% within 4 years commencing from the year of 2000. Consequently, the garbage is not all gathered thoroughly everyday; some garbage is left behind that makes the garbage containers and the surrounding areas dirty, smelly, and bad-looking.

Polluted water, since there is no good wastewater treatment system, polluted water has been released into the sea. But, in the past, the amount of polluted water is little; the impacts to the sea were not severe. But, now, the polluted water from other business locations such as hotels, restaurants, etc. all is released into the sea and the pru (place of keeping the fresh water), especially Pru Chaweng where a lot of business sites are located. Importantly, this polluted water is not treated before being released into the sea. These actions severely affect the conditions of seawater and fresh water sources.

#### **4) Tourists Safety**

Tourist policemen not only have direct duties of caring and responsibilities for safety or security of tourists, they also have the duties of caring and preventing the resources relating to tourism. But, due to several problems, but on the reverse side, only main duty of tourist policemen is to protect the tourists' safety. However, Koh Samui is still a calm tourist attraction with little danger if compared with the number of tourists staying there.

Problems faced by tourists involve:

- + - Asset losses – this problem is most found with 83 claimants.
- Criminal cases about 7 persons/month
- Tourists' drug problems, but they are few.

- Other problems are that the tourists are deceived by entrepreneurs in buying the goods and services charged in higher prices than usual such as the jewelry shops, regular buses, taxis, restaurants. Sometimes, the problems are spread out to be the quarrel and the body attack.

### **5) Activities in Tourist Attractions**

For activities in tourist attractions, it was found that the general people and most officials have not paid much attention to details of activities in the area whether the forest journey, the cliff climbing, sitting on the elephant's back, or stopping the speed-boat too close to the coral reef line. These activities absolutely affect the environment and the ecological system. Most people just learn that these activities are favorable amount tourists, especially diving to see the coral reef. But, if there are too many tourists, the coral reef will be eradicated and die eventually, and this situation has already occurred in some areas. For golf and spa activities that have been much set up and need so much fresh water, the government officials and the general people have not had any serious solutions on this effect yet. As a result, Koh Samui has faced the shortage of fresh water, sea and mountain environment has declined. Thus, we can see that these activities have greatly affected the environment of tourist attractions of Koh Samui.

#### **4.5.3. Solutions by Responsible Entities**

##### **1) Physical Aspect**

The main problems of this matter involve the interloping of public areas, and the illegal issuance of documents of title, which are so difficult to be solved. However, the local administrators and the government officials thought that the local municipal laws and the city mapping should be implemented, but it is impossible in practice because the municipality has not any power to control the amount and styles of buildings if the building owners file for approval and undertake in compliance with the municipal laws. In addition, most persons who break the laws

by interloping public areas and issuing the illegal documents of title usually have the politic power or they are local, general, and foreign influential persons. Hence, no one dares to protest or object because he/she fears the influence or danger he/she may face. However, the municipality has tried to control and undertake as it should be and under its scope of duties and authorities. Now, some persons are brought to trial. But, for the forest interloping by villagers, the municipality has tried to limit the interloped areas not to be expanded more, and agrees that those interloped areas are used for doing farming and doing gardening only, not for their residence.

## **2) Infrastructure**

The municipality has considered that the shortage of fresh water is the severe problem to be urgently solved, so it asked the government for the 50 million Baht budget to expand the sizes of Pru to keep the fresh water. Now, there are three Pru on Koh Samui: Pru Chaweng totaling 433 rai; Pru Na Muang totaling 222 rai; and Pru Kra Jood totaling 42 rai.

## **3) Environmental**

As mentioned earlier, the sharp increasing amount of garbage becomes the most severe problem of Koh Samui now. This leads to the problems of garbage handling starting from the gathering procedures, eradication methods, and areas of eradication methods. In the past, the garbage was eradicated by burying, but this method always led to the social controversy. Accordingly, the government solved this controversy by constructing 2 incinerators with the capacities of burning 70 tons of garbage/day/an incinerators. The incinerators have worked since 1999 and only one incinerator would be run each time. However, the uses of incinerators also cause the problem of dioxin released more than the amount set up by the standard criteria. Moreover, there must be some areas to bury heavy ash got from the garbage burning. It is expected that, in the year 2009, new areas must be provided for burying the ash because the current areas cannot be used anymore.

Regarding the release of polluted water, three wastewater treatment stations were built up: Natorn Station, Chaweng Station, and Lamai Station. These three stations were constructed by the Department of Public Works, the Ministry of Internal Affairs with over 200 million Baht budget. Nevertheless, the problem is that the construction has taken over 7 years, but the station has still been out of work, so the wastewater has not been treated yet and the polluted water is still released into the sea.

Moreover, for the good environment, the training project to educate the students and the general people to handle the garbage was organized last year. For the year 2004, there are the planning for cleanness and city order as follows:

- Campaign project for keeping the locations clean.
- Project of cleanness maintenance and good order of food markets
- Project of cleanness maintenance and good order of the municipality
- Campaign project for cleanness maintenance
- Campaign project for cleanness maintenance on the occasion of the birthday of health establishment
- Project of organizing activities on the occasion of Thai Environment Day to enhance the King/Queen' prestige
- Project of ordering the merchants who peddle goods in public areas
- Project of improving the efficiency of handling the garbage in the municipal areas.

However, pursuant to the interview of related persons, they accepted that the arrangements of projects were successful in one level, but they were not satisfactory enough due to the lack of continuity and follow-up.

#### **4) Tourist Safety**

There were two important problems faced by direct responsible entities: personnel problem, and budget problem, which can be solved as follows:

Personnel – since the number of personnel is few if compared with the overall areas to be cared, so the government seeks for the cooperation group to participate in the training project and to cooperate with other agencies such as:

- Organizing the Project “Volunteer Tour” consisting of bus, restaurant, and tourist accommodation entrepreneurs so that they have the concerns of participation, and they are educated the primary legal knowledge, notices of adversity, prevention and carefulness of problems to affect the tourists’ safety, as well as the close watch for the deliberate act of sabotage.

This project has been given the good collaboration and the performance can be followed up, so the member permanent cards were made and distributed. During the festivals, these volunteers can be called to be additional inspectors without any costs.

- Organizing the Project of helping persons encountering the accidents in the sea so that the trained persons are able to provide the first aid to injured persons.

- Coordinating with many entities such as:

- Immigration Department in order to have the information of foreigners who have been staying at Koh Samui for the investigation and the special attention to prevent the sabotage, and to take care of the very important persons.

- Provincial policemen to be additional manpower to quell the crimes.

- Sea policemen to help the persons having the accidents in the sea.

Budget – Since Koh Samui has not its own budget to perform any activity must ask for the central budget, which takes so much time prior to each approval. Therefore, this year, the tourists’ safety was planned by asking for the budget from the municipality of Koh Samui.

### **5) Tourist Activities**

Undertaking activities relating to tourism that needs the license is one of controlling measures. The entrepreneurs must ask for the approval from related



agencies, which will be investigating the readiness of instruments, devices, and personnel of that activity.

#### **4.5.4 Problems on Environmental Management and Policy**

##### **1. Politics**

Since, now, the power and the authority is decentralized, and each local area is able to allocate its own budget, so the local politicians have more power than the government officials. Therefore, local policies must respond to the politicians' policies, starting from local politicians to national ones.

##### **2. Entities and Personnel with Direct Responsibilities**

- The government has not the particular environmental agencies, so the work relating to the environment is usually left to be cared by other agencies. Moreover, officials who have direct responsibilities have not knowledge on the environmental matters, so the work on the environment has been forgotten, there are no development plans to support the environment thoroughly.

- Government officials usually concentrate on their own profit more than the public interest. This rises to the occasion of investors and influential persons to seek for more personal benefit.

##### **3. Cooperation between Governmental Entities and the General People**

- Separation of responsibilities among the ministries is sometimes overlapped while the scope of work to be performed by each responsible division is not clearly outlined. In addition, there is not good collaboration of governmental entities. When the problems break out, there will not be direct responsible divisions because the scope of work and responsibilities are related with several entities. In particular, the environment in popular tourist attractions such as Koh Samui, there are many responsible entities, namely, the Department of Environmental Promotion, the Department of Pollution Control, the Harbor Department, the Local Municipality, and the Tourism Authority of Thailand.

- Lack of public participation and good concerns by local people.

#### **4. Public Relations**

- Due to the new separation of responsibilities by ministries, the personnel's scope of work is not clear, that is, the personnel in local areas have not clear information regarding the central policies, the overlap of projects arranged by either local entities or the central entities that have separately made the public relations. These actions made the tourists, entrepreneurs, and the general people confused.

**5. There were no supporting entities for work efficiency and consistency**, that is, each entity performs its individual work and goes forward only. For example, now, the Tourism Authority of Thailand has a duty to make public relations regarding Thailand's tourism only, but this entity has neither central divisions or local divisions that have direct duties and authority of being responsible for planning and setting up the measures of preventing the environmental problems in the tourist attractions.

## CHAPTER 5

### DISCUSSION

Nowadays, the tourism business becomes a main business of the country because it can generate huge income for the country each year. As a result, related entities have to promote Thailand's tourism by making public relations, both domestic and international; consequently, more tourists have been visiting Thailand every year. In the mean time, the tourism has effects to natural environment of tourist attractions as well. This problem forces the entities that have direct duties and responsibilities to outline measures and prevention guidelines so that those tourist attractions do not decline. It can be seen that the concepts concerning conservation of natural environment for tourism are applied. However, the reduction of effects caused by tourism must rely on good collaboration by many parties, both governmental and private sectors, including good collaboration by general people and tourists. Nevertheless, well-known tourist attractions have still been visited by a great number of tourists. If the huge number of tourists is not controlled, it will make those tourist attractions decline easily, and it is possible that the tourists will not desire to visit there again.

Therefore, in order to know whether that tourist attraction is still popular, or the favor to that tourist attraction reduces or not, the tourist opinions must be studied directly.

Nunnally stated that both opinion and attitude are presentation of thought concerning ourselves, and that opinion is also used to form the opinion and the knowledge. The research findings on tourist opinions on tourist attraction environmental problems at Koh Samui District, Surat Thani Province can explain that

individual factors affect the expression of different thought. The results of the study are presented as follows:

### **5.1 Levels of Tourist Opinions on Tourist Attraction Environmental Problems of Koh Samui District, Surat Thani Province**

According to the study, it was found that the levels of tourist opinions on tourist attraction environmental problems was high, which is not consistent with the determined assumption. The reason is that since every country all over the world has tried to open its country to attract foreign currency for its country development. Tourism is one of businesses that need few investments but can generate enormous income. By this reason, several developing countries have tried to open their countries by presenting tourist attractions that are full of natural pureness while the tourists are given more opportunities to consume natural beauty of many tourist attractions. Furthermore, general people also receive the information concerning conservation, and have more concerns of joint conservation of nature. These make the tourists have one level of demand for convenience in tourist attractions, and more tourists also desire that the nature is maintained. Hence, the high level of tourist opinions on tourist attraction environmental problems of Koh Samui means that Koh Samui must be remedied, improved and restored urgently so that Koh Samui does not decline and its attractive nature is maintained so long.

### **5.2 Factors Affecting Tourist Opinions on Tourist Attraction Environmental Problems of Koh Samui District, Surat Thani Province**

For the study of tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province, personal factors and encouraging factors are determined for the study. The results of the study are as follows:

### **Gender**

It was found that the different gender was not affected to tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province at the level of significance, which is not consistent with the determined assumption. The reason may be that, now, the general people begin to have more concerns about the conservation of natural resources. Both males and females have tenderness and desire to keep the valuable natural resources for themselves. As a result, the different genders do not lead to different opinions on tourist attraction environmental problems.

### **Nationality**

It was found that the different nationality affects the different opinions on tourist attraction environmental problems of Koh Samui, Surat Thani Province at the 0.05 level of significance, which is consistent with the determined assumption.

### **Age**

It was found that the different age was not affected tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province at the level of significance, which is not consistent with the determined assumption. The reason may be the release of information regarding the environment around the world that cannot block the general people's information perception. As a result, the individual belief and emotions are expressed. Therefore, the different age was not affected the opinions on tourist attraction environmental problems.

### **Occupation**

It was found that the different occupation was not affected the tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province, which is not consistent with the determined assumption at the level of

significance. The reason may be that, currently, the public relations and the campaigns for conservation of environment have been done widely, so the general people are likely to have concerns, to follow up, or have good attitude to conservation. This becomes the base of opinion and expression of thoughts equally. Therefore, the difference of occupation was not affected the difference opinions on tourist attraction environmental problems.

### **Education**

It was found that the different education was not affected the tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province at the level of significance, which is not consistent with the determined assumption. Although most of sample group completed bachelor degree (39.8%), the teaching and learning system has added knowledge about environment since the primary level, including the receipt of information about the environment outside the educational institutes, so the difference of educational was not affected the different opinions on tourist attraction environmental problems.

### **Average Income**

It was found that the different average income was not affected tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province at the level of significance, which is not consistent with the determined assumption. The reason is that, in this study, the sample group consists of both Thai and foreign tourists, who have different average income. It was found that Thai tourists average income in the range of Baht 12,001-30,000 are counted as high-income tourists whereas Thai tourists with the average income less than Baht 12,000 are counted as low-income tourists. However, foreign tourists with the average income of Baht 100,001 and up are counted as the high-income tourists whereas foreign tourists with the average income of Baht 30,001 – 70,000 shall be counted as the low-income tourists. Therefore, if considering the monthly average income of

each nationality, it was found that the sample group with the high income would have higher level of opinion than the sample group who have low income. Due to this reason, in overall, the different average income was not affected the opinions on tourist attraction environmental problems.

### **Duration of Staying Over Night**

It was found that the different duration of staying was not significantly affected tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province, which is not consistent with the determined assumption at the level of significance. The reason may be that the tourists staying at Koh Samui for several nights have enough time to visit many locations, both developed and undeveloped ones. Some locations are still so attractive because few tourists have visited there, so these places may impress the tourists. So if considered, overall, tourists thought that Koh Samui is still in the attractive condition. For the tourists who stayed at Koh Samui for only one night, they had little time to visit all tourist attractions by their limited time, so they have to visit the most popular tourist attractions such as Chaweng Beach, Lamai Beach, waterfalls, and diving to see the coral reef. These tourist attractions have been interloped by tourists and entrepreneurs more than other tourist attractions, so this group of tourists exactly encountered the congestion and decline. As a result, the different duration of staying was not affected the opinions on tourist attraction environmental problems.

### **Main Purpose of Traveling**

It was found that the different main objectives of journey was affected tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province at the 0.05 level of significance, which is consistent with the determined assumption.

### **Number of Visiting**

It was found that the different visiting times was not affected tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province at the level of significance, which is not consistent with the determined assumption. Most of the sample group visited Koh Samui for the first time (69.5%), so they could not compare the difference of the tourist attractions. But, the sample group who have visited Koh Samui for the second or third times, they could see the difference and changes, both in negative and positive ways. In the mean time, the sample group who has frequently visited Koh Samui because they may feel impressed with anything or any place on Koh Samui, they would not pay attention to other surroundings. Consequently, the difference of visiting time was not affected the opinions on tourist attraction environmental problems.

### **Forms of Visiting**

It was found that the different types of group visit was not affected tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province at the level of significance, which is not consistent with the determined assumption because Koh Samui is a tourist attraction for the recreation and the admiration of natural beauty that are promoted around the world, and there are the campaigns for the conservation of the environment at all corners of the world, so each tourist learns the information by himself/herself. Consequently, the different types of group visit were not affected the opinions on tourist attraction environmental problems.

### **Placing on Environmental Value**

It was found that the different emphasis on the environmental value was not affected tourist opinions on tourist attraction environmental problems of Koh Samui



District, Surat Thani Province at the level of significance, which is not consistent with the determined assumption because the tourists hardly pay attention or have concerns regarding the conservation of environment and the maintenance of surroundings so that they can sustain so long. It can be seen that some groups of tourists do not pay attention in rules and regulations of tourist attractions and they have still practiced as usual although they know that those actions are not correct. Therefore, the different emphasis on the environmental value was not affected the opinions on tourist attraction environmental problems.

### **Message Perception on Conservation of Natural Tourist Attractions**

It was found that the different message perception regarding to conservation of natural tourist attractions was not affected tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province at the level of significance, which is not consistent with the determined assumption because the sample group who have never received the information about the conservation of natural tourist attractions would have the higher level of opinion than the sample group who used to receive the information. This result of the study is consistent with Engle and Snell stated that the opinion is the expression of thoughts in form of words, is the conclusion based on the original knowledge. Therefore, the different message perception on conservation of natural tourist attractions was not affected the opinions on tourist attraction environmental problems.

### **Knowledge on Conservation of Natural Tourist Attractions**

It was found that the different knowledge about the conservation of natural tourist attractions was not affected tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province at the level of significance, which is not consistent with the determined assumption because the sample group who have high level of knowledge will apply their own knowledge for their consideration, as a result, their levels of opinion is high level. In contrast, the sample group who has

low level of knowledge have higher level of opinion than the sample group who have the medium level of knowledge. This result of the study is consistent with the Duncan's point of views. He stated that the opinion is the belief or the personal consideration. The opinion cannot be used to test the individual knowledge and we must accept that the general people will have different opinion. Therefore, the different knowledge about the conservation of natural tourist attractions was not affects the opinions on tourist attraction environmental problems.

### **5.3 Problems and Solutions Recommended by Tourists Concerning to Tourist Attraction Environment Problems of Koh Samui District, Surat Thani Province**

It was found that the sample group has high level of opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province. Such problems are caused by tourists, the general people, and officials, so they proposed the solutions, including the prevention measures to reduce the impacts of the tourism environmental problems as listed below:

#### **Physical Problems**

Pursuant to the interview by means of the questionnaire, it was found that, now, the most severe problem is no good city mapping in tourist attractions, which makes the city disordered. In addition, the public areas are interloped and the modern construction is emphasized more than the natural consistence. According to the in-depth interview, it was found that in order to take part in the tourism business, the investors have the investment and seek for their personal benefit without any consideration of following impacts, that is, they have tried to possess the existing natural resources as many as they could by investing the least but gaining the most profit.

Hence, the management leaders who has power and duties in the local administration must consider the importance of problems and must have management planning by setting up the strategies to prevent increasing problems in future. They may start from the short-term strategy for the 5-year period, the middle-term strategy for the 10-year period, and the long-term strategy for the 15-year period. Next, the city mapping must be set up: zoning is determined and the municipal law is enforced to control the construction of buildings and the construction forms are outlined so that the building structure is consistent with the surroundings and culture. The neighboring areas close to popular tourist attractions must not be damaged so that they can be used to support the expansion of those tourist attractions in the future. This method not only helps to improve the geographical scenery, it also prevents the construction that may destroy the nature and cause the nasty landscape. Besides, government officials must comply to the laws seriously, must not concentrate on the rewards and remuneration or their own interest more than the public benefit. Moreover, the general people must be encouraged to participate with the government to keep a close watch for the destruction of public assets.

### **Infrastructure Problems**

In accordance with the interview of the sample group who are local people, it was found that the local area is not still well prepared in several aspects such as electricity, and water, etc. because there are more tourists and business locations. As the submission of problems in the questionnaire by the sample group, it was found that the infrastructure problems that must be remedied involve the provision of the garbage containers, the repairs of roads, the improvement of the electricity system, and the construction of public toilets.

In this case, local responsible entities must have concerns about the existing infrastructure problems because the infrastructure system can show the capabilities of servicing tourists, and it must not have direct impacts to local people. For example, the roads must be repaired and maintained all the time for the convenience and safety.

The electricity system must be sufficient and working, and in case that there is a high demand of electricity during the tourist seasons and a great number of tourists are visiting, the infrastructure system must be good enough to serve these situations. The water system must be clean, healthy, and sufficient for the demands of general people and tourists. The garbage and rubbish collection, and the construction of public toilets must be efficient, both quality and quantity. Besides, the local area must be well prepared in respect of the personnel and the budget for the maintenance and care of public utilities in every tourist attraction so that they do not decline.

### **Environmental Problems**

The tourists thought that the current important problem of tourist attractions is the handling of garbage. This opinion is consistent with the interview of local people and related government officials who said that, now, Koh Samui has critical problem regarding the garbage, and it is likely that this problem will continue if the general people and tourists have not yet had concerns about the reduction of garbage. In addition, to-be-happening problem is the release the polluted water into the sea because there has not been the wastewater treatment system yet. This problem will affect the quality of seawater and beaches that are the essential products of Koh Samui.

Local responsible entities such as the municipality, the District Health, etc. must speed up the campaigns for the reduction of garbage amount, then, offer the public the knowledge about the garbage recycle because the garbage is the severe pollution of Koh Samui now. Moreover, there must be the primary measures to clean the wastewater before being released from houses and business locations into the sea, which will affect the condition of seawater, waterfalls, and rivers. However, although tourists take part in causing these pollution problems, the related governmental entities can organize many projects to arouse the cooperation among local people, entrepreneurs, and tourists to jointly take care of and conserve the surroundings of that tourist attraction. The most important thing is the encouragement of public people's

concerns so that they have the joint responsibilities in the society, desire to keep those local and community tourist attractions as their own assets, as well as to realize the value of good environment in tourist attractions. In addition, there must be the establishment of measures to manage, prevent, and increase the value of that environment by utilizing the tourist income to maintain and care the quality of environment, which, indirectly, will persuade more income to the community.

### **Tourist Safety Problems**

Both the sample group of tourists and the sample group of related local people had the same opinion that Koh Samui is quite a highly safe tourist attraction, especially safe from crime. But, the most fearful event is the road accidents due to the great amount of vehicles, the high speed of driving, the dilapidation of some sections of roads, including taking advantages by entrepreneurs in some areas of business.

All related entities working in relation to the tourist safety must focus on this problem because the safety is one of important factors that encourage the tourists' decision to visit any tourist place. If that tourist attraction is in the war crisis or its criminal statistics are high, that location will not be able to interest the tourists. Therefore, responsible officials in every division must have the controlling measures, as well as the serious punishments to any person who does the illegal actions although those actions are not serious because the criminal danger is so little, but the danger frequently happens involves the road accidents due to the great amount of vehicles, the high speed of driving, the dilapidation of some sections of roads, including taking advantages by entrepreneurs in some areas of business.

### **Activities in Tourist Attraction Problems**

The sample group considered that some activities were not appropriate to area condition such as golf course because this activity needs a great amount of fresh water while Koh Samui still lacks the fresh water. Some other activities have not the

guidelines of preventing the following impacts such as diving to see the coral reef, and climbing the mountain etc. In fact, the entrepreneurs of these businesses do not have much investment because they sell the existing natural goods that can fully generate the profit for them without any consideration of social impacts. Moreover, some portion of the sample group considered that the activities of studying the culture and ways of life of local people are still interesting and should be studied because Koh Samui is an over 100-year-old tourist attraction, but it gets less interest than the entertainment locations, which are being turned to be the prostitution.

Impact from tourism will be much or little depending on the amount and features of activities relating to the environment in that tourist attraction. Thus, responsible entities must focus on the activities undertaken to serve the tourists' demands more. However, the control must be categorized so that the supervision is consistent with each activity. For example, activities affecting the natural surroundings must be closely controlled and the punishments must be set up if they pollute the existing nature and affect the social costs. In case of activities that are risky such as climbing the cliff or experiencing many forms of adventures, there must be the efficient measures to prevent the accidents. For entertainment activities, the government officials must keep the close watch so that they are not the assembly of criminals, drugs, or sex. Moreover, some major activities that are not appropriate to the area condition should not be approved or, if it is inevitable, they should be controlled such as the golf course. In the mean time, we should place the emphasis on the activities that can pass on the history and the existence of the society from past to present for the pride of local people of Koh Samui. However, although we cannot avoid the environmental impacts caused by tourism, we are able to reduce the severe impacts by applying the sustainable tourism principles.

## **CHAPTER 6**

### **CONCLUSIONS AND RECOMMENDATIONS**

In accordance with the study of the tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province, the objective of this study is to study levels of opinion of tourists, the difference of personal and encouraging factors to the tourist opinions on tourist attraction environmental problems, and to study problems and solutions so that they are the proper guidelines for planning and setting up the measures of preventing the tourism environmental problems of Koh Samui District, Surat Thani Province. The data collection is performed by means of questionnaire and interview with 400 persons of the sample group. The results of the study can be concluded below:

#### **6. Conclusions**

##### **6.1.1 Demographic Factors**

In accordance with the study of the tourist opinions on tourist attraction environmental problems of Koh Samui District, Surat Thani Province, it was found that the characteristics of the sample group are female (55.50%), both Thai and foreign nationality, and the range of age is 25-32 (39.0%) and the average age is 33 years old. About 34.5% of the sample group is company official/employee, 39.8% completed bachelor degree, 30.5% gained the monthly income for 12,000 Baht and their average income is 62,468 Baht per month.

### **6.1.2 Visit Pattern Factors**

Pursuant to the study of visit pattern factors, it was found that the sample group has been staying over night at Koh Samui over 4 nights (49.5%) and the average period of staying over night is 7 nights. The main objective of this visit is for the recreation (80.3%). Most sample group (69.5%) visited Koh Samui for the first time and traveled there with their friends (48.0%).

### **6.1.3 Motive Factors**

According to the study of motive factors, it was found that the sample group focused on the value of environment in the moderate level (41.8%) and the average scores are 31.91. They used to receive the information about the conservation of natural tourist attractions from mass media (25.3%) and desired to receive the information about the conservation of natural tourist attractions from mass media (35.3%). Most of them (96.45%) desired to receive such information from the television while the others (3.55%) desired to receive it from the radio. About 31.7% of them had knowledge about conservation of natural tourist attractions in the moderate level and the average scores are 16.

### **6.1.4 Tourist Opinions on Tourist Attraction Environmental Problems**

The sample group of tourists had the opinions on tourist attraction environmental problems in high level (34.2%) and the average scores are 175.57.

### **6.1.5 Analysis of Correlation on Demographic and Motive Factors with Tourist Opinions on Tourist Attraction Environmental Problems by One-Way Analysis of Variance**

According to the analysis, it was found that the difference of nationality, average income, duration of staying over night, main purpose of traveling, placing on



environmental value, and knowledge on conservation of natural tourist attractions will lead to the different opinions on tourist attraction environmental problems at the 0.05 level of significance. But, the difference of gender, age, occupation, education, number of visiting, forms of visiting, and message perception on conservation of natural tourist attractions are not affected the tourist opinions on tourist attraction environmental problems at the level of significance.

#### **6.1.6 Analysis of Correlation on Demographic and Motive Factors with Tourists Opinions on Tourist Attraction Environmental Problems by Two-Way Analysis of Variance**

In accordance with the analysis, it was found that the overall independent variables involving the sex, nationality, occupation, educational, average income, main purpose of traveling, form of visiting, placing on the environmental value, message perception on conservation of natural tourist attractions, and knowledge about the conservation of natural tourist attractions affect the variance of dependent variables, which are tourist opinions on tourist attraction environmental problems, at the 0.05 level of significance. But, when analyzing each variable, it was found that the nationality and main purpose of traveling affect the variance tourist opinions on tourist attraction environmental problems at the 0.05 level of significance. But, the variables including sex, occupation, educational, average income, forms of visiting, placing on the environmental, value, message perception on conservation of natural tourist attractions, and knowledge on conservation of natural tourist attractions are not affected the tourist opinions on tourist attraction environmental problems. When analyzing each variable, it was found that the gender, duration of staying over night, and number of visiting are not affected the variance of tourist opinions on tourist attraction environmental problems as well. According to the statistic test, the independent variables and co-variance can explain the correlation affecting tourist opinions on tourist attraction environmental problems at the 0.05 level of significance.

## 6.2 Problems and Solutions

Subject to the open-ended questionnaire and the in-depth interview, the opinions towards the problems, and solutions of environmental problems can be concluded as follows:

**Table 6.1 Conclusion of Problems and Solutions**

<b>Problems</b>	<b>Solutions</b>	<b>Responsible Units</b>
<p><b>Physical Aspect</b></p> <p>Scenery is not good-looking due to lack of city mapping system; the construction is not consistent with the environment; public areas are interloped.</p>	<p>There must be the short-term, middle-term, and long-term planning; city mapping system is applied; forms of construction are controlled and determined so that they are consistent with the environment.</p>	<p>Municipality, the Harbor Department, Province</p>
<p><b>Infrastructure</b></p> <p>There is no readiness in respect of roads, water and electricity systems, garbage containers, public toilets, and other public utilities at tourist attractions.</p>	<p>Roads must be repaired; electricity and water systems are sufficiently provided and qualified; public toilets and garbage containers are provided; and there are sufficient public utilities at tourist attractions.</p>	<p>Municipality</p>
<p><b>Environment</b></p> <p>Crisis of garbage and release of wastewater into the sea.</p>	<p>There are campaigns to reduce the amount of garbage; the wastewater is initially recycled</p>	<p>Municipality, the Department of Pollution Control,</p>

<b>Problems</b>	<b>Solutions</b>	<b>Responsible Units</b>
	before being released into the sea; local people are encouraged to have the public participation and concerns.	the Department of Environmental Promotion, the District Health

**Table 6.1 Conclusion of Problems and Solutions** (continue)

<b>Problems</b>	<b>Solutions</b>	<b>Responsible Units</b>
<p><b>Tourist Safety</b></p> <p>Accidents on roads, entrepreneurs took advantages on prices of goods.</p>	<p>Amount of vehicles and speed of driving are controlled; persons who break the rules must be punished seriously.</p>	<p>Tourist policemen, Provincial policemen, traffic policemen, the municipality, the Department of Pollution Control</p>
<p><b>Activities in Tourist Attractions</b></p> <p>Some types of activities are not suitable to area conditions; there are not prevention measures while doing some activities to avoid the impacts; there are a lot of entertainment locations that are not in good conditions.</p>	<p>Approval must be controlled and the entrepreneurs who operate the business causing the bad effects to the nature must be punished; activities in entertainment locations must be closely controlled not to be the prostitution locations.</p>	<p>Municipality, Province, the District Health, the Ministry of Internal Affairs</p>

### 6.3 Recommendations from Research Findings

**Physical Aspect:** There must be the strategy to prevent the future environmental problems that must involve the short-term, middle-term, and long-term strategy; the city mapping is begun; area zoning is determined; there are municipal laws to control the construction of buildings; forms of construction are determined to have the buildings consistent with the environment and culture that will help to adjust the scenery and to prevent the construction that destroys the nature and cause the nasty scenery. In addition, the government officials must comply to the laws seriously; they must not concentrate on their personal interest, but public one; and the general people must be encouraged to participate with the government to keep the close watch on the destruction of public assets.

**Infrastructure:** Roads must be repaired and maintained all the time for the convenience and safety; the electricity system must be sufficient and working; the water system must be clean and healthy and sufficient for the demands of the general people and tourists; the collection of garbage and rubbish, the construction of public toilets must be efficient, both the quality and quantity aspects. Moreover, the local area must be well prepared in respect of the personnel and budget for the maintenance and restoration; and the public utilities in every tourist attraction must be maintained so that they do not decline.

**Environment:** There are campaigns for the reduction of garbage; giving the knowledge of recycle. Besides, there must be measures of initial wastewater treatment for the wastewater released from houses and tourist locations before it is released into the sea. However, the governmental entities must set up projects to encourage the cooperation between local people, entrepreneurs, and tourists so that all jointly take care of and maintain the environment of those tourist attractions. The most important thing is that the general people's concerns must be encouraged to have the joint responsibilities for the society and to feel that they are the owner of those local and community tourist attractions.

**Tourist Safety:** The government officials not only prevent the incidence of criminal problems, they also have to control and take care of other dangerous events that may occur; for example, road accidents due to the great number of vehicles, high speed driving, some sections of roads are damaged, and the entrepreneurs take advantage of tourists. Therefore, every responsible government entity must have the measures of control and the serious punishments for any person who breaks the rules although their wrong actions are not so serious.

**Activities in Tourist Attractions:** These activities must be closely controlled with the punishments if those activities caused bad effects to the existing nature and the social costs. Moreover, there must be efficient measures to prevent the accidents for adventurous activities. According to the entertainment activities, the government officials must keep the close watch to them so that they do not become the assembly of criminals, drugs, or prostitutes. In addition, some types of major activities that are suitable for area conditions such as the golf course should be controlled while the activities that convey the history and existence of the society from past to present should be focused to be the pride of local people at Koh Samui.

#### **6.4 Recommendations from the Researcher**

The environment is the cost of tourism industry. When the tourism industry has been developed, this environment must be utilized more. The impacts or causes of problems to the environment, society, and tourism industry include the selfishness, carelessness, no discipline, and blindness to the situation of tourists and entrepreneurs who have interloped that environment. Furthermore, the problems break out due to the inefficiency of government officials, lack of good cooperation of related entities, the loophole of laws that give the businessmen the opportunities to seek for their own interest easier. However, whenever each tourist attraction is destroyed, all related

parties must find out the preventive measures to avoid worsen impacts that may affect the overall tourism industry.

From this study, the researcher has some recommendations as the guidelines of solving the problems and obstacles regarding the tourism environmental problems of Koh Samui District as follows:

1. Responsible entities in the area must study and prepare the reports indicating the decline and damages, as well as propose the solutions and prevention, including the restoration of those tourist attractions by sequencing the severity of problems and possibilities of solutions so that the solutions are consistent with the existing budget and/or asking for the central budget.

2. Provisions stipulated in the constitution regarding the decentralization to local areas must be complied while the general people are given the opportunities to be participating in the development and the conservation of natural resources in order to build up the potential of development and to upgrade the quality of life of local people. Therefore, related government entities and personnel must be involved for planning for the management and development.

3. Serious legal measures are applied, which include the government officials who enforce the laws and the entrepreneurs who use the loophole of laws to do wrong actions or keep out of laws to seek for their own interest without consideration of long-term bad effects. In addition, the general people and tourists must be controlled to comply with social rules and regulations more.

4. Knowledge and understanding are released to the public so that the general people have good attitude and encourage them to have concerns of the society and feel that they are the owner of those local and community tourist attractions.

5. The general people's participation is encouraged so that the power of local communities is strengthened such as the Conservation Club so that they become the alliance to keep the close watch, conserve, and develop tourist attractions.

6. There is the city mapping to develop the geographical scenery; the interloping of natural locations is controlled; and public areas are limited for careful uses by the public.

7. Number of tourists is controlled so that it is suitable for the potential of tourist attractions.

8. There are releases of news and information, and the public relations concerning the environmental situations through the mass media in order to encourage and interest the society.

9. Advertisements and public relations regarding tourist attractions are reduced during the restoration period of environment until those tourist attractions are ready and turned to have sufficient potential to serve tourists again.

10. Standard safety is set up, not only the safety from crime, but also other public utilities such as roads, vehicles, basic infrastructure system, and activities organized in tourist attractions.

## **6.5 Recommendations for Further Research**

1. Opinion of the entrepreneurs and the general public towards the tourist attraction environmental problems should be conducted to learn their opinion about this problem, including the level of their opinions.

2. Local people's participation in the management of community environment is conducted in order to know the general public's roles in the participation in the management of community environment, including related problems and obstacles.

3. Social environmental problems of Koh Samui District, which is the favorable tourist attraction of tourists all over the world, should be conducted in order to learn the changes and social conflicts, as well as the advantages and disadvantages of those events.

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**Questionnaire for Tourist Opinions on Tourist Attraction Environmental Problems: A Case Study of Koh Samui District, Surat Thani Province**

Dear, Sir / Madam:

Attached please find the questionnaire designed for the research “Tourist opinions on tourist attraction environmental problems: a case study of Koh Samui district, Surat Thani province”, which is part of a Master’s degree program. The information you give will be useful to any tourism development in Koh Samui and in other areas.

Please, fill in the blank and check the items you prefer. All responses will remain confidential.

Thank you for your cooperation

.....  
(Chuanpit Thiwaphan)

## Questionnaire for the Thesis

ID

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on

**Tourist Opinions on Tourist Attraction Environmental Problems: A Case Study  
of Koh Samui District, Surat Thani Province**

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**Section 1****Questionnaire Related to Tourist Demographic Data**Direction

For each of questions below, please mark / to indicate your answer or fill out the answer that is relevant to the fact. Please answer all questions.

1. Gender                     Male                     Female
2. Nationality             Thai                     Others(please specify)  
.....
3. Age.....Year (the remaining over 6 months will be counted as a year.)
4. Occupation  
 Pupil/ Student                     Government/State Enterprise Official  
 Business Owner/ Commerce    Company Official/ Employee  
 Others (please specify).....
5. Highest educational level  
 Elementary Graduate    High School Graduate/Vocational Certificate  
 Higher Vocational Certificate/ Diploma    Bachelor Degree  
 Post Graduate
6. Average income per month.....Baht
7. Duration of staying over night.....Day(s)

**Section 2 Information Related to Tourist Visit Pattern**Direction

For each of questions below, please mark / to indicate your answer or fill out the answer that is relevant to the fact. Please answer all questions.

1. What is your main objective to visit Koh Samui?  
 Recreation                     Studying the nature and observe the operation  
 Studying the art and culture/tradition/and ways of life in the community  
 Religion activities    Business    Others (please specify).....
2. How many times have you visited here? .....
3. Which of the following is the type of your visit?  
 Visiting alone                     Visiting with your friend(s)  
 Visiting with your family/ relatives    Visiting with the group tour  
 Visiting with your department    Others(please specify).....
4. If you have an opportunity to visit Koh Samui again, would you come back here?  
 Yes                     No                     Not sure  
Because.....  
.....



**Section 3 Information Related to Environmental Value**

**Direction** For each of questions below, please mark/to select either “Yes”, “Not sure” or “No” to indicate your answer. Choose only one answer for each question and please answer all questions.

Questions	Your Attention		
	Yes	Not sure	No
1. The beautiful nature persuades you to visit.			
2. You chose to visit the natural tourist locations highly favored by most people without any attention to their congestion or their pure nature.			
3. You prefer relaxing by visiting many natural locations such as islands, waterfalls, seas, mountains, and caves.			
4. For each trip, you do not need luxurious and too many facilities.			
5. You are impressed by clear and clean sea, and the white long beaches.			
6. You always like to collect shells and corals and take them home.			
7. You always like to buy the souvenirs made from natural materials such as shells, corals, stuffed animals, etc. from each particular tourist location.			
8. Except the clear and cool waterfalls, you think that the shadiness under the trees, tidiness, and no big buildings located around the waterfalls are also important.			
9. You think that the tourist ancient relics located are as important as beaches and waterfalls.			
10. You are interested in learning the nature/ways of life/ and local culture of the locations you visit.			
11. You have never littered the garbage/ scrape/ destroy the tourist locations you visit.			
12. You have not paid attention to rules and regulations of that particular tourist location.			



Questions	Yes	No
3. The main objective of the eco-tourism is to develop the tourists' conscious mind and comprehension so that they could provide benefit to the environment.		
4. Characteristics of good eco-tourism are: following the regulations set for each particular tourist location/ paying attention to the importance of information, learning while traveling to increase the knowledge and become aware of the environment conservation.		
5. Beach conservation means the uses of beach areas for the highest and continual economical benefit to reply to tourists' demands and to attract tourists.		
6. Constructing the accommodations and shops along the beautiful tourist beaches should be done for tourists' benefit and convenience.		
7. Constructing the accommodations or other buildings in the natural tourist locations must focus on their modernity, luxury, and convenience to attract the tourists.		
8. Building the roads along and so close to the beaches is one of facilities provided to the tourists.		
9. Tourists' irresponsibility causes the deterioration of natural tourist locations.		
10. The destruction of natural tourist locations affects the tourist businesses.		
11. Good principles of tourism are "do not leave anything except your footsteps and will not collect anything except your memory and impression."		
12. Offering the knowledge about nature and environment to the tourists is not essential because they want to relax and enjoy only.		
13. Advertising and persuading a number of tourists into visiting a natural tourist location each time provide good effects to that tourist place.		
14. Selling the souvenirs, made from the natural resources that should be reserved, can generate the income to tourist locations.		
15. Keeping the tourist locations clean is the duty of officials or the persons in charge.		
16. Controlling the number of tourists can help the proper support for tourists in each tourist location.		
17. Using the areas for activities and businesses should be properly set; for example, setting the areas for service places, shops, and valuable areas to have order and attractiveness.		
18. Adapting the environment or buildings without caring the original nature will decline the natural balance.		
19. Construction to be consistent to the environment and to show the local unique is not essential because, now, the competition focuses on the modernity and convenience only.		
20. Nature, shadiness, and attractiveness of tourist locations are the key factors to attract the tourists.		

**Section 6 Opinion on Tourist Attractions Environment**

Direction For each following question below, select the answer that best describes your opinion and please answer all questions.

Questions	Strongly agree	Agree	Not sure	Dis-agree	Strongly disagree
<b>Physical Aspects</b>					
1. Some tourist attractions, including beaches, waterfalls, and ancient buildings are, naturally, little perfect.					
2. Some tourist attractions, including beaches, waterfalls, and ancient buildings are encumbered and cause the bad scenery.					
3. Setting the land uses for activities and businesses; for example, setting up the accommodation zones for tourists, service places, shops-stalls, and valuable areas as a part of city mapping, is proper, nice-looking, and in good order.					
4. Open and clear beach areas should be increased for more natural attractiveness.					
5. The viewpoints are not suitable, and the utilization of natural surroundings is little.					
6. The tourists are little impressed with having the swim at the waterfalls, and the utilization of waterfall tourist attractions is little.					
7. You are impressed by the utilization of tourist beaches located so closely to your accommodation.					
8. Some hotels, resorts, bungalows trespass the beaches.					
9. Tourist accommodations are not beautiful, modern, and convenient.					
10. Some natural tourist locations are out of repairs.					
11. Food sheds, peddlers, goods stalls and souvenir stalls are congested and out of order.					
12. Some structures or buildings are not associated and consistent to the conditions of natural tourist locations.					

What is/are your suggestion(s) ?

.....  
 .....  
 .....

Questions	Strongly agree	Agree	Not sure	Dis-agree	Strongly disagree
<b>Infrastructure</b>					
1. Many structures at tourist locations such as roads, car parks have been maintained and in good conditions.					
2. Communications by road, water and air are so convenient.					
3. There are good roads connecting every tourist location.					
4. There are lights provided along the roads built around Koh Samui that wipe out terror while driving at night.					
5. There are some problems regarding the water and electricity in your accommodation.					
6. A lot of restrooms are provided at all tourist locations and they are clean without any stench.					
7. On Koh Samui, there are good communication facilities such as telephone, post, electronic media, etc.					
8. The signs and directions are fully provided on the roads around the island.					
9. Information Service and Tourist Information Centers are fully provided for tourists.					
10. Some tourist locations are not clean enough. Waste buckets/garbage bins are not sufficient for tourists.					
11. There are enough modern and equipped nursing homes to provide services to the tourists on the island.					

What is/are your suggestion(s) ?

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Questions	Strongly agree	Agree	Not sure	Dis-agree	Strongly disagree
<b>Environment</b>					
1. The seawater in some tourist attractions is not quite clear and is full of garbage.					
2. The beaches are clean and there is not littering garbage.					
3. The sea and beaches are still attractive and naturally virgin.					
4. The food peddlers at the beaches cause food leavings, garbage, and untidiness.					
5. Your accommodation zone and neighboring areas are cleanly maintained without any garbage/ rubbish, and stench.					
6. The waterfalls are not suitable to swim.					
7. The tourist waterfall areas have been fully maintained without any littering garbage or stench.					
8. The waterfall tourist attractions have not been cared, so they are encumbered, full of scrawl, or the trees are destroyed.					
9. The tourist ancient remains have been maintained, and restored without any scrawls.					
10. Food shops located at the tourist waterfalls or ancient remains are small and they do not care of hygiene that partly cause the untidiness.					
11. A great number of tourists cause the traffic jam in the tourist locations and using a lot of vehicle causes the noise and air pollution.					
12. Along the roads around the island and the roads connecting to the tourist locations, they are clean and there is not any garbage.					
13. All tourist locations have naturally been attractive, clean and unpolluted.					

What is/are your suggestion(s) ?

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Questions	Strongly agree	Agree	Not sure	Dis-agree	Strongly disagree
<b>Tourist Safety</b>					
1. Safety is a reason of your decision to visit Koh Samui.					
2. You have no fear for this visit although you have learned the crimes met by some tourists previously visited here.					
3. You can feel the life and asset safety throughout your visiting period at Koh Samui.					
4. You think that the tourist policemen should provide the tourists the information/ brochures regarding the ways to protect themselves and their assets.					
5. All accommodations and tourist locations are safe.					
6. There are no enough safety systems for some activities such as cliff climbing, diving, etc.					
7. You can do the activities all day and even all night.					
8. You can drive to anywhere in Koh Samui even at night.					
9. You can feel the friendship given by local people.					
10. You are sure of standard prices and services of goods.					
11. Traveling by bus is safe, both in respect of services and fares.					

What is/are your suggestion(s).?

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.....

.....

Questions	Strongly agree	Agree	Not sure	Dis-agree	Strongly disagree
<b>Activities in Tourist Attractions</b>					
1. Except swimming, sunbathing and other outdoor activities such as sitting on the elephant’s back, touring in the forest, diving, jet skiing, bicycling, and spa some activities are not consistent with the environment of Koh Samui neither sufficient for the number of tourists.					
2. Golf is an outdoor sport that does not fit to Koh Samui because it wastes the natural resources, particularly the fresh water.					
3. Other services such as internet café/computer game shops, which can be easily found at Koh Samui, are apparently contradictory to tourist locations focusing on nature like Koh Samui.					
4. Scuba diving and snorkeling to see the corals are well planned and controlled not to deteriorate the corals.					
5. There are too many night activities such as bar beers, pubs, and entertaining sources and they are not in good conditions.					
6. Activities of learning local life are now perfect and need not to be supported by the government or related persons.					

What is/are your suggestion(s). ?

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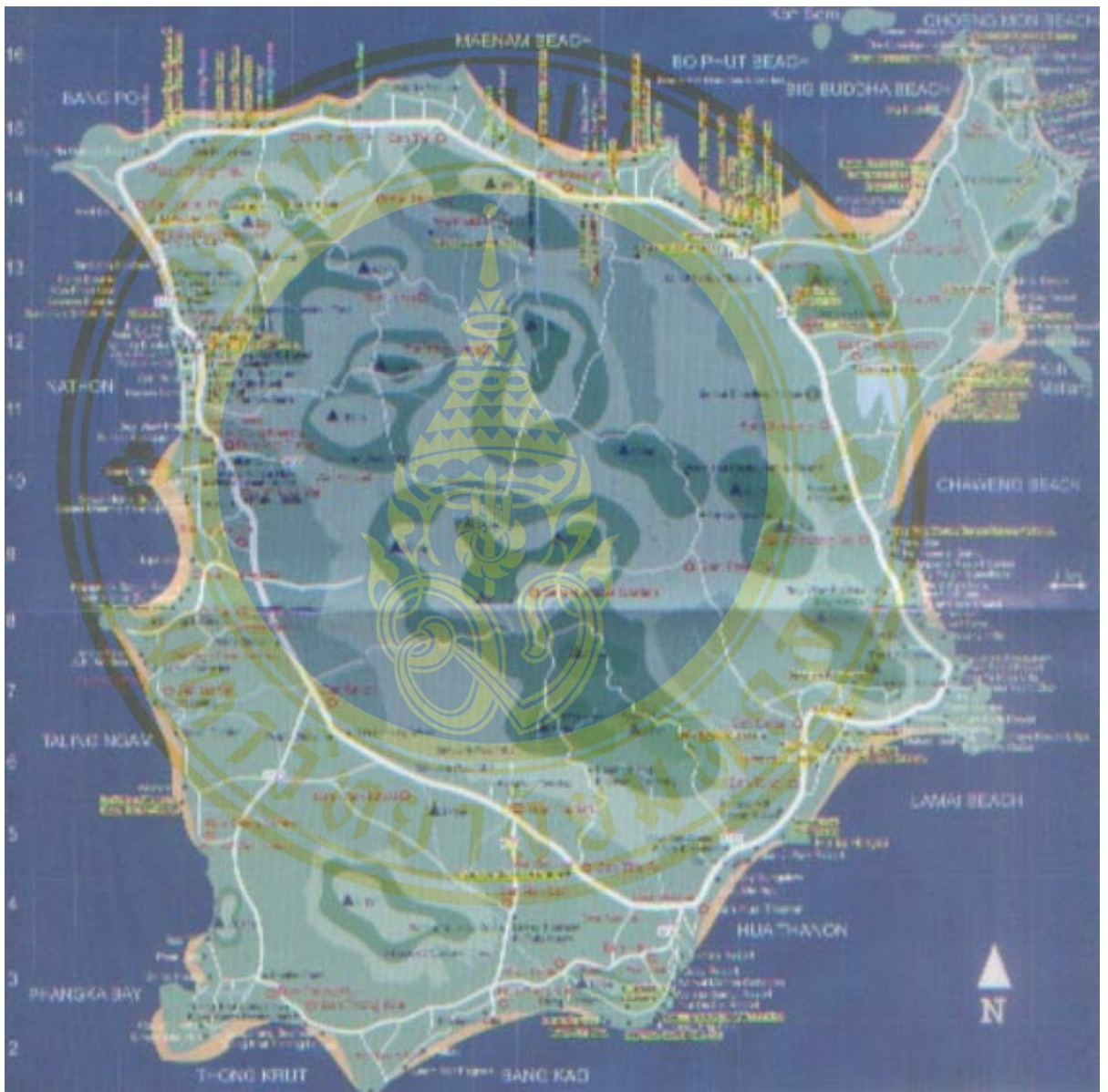
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### **Outline of In-depth Interview Form for Qualitative Research**

1. Past to present environment in Koh Samui
2. Environmental problems caused by tourism
3. Solutions by responsible entities
4. Problems on Environmental Management and Policy





## INFORMATION OF KOH SAMUI

### 1. GEOGRAPHY

Located in the Gulf of Thailand, some 80 kilometres east of Surat Thani province. Samui is Thailand's third largest island (after Phuket and Koh Chang), covering an area of 247 square kilometers. Roughly rectangular in shape, the four sides are defined by coastlines that present contrasting scenes, from long stretches of sand to quiet rocky coves. The interior is different again with high rugged hills covered in dense greenery. Then there is the wider picture, which sets Samui as the largest among an archipelago of some 80 islands, the vast majority uninhabited and untouched by modern development.

### 2. HISTORY

Samui's ancient history is shrouded in mystery. Influences can be found from as far afield as India and the ancient Khmer empire of what is now Cambodia. In the mid – 19<sup>th</sup> century a wave of Chinese farmers arrived on the island from Hainan province, and settled at the village of Hua Thanon. Their colorful festivals are still enthusiastically practiced. When the first western travelers fell under Samui's spell in the 1970's, they found a peaceful life of fishing and farming going on much as it had for centuries. But as word got out, the island began a phase of rapid development to become the top international destination it is today

### 3. ECONOMY

A marvelous fertility blesses the island of Samui and the sea around it. For generations, harvesting the fruits of the sea and cultivating the coconuts that grow in such profusion provided the islanders with a life of plenty. Samui is said to grow more coconuts per square metre than anywhere on earth – ypu'll often hear of it referred to as “ the coconut isle ”. Now Samui's fortune is its beauty, and the island is blossoming with a new prosperity thanks to the hundreds of thousands of visitors who come to witness Samui's legendary charms.

#### **4. ISLAND PEOPLE**

People from the south of Thailand have a distinct character – talking fast and straight, wearing sarongs and eating hot, spicy food loaded with coconut and chilies. But it is for their friendliness and easy – going manner that the 35,000 Samui islanders are particularly famous – the result of living in a plentiful tropical paradise! Samui islanders are rightly proud of their heritage, and eager to offer a warm welcome to visitors.

#### **5. TOURIST ATTRACTIONS**

##### **5.1 Beaches**

Outstanding feature of Koh Samui is many classically beautiful beaches that around the island. The renowned areas are Chaweng beach, Lamai beach, Menam beach, Bophut beach, Cherngmon beach, Tongyang beach, etc.

##### **5.2 Wat Laem Saw (Laem Saw Temple)**

Features a delightful ornate chedi that cover with gold ceramic. Inside to house the holy relics.

##### **5.3 Wat Sam Ret (Sam Ret Temple)**

There are more than 80 years old Buddha's footprint which bring from Myanmar. Moreover, the church made from coral house numerous Buddha images.

##### **5.4 Hin ta – Hin yai**

At the southern end of Lamai beach, the grandeur of nature is also paralleled by some nature oddities. Two of Koh Samui's popular sights with a believe-it-or-not appeal include an eight-headed coconut tree, apparently a most unusual freak of nature, and a rock formation resembling male and female genitalia.

## **5.5 Waterfall**

5.4.1 Hin lat waterfall is located at the end of a 2 kilometre jungle trail. Pretty rather than grand, its stream of water cascades over rocks to form a delightful natural swimming pool beneath. In addition, pipe-water come from Hin lat falls.

5.4.2 Namuang 1 waterfall is altogether more dramatic as its waters plummet 30 metres down a rocky staircase before tumbling into a pool.

5.4.3 Namuang 2 waterfall, an imposing curtain of water set amid peaceful woodland. Pleasant picnic spots throughout the year, all three falls are at their best in December or January when they are swelled by the annual rains.

## **5.5 Wat Phra Yai**

Wat Phra Yai is not a temple in strict terms, lacking the characteristic preaching and ordination halls. Rather, it is a shrine, erected in 1972 as a place on the island where Thais could make merit, an important practice in the expression of Buddhist faith.

## **5.6 Phra Tat Hin-Ngoo**

Phra Tat Hin-Ngoo or Wat Sila-Ngoo houses the holy relics in 1955 and in 1962 King Bhumipol and Queen Sirikij to travel to pay homage.

## **5.7 Phra Bhutabat Khao-le**

There are 4 Buddha's footprint

## **5.8 Wat Lamai**

This temple is nearly 200 years olds. Chedi houses the holy relics from Sri-Lanka in 1982. The attraction is the place that collected the old things

## **5.9 Spa**

Given the splendid natural setting, coupled with the wealth of tradition Thai health practices, it is hardly surprising that Samui is a popular retreat for getting the body and mind into shape. Health spas, ranging from the last word in pampered luxury to back-to-nature simplicity, have mushroomed around the island in recent years, reviving many time-honored treatments.

Fast gaining a reputation as a health-orientated destination, Koh Samui's natural surroundings complement the emergence of several spa resorts. These centres offer a range of services to rejuvenate the mind and body, from herbal steam baths to traditional massage.

### **5.10 Accessible to Diver and Snorkeling**

Diving is a passport to a new universe, a blue and weightless undersea kingdom of breathtaking vistas and fabulous creatures. World – class diving locations of Ko Tao and Ang thong Marine National Park.

Easy, cheap, healthy and great fun, the clear, calm waters around Samui offer excellent snorkeling.

### **5.11 The Butterfly Garden**

### **5.12 Snake Farm**

### **5.13 Monkey Show**

## 6. TRANSPORTATION TO KOH SAMUI

### 6.1 By train

Departure from Hua Lampong station, Bangkok in evening to Pun Pin station, Surat thani in the morning and then go by bus to ferry pier.

### 6.2 By bus

There are air and non-air condition bus from Bangkok to Koh Samui many times per day and a ten-hour ride from Bangkok

### 6.3 By air

Bangkok airways commenced direct flights from Bangkok to Koh Samui nearly 10 flights a day. Beside this, there are directed flight from Koh Samui – Phuket – Koh Samui and U Taphao – Koh Samui – U Taphao; moreover, there is international route between Koh Samui to Singapore.

### 6.4 By Boat

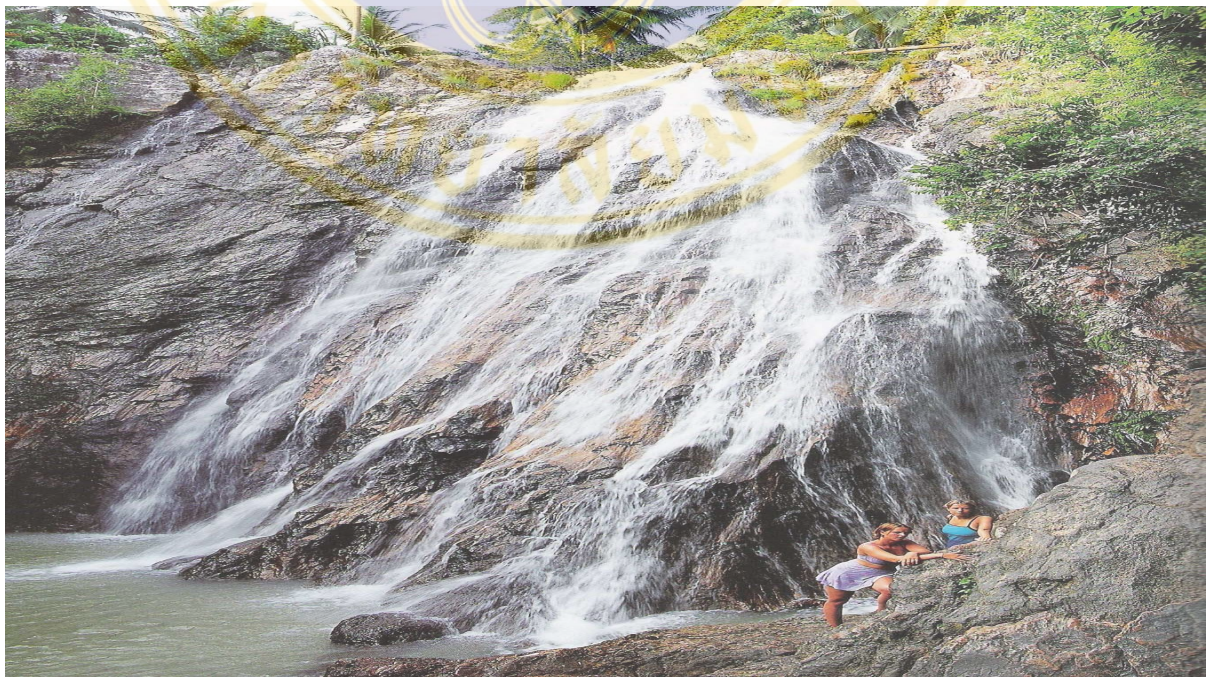
6.4.1 Ferry: There are 2 companies navigate to Koh Samui which 7 times a day for each company and take around 1 - 1.30 hours.

6.4.2 Express boat: There are twice a day from Surat Thani at 08.00 am. and 02.00 pm., take for 2.30 hours to arrive at Koh Samui

6.4.3 Night boat: Departure from Surat Thani at 11.00 pm., arrive at Koh Samui 05.00 am.



***The Fantastic Clear Sea, White Sand and Land of Coconut  
at Koh Samui, Surat Thani Province***



***“Na-muang WaterFull” the Most Famous Tourist Attraction  
at Kho Samui, Surat Thani Province***

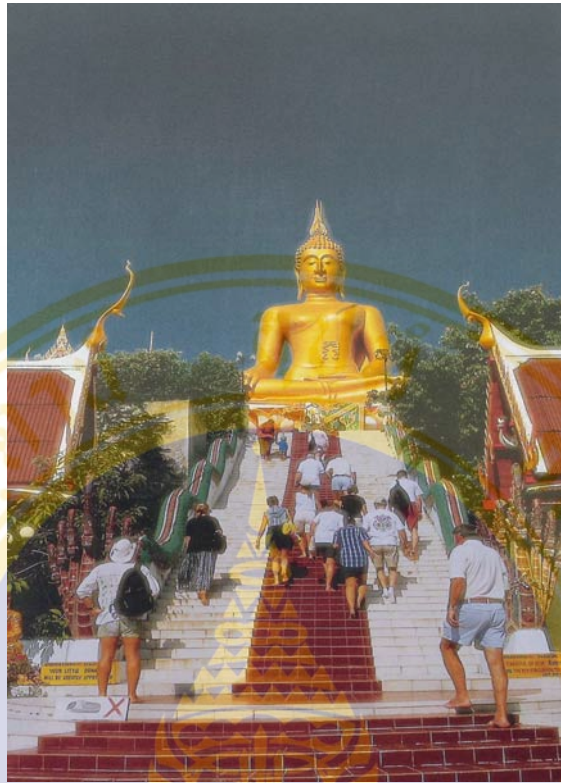




***“Ang Thong Marine National Park” with Its Limestone Cliffs,  
Lush Forest Interiors and Sandy Beaches***



***“Hin Ta-Hin Yai” the Natural and Miracle Architecture of the Island***



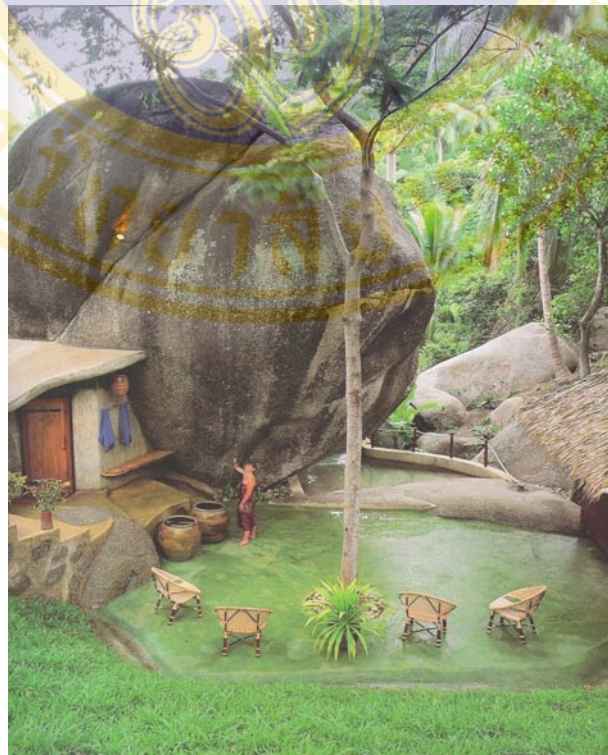
***Big Buddha Image at Wat Phra Yai, Koh Phan***



***Mongkeys Training for Agricultural Activities  
Being Rather Exited in Tourism Route***



***Elephant Trekking***



***“Spa” Being the Most Attraction to Tourists at Koh Samui***



*Some Public Area Being Invaded for Tourism Business*



*New Look of The Beaches Surrounded the Island*



***Forest Deconstruction at the Island***



***Illegal Holding of Land Use in Public Area of the Island***



*Public Construction at Some Tourist Attractions Being Always Out of Repair*



*Critical Condition of Garbage*



*Some View Points of Public Toilet*



*Some Garbage Containers Need More Clean*



***Wastewater Released to the Sea without Treatment***

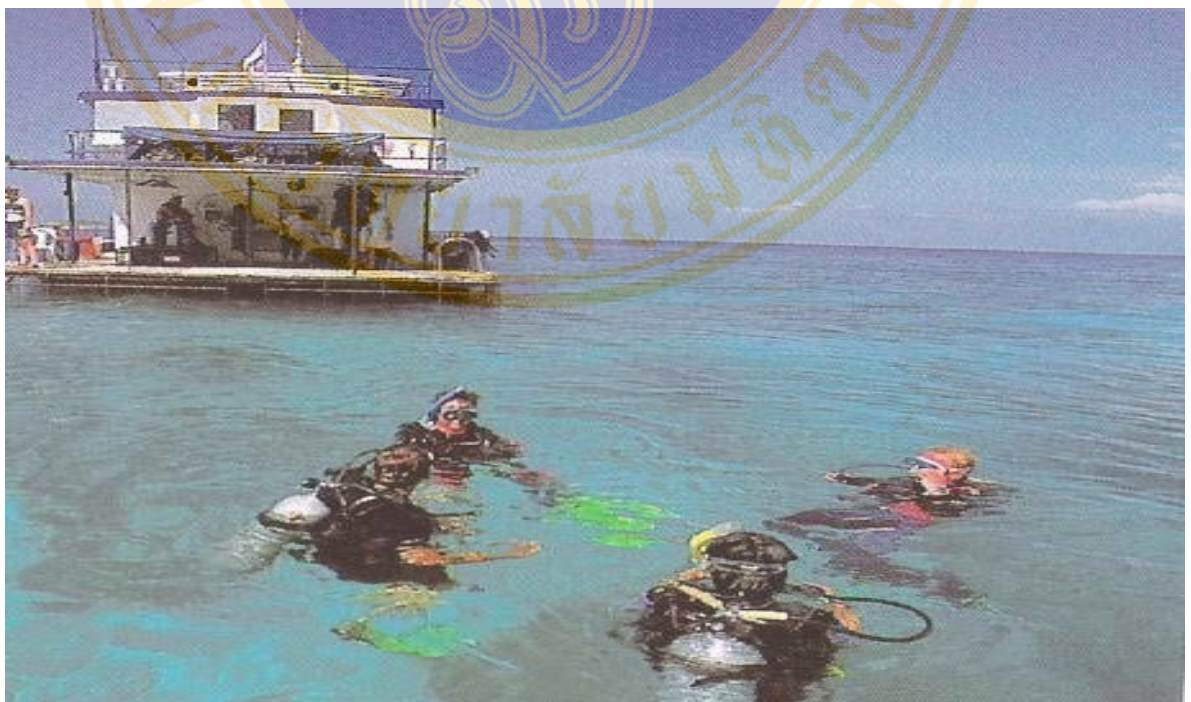


***Community Wastewater Always Flowing Directly to the Sea***





*Motorcycles Being the Causes of Traffic Accidents*



*Negative Impacts from Scuba Diving and Snorkeling Can Be More Seen at Koh Samui, Surat Thani Province*

## BIOGRAPHY



<b>NAME</b>	Mrs. Chuanpit Thiwaphan
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