

**POTENTIAL ASSESSMENT OF AGRO-TOURISM
IN THAWI WATTHANA DISTRICT,
BANGKOK METROPOLIS**

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THE DEGREE OF MASTER OF SCIENCE
(TECHNOLOGY OF ENVIRONMENTAL MANAGEMENT)
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Thesis
entitled
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IN THAWI WATTANA DISTRICT,
BANGKOK METROPOLIS**

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Warunee Ketsa-ard

POTENTIAL ASSESSMENT OF AGRO-TOURISM IN THAWI WATTHANA DISTRICT, BANGKOK METROPOLIS

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ABSTRACT

A study of the agricultural tourism potential in the Thawi Watthana District, Bangkok Metropolis was conducted to improve and optimize the potential of the agriculture sites.

The in-depth interviews and observations in 8 agriculture sites in the Thawi Watthana District were carried out to evaluate their agricultural tourism potential. A small group discussion was also arranged to determine the agricultural tourism development guidelines. According to the analysis, 63% of agriculture sites got a high agricultural tourism potential score, and only 37% of agricultural sites got a low score. In the overall evaluation scores, all agriculture sites possessed high potential for connection, proximity to main tourism sites, site safety, and infrastructure. The low potential aspects were direction signs, tourist information services, and tourism activities, which all required improvement. In summary, the agricultural tourism potential of agriculture sites in the Thawi Watthana District was high according to the evaluation.

The small group discussion in agricultural tourism development yielded the following action items: develop Tourism promotion knowhow and supply a budget supported by a government agency, build car parks, toilets, direction signs, and promote tourism activities. These are all needed to increase the number of tourists as well as the income from agricultural product sales. According to the study, the community possessed both the potential and the willingness to run agricultural tourism, as well as provide an attractive agricultural resource for tourists.

In summary, the agricultural tourism potential of agriculture sites in the Thawi Watthana District was high according to the evaluation. Agricultural tourism promotion knowhow and a budget should be provided to help organize tourism activities.

KEYWORD : POTENTIAL ASSESSMENT/ AGRO-TOURISM/ THAWI WATANA DISTRICT/ TOURISM PROMOTION AND DEVELOPMENT

112 pages.

การประเมินศักยภาพการท่องเที่ยวเชิงเกษตรในพื้นที่เขตทวีวัฒนา จังหวัดกรุงเทพมหานคร
 POTENTIAL ASSESSMENT OF AGRO-TOURISM IN THAWI WATTHANA DISTRICT,
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บทคัดย่อ

การศึกษานี้มีวัตถุประสงค์เพื่อประเมินศักยภาพการท่องเที่ยวเชิงเกษตรของพื้นที่เกษตรกรรมในเขตทวีวัฒนา จังหวัดกรุงเทพมหานคร และเพื่อค้นหาแนวทางในการเพิ่มศักยภาพพื้นที่เกษตรกรรมตามความเหมาะสมของแหล่งเกษตรกรรมนั้น ๆ

ผลการประเมินแหล่งเกษตรกรรมโดยใช้วิธีสัมภาษณ์เชิงลึกและการสังเกตแหล่งเกษตรกรรมจำนวน 8 แห่ง รวมทั้งจัดประชุมกลุ่มย่อยเพื่อหาแนวทางพัฒนาการท่องเที่ยว พบว่า มีแหล่งเกษตรกรรมที่มีผลการประเมินศักยภาพรวมในระดับสูงถึงร้อยละ 63 มีศักยภาพรวมในระดับต่ำเพียงร้อยละ 37 สำหรับการประเมินผลในภาพรวม พบว่า มีศักยภาพสูงในด้านความเชื่อมโยงความใกล้ชิดกับแหล่งท่องเที่ยวหลัก ด้านความปลอดภัยของแหล่งเกษตรและด้านสิ่งอำนวยความสะดวกพื้นฐานตามลำดับ และศักยภาพต่ำที่จะต้องปรับปรุงในด้านป้ายบอกทางเข้าชมแหล่งท่องเที่ยวเชิงเกษตร ด้านการบริการข้อมูลแหล่งท่องเที่ยว ด้านการจัดการด้านกิจกรรมการท่องเที่ยว ข้อมูลจากการประชุมกลุ่มย่อยพบว่า ควรได้รับการส่งเสริมทั้งด้านความรู้และงบประมาณจากภาครัฐ ในการจัดตั้งศูนย์บริการนักท่องเที่ยว การจัดหาพื้นที่ลานจอดรถ ห้องน้ำ การจัดทำป้ายบอกทาง และกิจกรรมการท่องเที่ยว เพื่อให้สามารถรองรับนักท่องเที่ยวได้มากขึ้น และเกษตรกรมีรายได้จากการขายสินค้าการเกษตรมากขึ้น โดยพบว่า ชุมชนมีความพร้อมทำการท่องเที่ยวเชิงเกษตร อีกทั้ง มีทรัพยากรการเกษตรเป็นสิ่งที่ดึงดูดใจนักท่องเที่ยว

สรุปได้ว่า แหล่งท่องเที่ยวเชิงเกษตรในเขตทวีวัฒนา มีศักยภาพระดับสูง จึงสมควรได้รับการส่งเสริม สนับสนุนในด้านต่างๆ ทั้งด้านความรู้และงบประมาณในการทำกิจกรรมท่องเที่ยวชุมชน

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CHAPTER I

INTRODUCTION

1.1 Source and significance of the issue

Thailand has been agricultural-based society for a long time. It has abundant agricultural sites having diversity of resources. The area has been used for farming, planting and gardening such as growing perennial plants, flowers and fruits etc., the estimated total areas are around 320.69 million rai (Thailand Institute of Scientific and Technological Research, 2000: 2-1). Type of agriculture depends on how they earn their living in each area, so the agricultural crops are different and diverse either in kinds and taste. Agricultural products are exported to various countries to earn a huge amount of national incomes. Therefore, it creates occupation, builds revenue and economic stability to the country. Moreover, agricultural culture caused by local wisdom reflects community's way of life, culture, customs and traditions which are descended through generations. All of these are so meaningful and valuable that should be conserved as national treasures.

With the fact that the family economic status has changed, i.e. higher living cost and increasing of agricultural operation cost, also the price of the agricultural products is controlled by the consumption, the agriculturists must try to increase their income. Some have to sell the farmland to the industry. The changing natural environment causes negative impact to agricultural area. As a result, agricultural culture has been changed as well.

On the other hand, tourism plays an important role to the economic system as it is one of the biggest service industries. In Thailand, 2005 tourism brought about 3.67 trillion Baht total income, domestic tourism alone made about 3.34 trillion Baht. Thus, tourism affects national revenue and employment in other production lines (Office of the National Board of Economic and Social Development, 2007-19-24). The Government realizing the importance of tourism, therefore, set up the Strategy to

Develop Thailand Tourism 2004-2006. The Development of quality of products and serviced tourism to be in compliance with the standard has been planned.

Agro-tourism is an interesting tourism into which it introduces tourists to observe the agriculturists, directly join various kinds of agricultural activities e.g. planting of vegetables, crop plants, flowering plants and ornamental plants. These activities enable tourists to see the difference of the agriculture such as tools and equipment in from seeding and planting to harvesting and packing for marketing. It is a source of agricultural knowledge and experience and leisure as well. The participation of tourists builds a good relationship among tourists and local people and a good impression that makes them would like to re-visit the site.

Agro-tourism is an alternative in sharing income to and among the community. It makes agriculturists earning extra income from their regular performance without having to change the career. Agro-tourism reduces the volume of migration (Tourism Authority of Thailand, 2000) and helps conservation of agricultural career, as well as community ways of life, previous culture and tradition. Agricultural background will be sustainable maintained (Pongsan Pongthong, 1999:3). It helps increasing of tourism resources based on the use of present agricultural resources as the fundamentals. Agro-tourism creates a chance for agriculturists to participate in the process of agriculture in real life, thus, they can protect the use of their own local resumes which helps reduction of resources deterioration.

In Bangkok, especially on Thonburi side, an agricultural traditional life style can be seen, especially at Thawi Watthana District which is not far away from the central commercial zone. Local life style there goes along well with life in the capital which is the business center of the country. Houses are located along the canal. Most area is flat land with several connecting canals. The soil is abundant clay soaked fertile water, suitable for plantation of all kinds of crops namely fruits, vegetables, flowers and decoration crops. Different fruits are also available year-round. Here, more than 3,350 rai of the area is used for agriculture as following, 750 rai of paddy field, 1,500 rai of vegetable crops, 700 rai of orchid plantation, 280 rai of flowering plants and 120 rai of fruit plants (Narong Ritkamron, Agricultural Unit, Office of Thawi Watthana District, February, 2009).

Promotion and development of tourism is different in each area, depending on the potential of the agricultural area. Its purpose is to obtain a guideline of tourism promotion and development which is well suited to the area and meets tourist's requirement. Also, to be in compliance with policy and strategy of tourism at all levels which focus on communities to be tourism sites.

In promoting and developing the agricultural area in Thawi Watthana District to be an agro-tourism site in order to increase the income to agriculturists and to increase natural tourism resources which nowadays, has been gradually destroyed, the assessment of agricultural area is necessary. The assessment's purpose is to be certain of which agricultural area has enough potential in protection and development of agro-tourism and which aspect is to be promoted and developed. From a primary survey, it is expected that agricultural area in Thawi Watthana District has enough potential in developing agro-tourism. It is also expected that the result of the study will be used as a guideline in the planning of tourism development to be in harmony with local area and community capacity.

1.2 Objectives of the research

1. To assess the existing potentiality of agro-tourism in Thawi Watthana District, Bangkok Metropolis.
2. To increase the potentiality of agro-tourism based on the suitable agricultural performance.

1.3 Scope of the research

The research is to assess the potential of agricultural area in order to promote agro-tourism by selecting agricultural areas in Thawi Watthana District, Bangkok Metropolis to be the study area. The scope is as follow.

1.3.1 Area Scope

The eight agricultural sites in Thawi Watthana District, Bangkok Metropolis were chosen. Each site has a size of 2 rai or larger, with various kinds of crops i.e. rice, orchid, vegetables and fruits. They should be easily reached by land transportation either by roads or canal boats or by surface access the reason why Thawi Watthana District is selected because its band on data obtained from various sources such as Articles for land Understanding, “Bangkok Highlights” and “Tourism Manuel, Local Museum, Thawi Watthana District, Bangkok Metropolis” and data from interviewing agricultural technical officers in the office of Thawi Watthana District. The details are as follows.

1) Thawi Watthana District is located on Thonburi side, where the traditional life style can be seen. Thawi Watthana District is famous for agriculture for a long time. There are various kinds of agriculture such as rice growing, planting of flower and decorating plant, such as orchid, rose and vegetables and cooking herbs e.g. lettuce, brassica chimensis, Chinese cabbage and fruit orchards and farms e.g. dragon fruit.

2) The Office of Thawi Watthana District had set up policy in order to support and promote additional community-based tourism to the with original main tourism sites. National Plan of Economic and Social Development else supports development of community tourism.

3) Thawi Watthana District is located on Project Route 11: Bangkok-Nakhon Pathom, Cruising the Historical Canal Tour fruit orchard and orchid farms along Khlong Maha Sawat. (Tourism Authority of Thailand, Thailand Agro-Tourism 21 Routes: 2003)

1.3.2 Technical Scope

Part 1 Primary personal data

Primary personal data of target agriculturists of 8 selected agriculturists from 8 agricultural sites of not less than 2 rai of various kinds of plantation such as paddy field, orchid garden, fruit and vegetable plantation primary personal data composed of 3 relevant factors.

- 1) Name
- 2). Sex
- 3). Duration of farming

Part 2 Data of possibility in developing agro-tourism divided in to 3 components, 8 criterions.

First Component: Value of destination, consisting of 2 assessed criterions.

- 1) Physical value
- 2). Biological value

Second Component: Basic facilities and transportation, comprising of 2 assessed criterions.

- 1) Basic Facilities
- 2) Transportation

Third Component: Management, consisting of 4 assessed criterions.

- 1) Tourism activity management
- 2) Management of tourism service
- 3) Management on knowledge
- 4) Environmental and safety management

1.4 Conceptual Framework

The research focused on agricultural sites in Thawi Watthana District through the process of surveying agricultural sites which are selected from agricultural area of not less than 2 rai of various plantation such as paddy field, orchid garden, fruit and vegetable garden where there are communication means whether by land or by canal, owned by agriculturists themselves or have the right over the area equivalent to the owner. The area must have been used as an agricultural site for more than 5 years.

The research is based on the study of relevant documents, observation and interviewing agriculturists by using the assessment form, focus group meeting of

community leader and agriculturists. All procedures are to find out the possibility of agro-tourism development and their opinions for set up the conceptual framework. The methodology of studying is as follows:

- 1.4.1 To find out the first-handed information on tourism resources by studying from relevant documents, text books, researches, etc.
- 1.4.2 To inquire and survey the tourism sites for selection the agricultural site.
- 1.4.3 To determine indicators for assessment based on data obtained.
- 1.4.4 To observe and interview agriculturist to evaluate potential of 8 agricultural sites by giving marks to each indicator in the assessment form.
- 1.4.5 To summarize the result from the assessment.
- 1.4.6 To organize focus group meeting composed of agriculturists, community leader to brainstorm how to develop agro-tourism.
- 1.4.7 To scrutinize and summarize all data and information obtained, and propose a guideline of agro-tourism development which is appropriate for agricultural area in Thawi Watthana District.

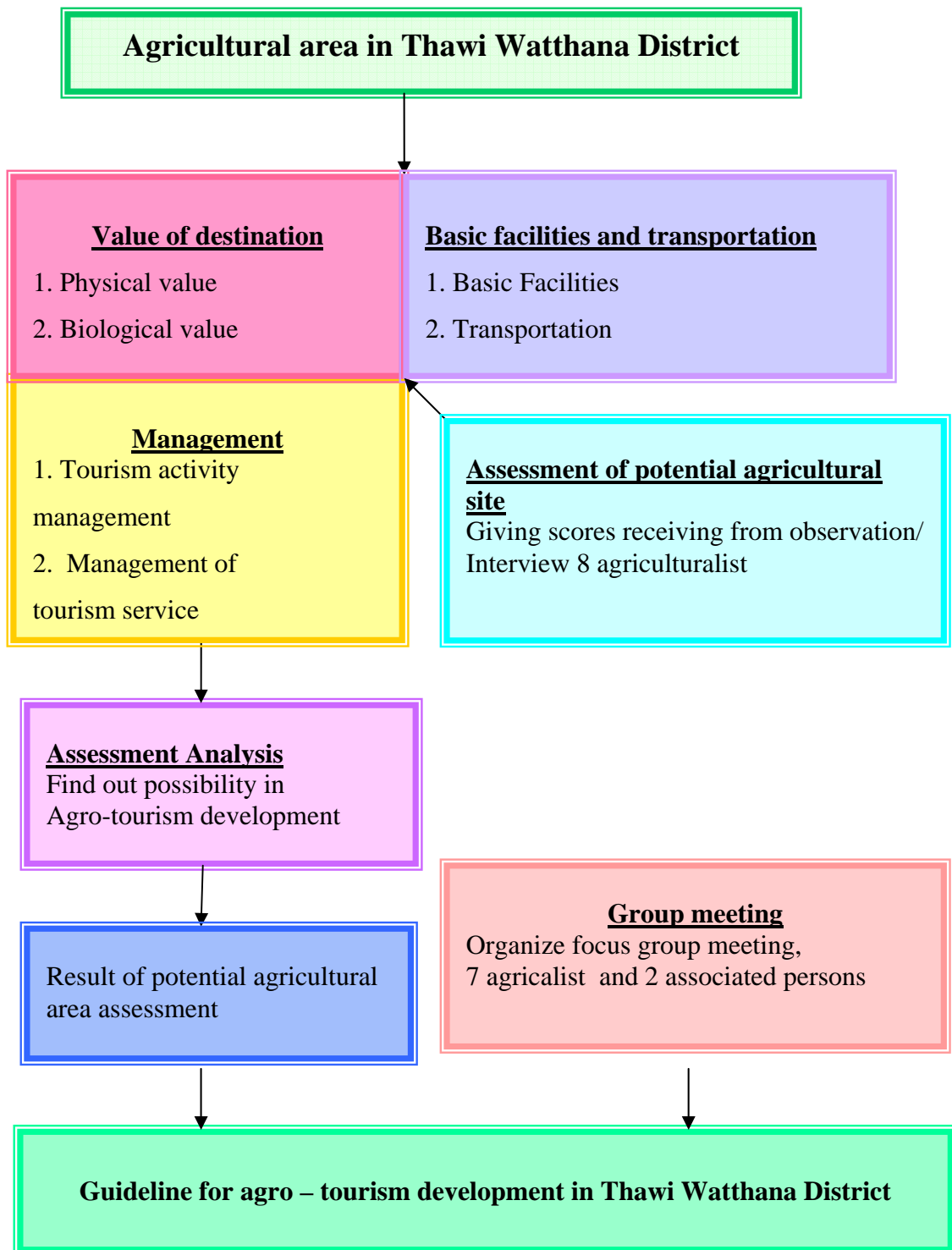


Figure 1.1 Conceptual Framework Flow Chart

1.5 Outputs

1.5.1 Agricultural site potential, its level and framework in development and promotion for tourism.

1.5.2 Guideline for development of agro-tourism.

1.5.3 Information to be used as the source of tourism development for relevant organizations.

1.6 Definition

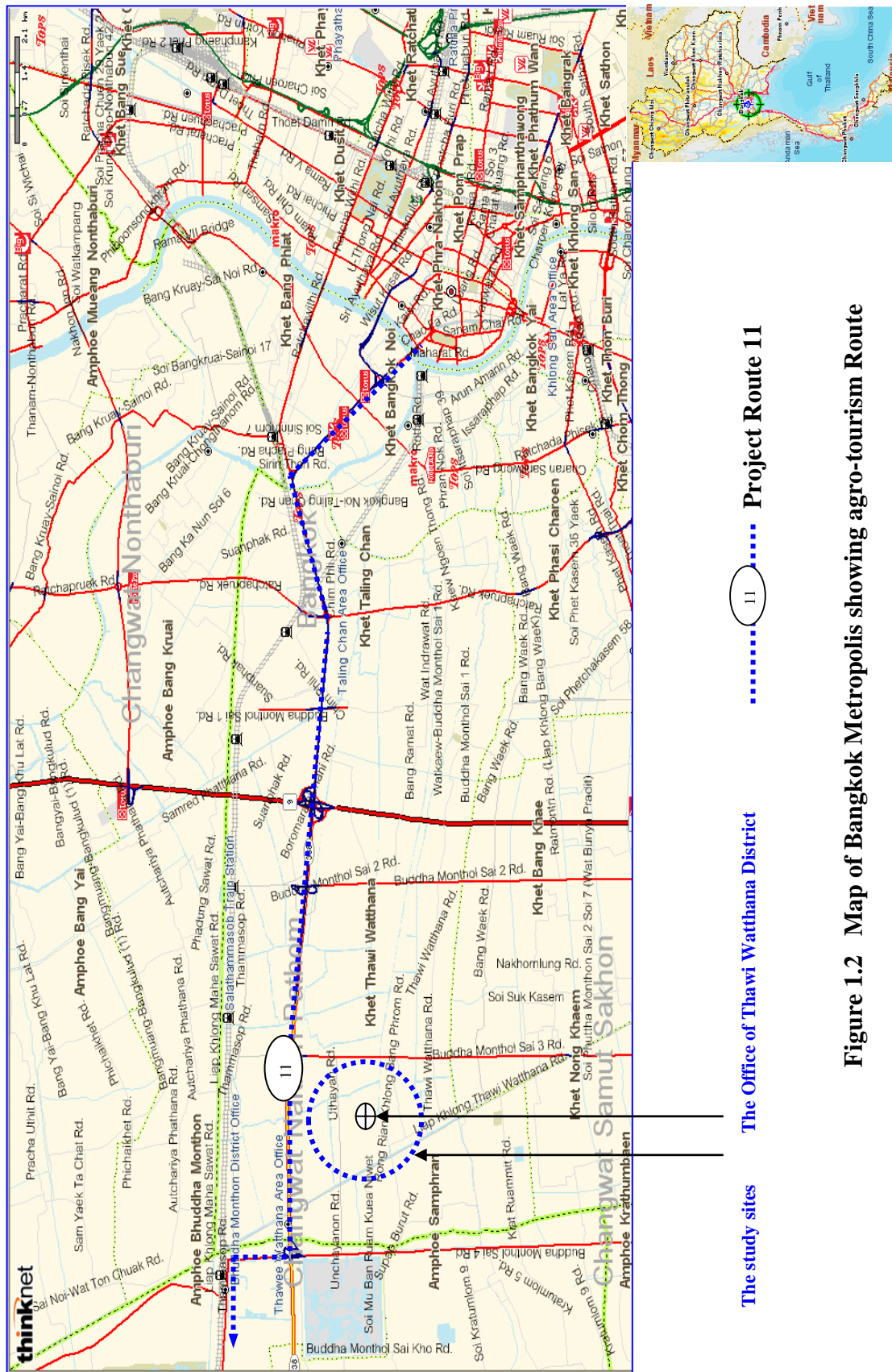
Phrases in this research are defined as follows:

The assessment of potential means the assessment of agro-tourism potential in the area of Thawi Watthana District. The assessment is to scrutinize the result of the assessment and range the potential. In the assessment, the assessment form comprising of factors, criteria, indicators, marks and rating have been used as a tool.

Agro-tourism site means tourism sites where there are main resources of agriculture e.g. orchard, flowering and ornamental plant plantation, paddy field. The site must have carrying capacity, services and agriculture activities such as planting, harvesting to gain tourist satisfaction and to add extra income to agriculturists.

Thawi Watthana District means the area which is governed by the office at Thawi Watthana District

Promotion and development of tourism means any process that enhances tourism site and tourism services being continually developed on the grounds of community capacity in participating in tourism management by using national resources as in thin usual normal life.



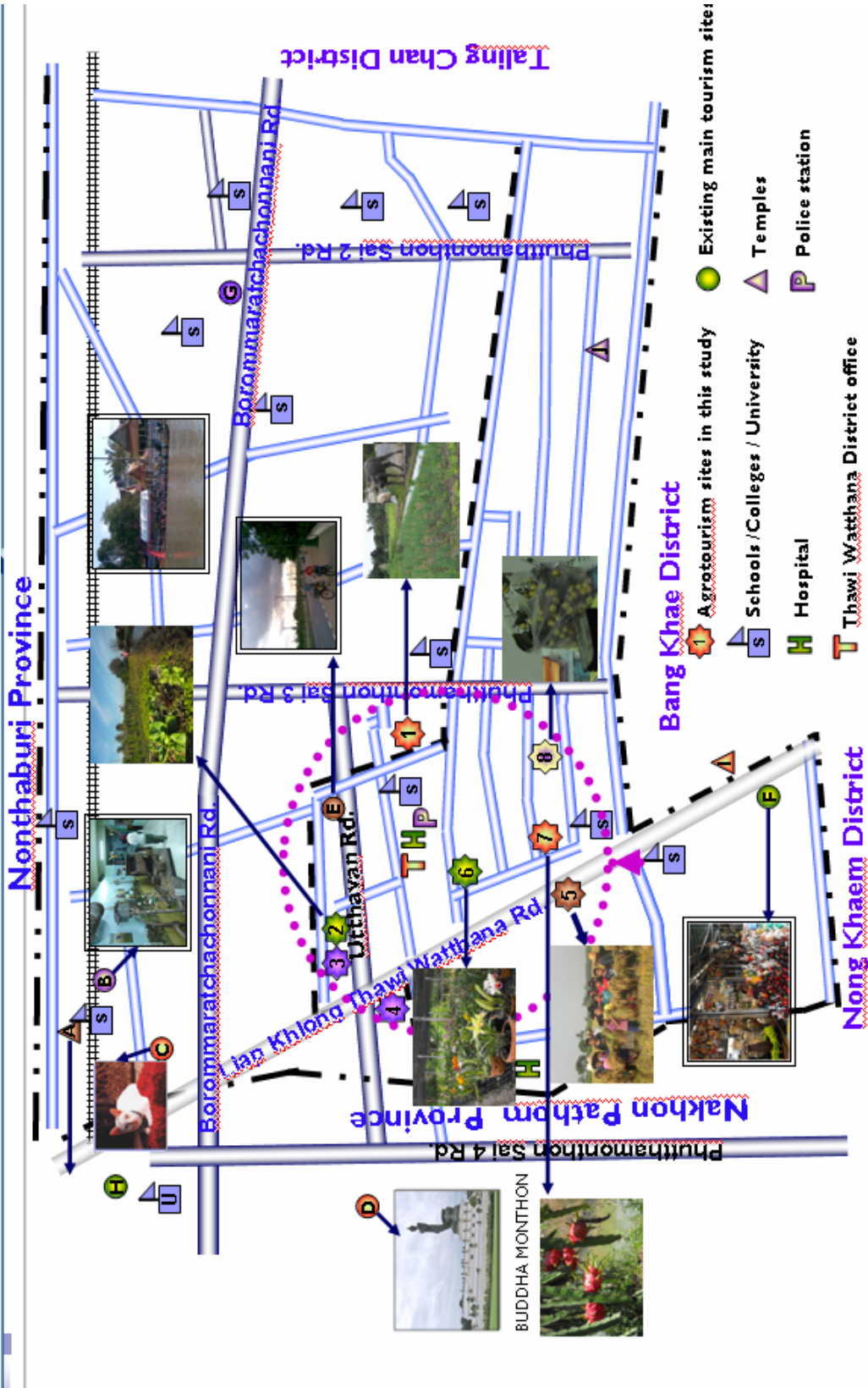


Figure 1.3 Map of Agro-Tourism sites in Thawi Watthana District

CHAPTER II

LITERATURE REVIEW

In this research, the data from literature review has been used in planning and analysis by collecting only relevant and interesting topics as follows:

- 2.1 Background and Importance of Tourism
- 2.2 Tourism situation
- 2.3 Thailand's policy on Tourism
- 2.4 Tourism Elements
- 2.5 Type of Tourism
- 2.6 Principle of Tourism Management
- 2.7 Tourism Development
- 2.8 Agro-Tourism
- 2.9 Concept of Analysis for potentiality assessment
- 2.10 General information of Thawi Watthana District
- 2.11 Tourism sites in Thawi Watthana District
- 2.12 Researches Review

2.1 Background and Importance of Tourism

In former Thai society, tourism was well-known only in the high society, it expanded to the middle class society when transportation had been developed by King RamaV. The expansion of tourism really occurred in 1960 when field Marshal Sarit Thanarat established the Tourism Promotion Organization which has been changed to be the Tourism Authority of Thailand (TAT) in 1979 (Wanna Wongwanich, 1996: 13-14). Besides, the development in air transportation and combination of land transportation through various parts of Thailand were the important factors which stimulate tourism to be activities for all. It even expands widely when there are a lot

hotels and tourism sites. Thailand has become well known among tourists for having a lot of beautiful sites and beautiful tradition and culture. Therefore, Thailand tourism has been expanded gradually until the revenue from tourism has come up to number one since 1936 (Somput Turajane 1997 : 92).

Thailand is not only famous for tourism services, but also for attractive world class tourism sites. From data of Tourism Authority of Thailand, The country has been awarded various tourism prizes for example, in 2004, Thailand was The World's Best Tourist Country 2004 from Scandinavian Travel Trade (Office of the National Economic and Social Board, 2007: 28). Unique culture and tradition, including worth of price, Thainess, meet the need of all types of tourists from travel and leisure Magazine by considering impression in various aspects i.e.: arts and culture, restaurants, hospitality, shopping sites and worth the price. Moreover, Chiang Mai has been ranked to the third tourist city of Asia, (Tourism Authority of Thailand, Thailand Overview at <http://thai.tourismthailand.org/news/release-content-933.html>, Feb 13, 2009).

Ministry of Tourism and Sports (2004:2-6) mentioned that tourism plays an important role to economic, politic and society as follows :

1. Tourism industry brings the highest revenue in foreign currencies when compared to revenue from the exports of other products. Revenue in foreign currencies is needed for national monetary.
2. Revenue from tourism industry is widely distributed to people, because it creates jobs, and is the second source of income.
3. Tourism activates other production and using of natural resources to the utmost benefit. The survey has found that Multiplier Effect of Thailand tourism is at 2.06.
4. Tourism industry is unlimited in sale or production.
5. Tourism industry is the key tool in promoting, improving and conserving national arts, culture and tradition.
6. Tourism industry has the significant role in bringing prosperity to the region.
7. Tourism industry is the measurement in promoting security and stability to the site which have been developed to be tourism sites. It helps in developing of infrastructures and well understanding between hosts and visitors.

8. Tourism industry has a role in education and technology development. In summary, tourism plays an important role to economic, politic and society, as it brings revenue from foreign currencies and it is widely distributed to people. It creates job, and the second source of income. It activates production and using natural resources to utmost benefit without limit in production. It also promotes, improves and conserves arts, culture and tradition. It brings prosperity to the region and helps in the development of infrastructures, education and technology. It also reduces migration to urban.

2.2 Tourism Situation

Tourism is a very significant role in Thailand's economic development. In 2005, The total revenue from foreign tourists is 367,380 million baht while income from native tourists is 334,717 million baht (Office of the National Board of Economic and Social Development). It is found that revenue from nature tourists has been less affected by circumstances or external factors than that from foreign tourists. At present, tourism has become chances to the rural people. There have been tourism in all countries which affect to more employment and more earnings. Besides, tourism causes learning in community which includes learning the wisdom of the community and participation in tourism management. (Sanpari Yokyong, 2008)

At present, tourists' behaviors vary according to the age, economic status and changing culture. Tourism has become more usual from simple life style; tourist would like to contact local people to gain direct experience. Most of them are tourism for learning, ie: eco-tourism, cultural tourism, conservative tourism and agro-tourism. For agro-tourism will focus on conservation of local life style and culture as well as development and promotion of agro-tourism, by using agricultural resources as source of tourism which make local people proud of their own career and help keeping Agriculture. Thailand has an advantage for its capability and competence by the fact that there are many essential factors which meets demand of tourists apart from how it worth the price, its genuineness and beautiful nature. Moreover, the Government takes policy in developing and supporting tourism through the announced strategy of

Thailand tourism development (BE.2004-2006) to develop tourism products and services to meet quality standard.

2.3 Thailand's Policy for Tourism

Thailand's policies related to tourism are as follows:

2.3.1 The Government's strategy in tourism development

Tourism strategy between 2004-2008 stipulated vision as "Thailand is tourism capital of Asia", while vision in the year 2005-2006 is "Aiming to quality by building strong infrastructure and firm development community" within two years (Yuwadi Nirandtrakoon 2004 : 5-7 online). An action plan under the strategy of tourism development in 2007-2008, elaborated by Office of the National Board of Economic and Social Development (copied, 2006), laid down vision as "Thailand is natural and cultural tourism capital of South East Asia" having related development strategy to develop and upgrade quality of tourism products to meet the world market's requirement by two elements; firstly, to develop the quality of natural and cultural tourism sites to be world class destination; secondly, to promote tourism activities which represents Thainess, using difference of culture, local life style to be new attractions for Thai tourism business and focusing on development of agro-tourism activities as appropriate according to the area for value added purpose Office of The National Board of Economic and Social Development 2007 page 74)

2.3.2 Regulations and charters concerning with tourism

Tourism activities are involved with various business and stakeholders : tourists, manufacturers and habitants, the owner of tourism sites; therefore, it is necessary that laws, regulations and charters are flexible, have to be announced to control the behavior and performance to be in the same direction. These can be divided into two categories i.e.: law concerning with tourism directly and law concerning with tourism indirectly.

Law concerning with tourism directly comprise Restructure of Government Departments Act BE 2002, Thailand Tourism Act BE 1979, Tourism Business and Guide Act BE 1992, Hotel Act BE 1935 and Serviced Sites Act BE 1966.

Law concerning with tourism indirectly are Promotion and Control of National Environmental Quality Act BE 1992, Site Control Act BE 1979. (Issue 2) BE 1992, Labor Protection Act BE 1998, Public Health Act BE 1992, Ancient Sites, Antiques and National Museum Act BE 1961 and Natural Park Act BE 1961.

Restructure of Government Departments Act BE 2002 is very important to tourism as it announced the existence of Ministry of Tourism and Sports to support and develop tourism industry. The Act also established a new Department namely “Office of Tourism Development” by dividing some task from Tourism Authority of Thailand. Its responsibility is to develop standard of tourism industry by surveying, planning, performing, supporting, conserving, improving, fixing and developing tourism sites and resources as well as to develop facilities to tourists. It also builds capacity to reach world class tourism standard, while Tourism Authority of Thailand’s main task is responsible for marketing i.e.: to make Thailand well know as beautiful tourism sites where tourists should visit.

2.4 Tourism Elements

Ministry of Tourism and Sports (2004: 6-11) has mentioned that tourism comprises of ten elements as follows:

1. Communication and Transportation
2. Accommodation
3. Cafeteria and restaurant
4. Tourism business and tour-guide
5. Tourism attractions (resources or tourism heritage) which are divided to natural attraction, historical, antique, ancient sites and religion attraction, cultural, activities and tradition attraction
6. Souvenir and local products
7. Safety

8. Immigration Facility
9. Other tourism activities such as meetings, entertainment and leisure
10. Distribution and advertisement

In summary, there are three principle elements 1) tourism resources or sites 2) tourism market 3) tourism services (Thailand Institute of Scientific and Technological Research (TISTR) 1997 : 15-18).

2.5 Type of Tourism

Tourism can be divided into four types according to its resources (Ranee Isichaikul and Rotchaporn Chanwawang, 2003 : 38) as follows:

1. Natural tourism resources mean natural tourism sites which are beautiful by nature having geographic and geological attractions, and diversity of forest. Its elements are landscape, climate, water source and plants and forest.
2. Historical antique, ancient and religious sites tourism resources mean man-made tourism sites and significant for sources of historical evidence.
3. Cultural and Traditional tourism resources mean that of cultural value having identical tradition which derived from ancestors to nowadays generation.
4. Man-made tourism resources mean tourism sites which have been constructed by mankind to meet tourists demand.

The meaning of tourism resources is wide and covered. It can be said that every resource in the world can be tourism one if it can bring satisfaction to tourists or visitors. Those who provide services can earn income from tourism.

Tourism can be divided, according to activities or tourists interest into five types as follows:

1. Eco-tourism
2. Agro-tourism
3. Culture tourism
4. Ethnic and local cultural tourism
5. Health and sports tourism

It can be summarized that tourism can be divided according to its dominant resources or according to tourist activities or interests. As for agro-tourism, it is divided by tourist activities or interests which can convey the meaning more clearly.

2.6 Principle of Tourism Management

The elements are as follows:

1. Community participates in development of their home land tourism sites by considering location, readiness and community needs. Community also participates in considering the committee format and its responsibility as well as seeking for Government support, etc.
2. Various local authorities such as Tambon Council, Tambon Authority, leader of Tambon, village or community including other folk organization have involvement in supporting plans, projects and activities of tourism.
3. Tourism business sector, local organizations, environmental organizations and Government sector impartially work together.
4. Folks should take part in decision making of various projects which may affect most people way of life.

Guideline for site tourism management is comprised of ten elements (Naridsara Sanatonsaowapark, 2002) as follows:

1. Maintaining the original as much as possible especially local identity. Cleanness, peace, convenience and good environment should be maintained.
2. Design of tourism facility construction, for example, lodging, path, food and beverage and restroom, etc. should go along with the natural surroundings and local culture. It should not contrast landscape or create uncomfortable view, like cutting a path through natural tourism sites should avoid a cutting a big tree and should always mind side effect that may occur. Selection of design and color of chairs at various leisure points should be in harmony with nature, etc.
3. Infrastructure management should examine tourist carrying capacity by considering environmental condition, physical carrying capacity and environmental

carrying capacity, for example, the management of tap water, electricity and excrement should be well and enough for the operation.

4. Analysis of fragile ecology covering natural resources, cultural heritage and various ancient sites is necessary.

5. Study and survey power source to bring and use natural resources, like solar and wind power to the utmost benefit.

6. In disposal, there should be an effective waste water management. The principle of reuse, recycle may be used. As for disposal from toilets, the system of biogas may be used.

7. In managing and servicing, international standards like ISO 9000, ISO 14000 and ISO 18000 should be considered.

8. Knowledge concerning tourism resources management should be provided to all folks at every level of local area. They should learn, gain experience and study tour and be trained of how to provide good services and hospitality. These know-how shall be updated all the time.

9. The study of impact and assessment of tourism sites potential should be well organized. The use of tourism resources must consider the price of environment; data of environmental condition should be collected to find out balance between carrying capacity and tourist demand and should meet the Government's policy as well. Besides, the aim of management and tourism resources management should be agreed among executives.

10. Tourism resources management and all regulations should be planed, revised and develop among manufacturers, Government sector, NGOs and natives by sharing opinion fairly.

2.7 Tourism site development

There should be three elementary factors (Chayaporn Chuenrungrroj, 1987) which are

1. Pushed or motivated

2. Readiness in development where tourism resources potential and strategy is considered.

3. Native demand. Development which does not meet the native majority need may cause some problems or conflicts.

It can be summed up that tourism site development depends on various factors i.e. : motivation, readiness and native demand in cooperation with community, organization, private sector and community.

2.8 Agro-tourism

2.8.1 Definition

Agro-tourism (<http://agrotourism.doac.go.th>) refers to traveling to agro-community area, agro-garden, plant garden, herb garden, cattle and animal farm, fishery ponds, Government bodies and educational institute where modern research and development relating to agricultural technology production is being running to be happy with beauty, achievement and joy of various kinds of agricultural activities, to learn and gain new experience with responsibility and awareness to conserve environmental condition of the site.

Agro-tourism is obviously different from ecotourism or soft-tourism; it is combination of rural life style, culture and tradition (Saratsawadi Asasappakij, 1997: 42) and management of natural beauty by farmers or community. Tourists can enjoy nature and agricultural culture on real farm and participate in agricultural activities. They can go to plantation garden led by farmers or guides, learn farmer's life style and join economic activities. Sometimes tourists join farming themselves (Surachet Chettamas, 1998: 17). Thus, they gain knowledge, skill and experience respecting eco-system dignity which means agricultural basement conservation, giving economic benefit and opportunity together with agricultural area development.

2.8.2 Type of agro-tourism

Agricultural Promotion Department, Ministry of Agriculture and Cooperatives (2001) has divided agro-tourism into three types as follows:

1. Community agro-tourism or Agro tourism Village like agro tourism village at Tambon Tapong, Rayong Province. This type of agro-tourism is run by members of agricultural group in the village, both who stay over night in the village and those who come in one day trip. Each agro tourism village must have a distinguished activity, for example, paddy field village, fruit garden village, flowering garden village, bee nursery village, etc. Agro-tourism village will be divided into two parts to ease and appropriate for tourism management i.e.: visiting center and agricultural area of which produces will be collected and brought to visiting center for sale and income will be shared according to groups agreement.

2. Individual or activity agro-tourism farm means the individual agricultural farm which interesting and famous in achievement of plantation or farming such as Rambutan, Durian, flower garden, vegetable, mixed plantation, cow, and milk, etc. Farmers have to be keen in tourist reception and agricultural product display. Sometimes, they arrange accommodation as homestay (where tourists stay in the same house with the host).

3. Festival on agro-tourism means holding of festival or agricultural expo, such as World Durian Day, Sweet Tamarind Day, Vegetarian Day, Trang Grilled Pork Day or interval of interesting agricultural phenomenon such as sunflower field, Krajeaw flower field. These are to promote agricultural product market and to disseminate knowledge concerning Agriculture.

Moreover, agro-tourism can be divided according to tourism sites as follows:

1. Agro-tourism in main tourism site. It is one of how to develop agro-tourism to be an additional tourism site in main tourism. It is suitable for short vacation aim to share tourists from main tourism site. It adds diversity to tourism sites and creates more satisfaction to tourists.

It is not necessary for this kind of tourism site to be large or have high potential but it should be in appropriate location i.e.: agricultural market.

2. Agricultural area which is meant to be a famous tourism site and a destination since agricultural area is large and high attraction such as milk production source, orange produce source, etc.

This type of agro-tourism has specific market and tourists. It can be developed to be complete agro-tourism site having production, product selling that tourists can learn the way of life.

3. Linking / Along the way . It is scattered and agro-tourism potential but cannot be developed to be destination. Therefore, it is considered to be network tourism sites. It may be an agricultural market or interesting agricultural production source.

This tourism can be developed for agricultural products reputation, selling products or to be an accommodation as appropriate by attracting the passing tourists to drop during there travel.

4. Specific site is an area of specific character or high attractive agricultural sites such as agricultural sites or rare agricultural production source like wine production. These specific sites can be developed to be a tourism destination or important supplementary tourism sites in tourism network.

2.8.3 Element of agro-tourism

Agro-tourism has three principle elements i.e.: attraction, service and tourist. It means travelling of which main activity is related to Agriculture which attracts tourists. It provides services to meet tourist requirement of gaining knowledge and joyfulness. In this aspect, tourist is capable and willing to pay to access the site and service (Thailand Institute of Scientific and Technological Research, 2000: 18-20)

2.8.4 Format of agro-tourism activities

Agricultural Promotion Department, Ministry of Agriculture and Cooperatives (2001) divided agro-tourism into seven types according to Agriculture type, as follows:

1. Rice cultivation. Various cultivation such as normal paddy farming, additional farming, sown farming, step farming, rice museum contributing knowledge about various kinds of rice, ceremonies or tradition concerning rice, etc.

2. Cutting flowers, Flower gardening for sale such as rose garden, orchid farm, sunflower field and all kinds of pottery flowers.

3. Horticulture including forest Agriculture, new Agriculture, mixed garden, rubber garden, bamboo garden and oil palm garden.

4. Vegetable farming including plantation of vegetable, bean, corn, sorghum, pepper, etc.

5. Herb farming. Planting herbs to be complimentary food, beverage, cosmetic and used in Thai traditional medicine.

6. Animal farming. To keep and breed commodity animal like, silkworm, bee, fishery : beautiful fish, Tilapia fish, brackish water pearl farming, mussel farming, cockle farming, oyster farming, crocodile farm, rare wildlife, peacock farm, pheasant farm, deer farm and snake farm of Thai Red Cross Society.

7. Festival for promoting the sale of agricultural produce of blossom time for example, flora festival, fruits festival, fish festival, etc.

Besides, it can be divided into six types according to serviced activity (Agricultural Promotion Department mentioned in Patnari Thienkittana, 2004: 19) as follows:

1. Product display or demonstration i.e.: display of variety of vegetables and flowers, demonstration of cultivation i.e.: growing, harvesting, processing and packaging, display of agricultural tradition and culture like transplanting, harvesting, grinding, some handicrafts demonstration, display of tools and utensils, way of agricultural life in ancient days, etc.

2. Short activity like visiting agricultural garden, surrounded by natural atmosphere and picking fruits from the tree by yourself, joining local activities with folks for example, buffalo riding, plugging on a carriage, rubber slitting, fishing by net, boat rowing, etc.

3. Homestay providing accommodations in the village together with clean and traditional clean food for tourists to learn and join local life warmly, safely and conveniently.

4. Training of Agriculture. i.e.: practice in modern Agriculture such as growing, looking after, processing and storage of agricultural produce, practice and study about local wisdom such as knowledge about useful insects, how to pick eatable vegetables in the forest, how to make shredded rice grain, rice noodles, sugar from coconut and toddy palm, harvesting, how to bake glutinous rice in a bamboo stick, how to fume herbs and Thai massage.

5. Selling of agricultural products such as the sale of processed food held by farmers' wives, the sale of local handicrafts, household, souvenirs, fresh fruits and vegetables, flowers, plants and seeds, etc.

6. Activities concerning agricultural business i.e.: letting touring join and see activities of farmers that may lead to business with farmers like processed production for export, etc.

2.8.5 Steps in agro-tourism management

There are 6 steps in agro-tourism (Agricultural Promotion Department, 2001) as follows:

1. Establish management strategy

1.1 Evaluate resources that may be used in tourism activities i.e.:

1.1.1 natural resources condition, Agriculture
and season

1.1.2 facilities

1.1.3 culture, tradition

1.1.4 stakeholders

1.2 Establish required tourism activities i.e.:

1.2.1 what and level to be developed

1.2.2 various activities with least effect (if any)

1.2.3 what to convey to tourist

1.2.4 attractions and routes

1.3 Plan activities and types of tourism in the area

1.3.1 establish who to be in charge, area, format
and how

1.3.2 plan trainings for community

1.3.3 prepare media

1.3.4 establish tourist information center

1.3.5 develop handicrafts and souvenirs

1.3.6 seek for fund

2. Establish structure of service rate and fund

2.1 guide

2.2 accommodation and food

2.3 reception, transportation

2.4 presentation

3 Join tour operator that has less impact (if any) and donate some profits to community conservative activities

4 Join community by creating stakeholders network, let community join in making decision may be in the form of organization or community authority to examine tourism activities, services, foods, guides, reception and information, exhibition, homestay, souvenir selling, carrying capacity.

5 Elaborate guideline and how to examine impact of community tourism.

6 Consider appropriate community capacity.

2.8.6 Guideline for agro-tourism management

Agro-tourism management concerning with three stakeholders i.e.: garden owner, tour operator and guides and tourists those comprises of three guidelines (Rampaipan Kaewsuriya, 1999: 27-29) as follows:

1. Guideline for garden owner management

1.1 Preparation of sight-seeing of garden that can be seen widely

1.2 Preparation of demonstration corner together with officers

1.3 Providing a guide who can explain equivalent to or better than the garden owner (providing additional knowledge, metaphor, etc.)

1.4 Preparation of relax corner with food and beverage and selling of products and souvenirs

1.5 Preparation of rubbish bin, wet and dry

1.6 Providing of clean toilets (perhaps there may be a box receiving money from tourists, for maids)

2. Guideline for tour operator and guide management

2.1 Having knowledge about the place to be able to make decision and preparation for tourists

2.2 Keen of “do and don’t instructions” in visiting agricultural garden and make sure that tourists understand well before starting journey

2.3 Try to exchange opinions among tourists, at least for 15-20 minutes on the way back or that may be assumed as an evaluation to be improved for the next visit

3. Guideline for preparation of agro-tourists

3.1 Should be those who are interested in each field of agricultural garden to be visited

3.2 Prepare themselves and equipments as instructed by organizer

3.3 Bring with them a camera and accessories

3.4 Follow “do and don’t instructions” of each visiting place for nature and tourists sake.

3.5 Aware of conserving environmental condition in cleanness and beauty aspect.

2.8.7 Element of agro-tourism management

Elements of agro-tourism management (Pasnari Thienkittana, 1999: 25) can be divided into three elements i.e.:

1. Agro-tourism resources comprise of tourism sites and resources concerning with agro-tourism activities, mostly mean physical condition of agricultural resources which may be natural or man-made, culture concerning with agricultural activities in communities.

2. Agro-tourism services i.e.: tourism services concerning with agricultural activities in the area or activities affecting agro-tourism in the area

3. Agro-tourism marketing i.e.: demand of tourism concerning with tourists, operator and people in the area which mean activities, format or agro-tourism process in the area.

2.8.8 Preparation of visiting and joining agricultural activities areas

Since Agro-tourism is a type of tourism where tourists can see, taste and buy products including participation in agricultural activities; tourists expect that

actual agricultural areas are open for them to visit. Therefore, activities that should be provided in tourism sites (Patnari Thienkittana, 2004: 29) shall be

1. Short term activity with or without (in this case, tourists shall bring equipment themselves) tourism equipment.

- 1.1. Visiting agricultural garden. Tourists may pick fruits from the tree and try or they can buy produce directly under instruction of officers

- 1.2. Participation in short term activity with villagers, for example, processing of produce, etc.

2. Homestay. They can study and join local life of agro-tourism provided with accommodation, clean, safe food and warm and convenient services.

2.8.9 Sight-seeing route management

Site-tourism operator is the one to be in charge of selecting the route of sight-seeing by the fact they are proficient in the area. More information may be obtained from related Government Bodies such as Department of Agriculture and Agriculture Promotion Department. Sight-seeing routes. (Patnari Thienkittana, 2004:25) are as follows:

1. Footpath within tourism sites to bring tourists from one place to another, beauty or where there is an agricultural activity. The route should cover all around interesting sites such as an orange garden where the path can be applied from the ditch.

2. The path should be at least 0.60 m. in width, anyway, it should be depend on the way we use it and amount of users. The path should be under shade as much as possible and should be cleaned regularly to prevent damage that may occur to tourist like slippery, etc.

3. Materials to be used as a path in tourism sites may be depend on area, for example,

- Tightly pressed soil path. This is easily done in land surface area but it may have some problems in rainy season. This type of path is appropriate for garden sight seeing.

- Cement path. The path needs cement for stronger path, it is suitable for agricultural activities exhibitions or path for vehicles.

- Stepping stones and bricks on even surface soil. This should be fit each step of walking.

- Timber path may be necessary in some areas of flood, here and there, or for low land where water maybe contained all the time or area where may be affected from natural surroundings if there is any construction.

- Concrete path which is suitable for land that can bear heavy weight which has to be quite weight, land that needs strength and permanence.

4. Slope or hazardous path, step or bridge needs a rail to strengthen firmness in walking and can be border line as well. The most convenient material to be built as a rail is wood, bamboo, rattan. The height of a rail is at one's waist or around 0.8 meter.

Sight-seeing route management depends on character of the area, anyway, in building, safety and convenience should be considered the most.

2.8.10 Provision of resting place for tourists

A place where tourists may have a rest should be at tourist center or within agricultural area provided for tourists (Patnari Thienkittana, 2004: 27) like these follows:

1. A leisure / sitting place in agricultural area like space in a garden ditch or canals. There may be boats rowing around the garden to have a look on people life style on both sides of the canal. The guide should row the boat to visit various places. The boat should be equipped with safety tools.

2. An open shelter for tourists to relax, listen to presentation or have a shelter from sunlight or rain. The shelter should be big enough for five to seven tourists or of 3x3 meters size.

3. Building a leisure place should use local materials, for example, bench, view-point shelter should be built from local material of which the external form is natural like. These materials are bamboo and wood, etc. Moreover, it should be coated with wood protection liquid or liquid to get rid of termites or other insects which eat wood. The seat should be comfortable for having a conversation and in an appropriate level.

2.8.11 Technique of site seeing guiding

The guide should be nice, have smiling face, good communication with any person, well-dressed, reliable, trusted and has been trained. Therefore, tourism site guide should have knowledge and competence (Patnari Thienkittana, 2004: 28) like these:

1. Keen on agro-tourism sites so that they can provide information to tourists for making decision and preparation, for example, information about orchard, vegetable garden, quality flower garden, instruction on plantation, etc.
2. Hint how to notice and learn of natural wild life in each area including display / demonstration such as how to grow mangoes in various regions of different kind of plantation, how to select plants' species, etc.
3. Keen of "do and don't instructions" in visiting agricultural tourism sites and convey such knowledge to tourists so that they have right perception that lead to behavior which effects resources and environment the least.
4. When finish sight-seeing, guide should hear tourist's opinion for about 5-10 minutes to evaluate the management of tourism site and for improvement and revision. Besides, record about journey: duration and amount of tourists should be taken as statistics and reminders in next tourism site management.

At present, sight-seeing service plays a significant role in tourism management since guide can make benefit to tourists and handle the tourism not to give any harm to environment As a result, a guide should be well prepared.

2.8.12 Agricultural tourism sites made known to the public

Agricultural tourism sites in Thailand which are known to the public and have been grouped into tourism routes, i.e.: The Tourism Authority of Thailand together with The Department of Technical, Department of Agricultural Promotion have published Travel agro-tourism sites all over Thailand in 2003, having 21 routes as follows:

1. Chiang Rai route: Full of nearby various beautiful plants at Agricultural Group Research Center, Chiang Rai; drinking tea in the middle of mist at Doi Wawee Highland Agricultural Experiment Station, visiting tea plantation; enjoy Buatong field

at Doi Huay Mae Kam Highland Cultivation Promotion Center; be delighted with colorful Tulip field at Doi Pa Mon Highland Cultivation Promotion Center.

2. Chiang Mai-Lampang route: travel Khun Wang-Khun Khao of plants and fruit at Ban Khun Wang Cultivation Research Center in Chiang Mai : taste good tea; enjoy beautiful scenery at Mae Chon Luang Highland Agricultural Experimental Center; visit kingdom of bees, center of sweetness at First Stage Conservation and Breeding Center; visit botanical garden where there lay a small world of plants at Queen Sirikit Botanical Garden; study about Cultivation from think tank and agricultural personnel at agricultural demonstration garden, Mae Jo University; study pattern of development and conservation of upstream forests at the Study Center of Huai Hong Khrai Development, Chiang Mai; elephant riding around forest plantation at Elephant Conservation Center and Thung Kwian Forest Plantation.

3. Uttaradit-Phrae-Nan route: visit agricultural forest at Mueang Lab lae at Suan Sri Petch, Uttaradit; visit Plantation and Culture center, Mueng Phrae ; discover Pulu turtle life in mid-jungle at Pulu Turtle Conservation Village, Baan Natong, Phrae; visit source of nice fruit plants along Nan River at ornamental garden; visit golden oranges produce of Mueang Nan at orange orchard at Thung Chang; join community agricultural life on mountain at Kaset Manee Pruck Village, Nan.

4. Pitsanulok route: learn how to support and live with nature at Uncle Pong's Natural Agricultural Garden; visit sample of sustainable forest plantation management at Khao Krayang Forest Plantation; visit highland agricultural life at Ban Mhang Rong Kla Agricultural Tourism Service Center, Ban Huay Nam Sai Hilltribe Culture Center, Phu Hin Rong Kla National Park, Tung Salang Luang National Park.

5. Phetchabun-Loei route: visit center of winter plants in upper Northern East of Thailand at Phu Ruea Highland Cultivation Experiment Station, try excellent wine Phu Ruea at Phu Ruea Phu Ruea, Wanothayan Vine yard; study llegend of fruit plantation at Phetchabun at Rai Kamnon Chun's Plantation Jan; visit winter plants at Khao Kho at B.N. Plantation.

6. Udon Tthani-Nong Khai route: learn modern technology of how to breed and conserve plant species at Breeding And Management of Plant Species Center 1, contact world fragrant orchid at Udon Sunshine Orchard

7. Kon Kaen route: visit man and bee life at Phu Wiang Bee Village; visit big herb produce source in Thailand at Group of Farmers' wives, Ban Sap Sombun; drop at Thailand's Jurassic Park at Phu Wiang Dinosaur Museum

8. Surin route: visit the source where beautiful silks are woven; delicate silverware at Silk Village, Ban Khwao Sinarin - Ban Sam Kho; visit live herbs at Ban Prasat Medicinal Garden; feel life and bond between human and elephant at Elephant Village, Ban Ta Klang.

9. Saraburi-Lop buri-Nakhon Ratchasima route: visit sunflower field and the world's largest and biggest soil dam at Pa Sak Chonlasit Dam; Lop buri; visit Muak Lek flora, Murk Lek Fountain, Seven Maiden Waterfall Ched Sao Noi Fountain, Saraburi; enjoy sweet songs and grapes, shopping trees super-market in northern town atmosphere at Flora Garden, Mueang Phon; listen to historical background in an outdoor research; think tank in the middle of the hills at National Corn and Sorghum Research Center; meet pioneer Western Cow-boy in Thailand at Chok-chai Farm, Nakhon Ratchasima.

10. Suphan Buri-Ang Thong-Ayutthya route: travel pond of joy of various lives at Bueng Chawak; learn about Thai farmers' old friends at Home of Thai Buffalo, look at creative handicraft towards world market at Pho Sri handicraft housewives Group, Suphan Buri; buy patient and 100 year duration coconut fiber broomstick; have a look at produce from Quail and non-stop development at Anek's Quail Farm; participate in boiling local herbs in syrup with housewives who are fond of experience, Queen of processing, Ban Chaiyo Farmers' wives Group; buy products from useless weeds which turned to be famous handicrafts from Ban Mahanam Jawa Weeds Products Group; buy basket work and bamboo products from Basket work Group and Bang Chao Cha bamboo weaving Group and Museum, Ang Thong; participate in Thai Arts training course at Bang Sai Special Arts work Center, Ayudhya.

11. Bangkok-Nakhon Pathom route: enjoy boat trip, of Agricultural Tourism Services Center, along Khlong Maha Sawat; visit orchid, pomelo, lotus, mixed agricultural crops plantation and buy some products of Farmers' Wives Group, Maha Sawat, Nakhon Pathom.

12. Bangkok-Nonthaburi, route: Cruise Khwae Om Cank al, visit Bang RaNoi garden, visit Wat Chaloem Phra kiat and Chaloem Kanchanaphisek Park, visit Aunti Sawai's all kinds of fruits orchard, Khun Boonlert's durian orchard; Khun sawaeng natural pollen garden-multi-leveled of tree plantation; visit products processing demonstration at Agricultural Products Processing Center of Bang Rak Noi Farmers' housewives Group; watch how to cultivate seedlings and plants ornamental trees at Bang Rak Noi Agrotourism Center, Nonthaburi.

13. Kanchanaburi route; visit variety of winter plants in western hills at Dan Chedi Sam Ong Highland Cultivation Promotion Center; try chemiless pummelo of Khun Boonmee; visit how to breed fishes in Krachung (floating basket) on boat trip at Malai Raft, fish breeding in krachung demonstration center; try cream coconut at cream coconut island, Khao Laem Dam; buy mushrooms at Suan Ake Community Mushroom Farm; study about nature at Nature Studying Center, Kroeng Krawia Forest Plantation and Thong Pha Phum Forest Plantation.

14. Samut Songkram-Ratchaburi route which is along salt water and brackish water area; watch how to make genuine coconut palm sugar of Mae Klong at Tao Tan, Dao Dong Housewives' Group; buy products from salt Housewives' of Bang Kaeo Housewives' Group; appreciate wisdom of people live around wet mud area of Ban Khao Yi San natural colour dyed tied cloth group; touch colorful morning market life along railway, Mae Klong; visit sole special eco system mud beach in the world at Don Hoy Lo; try organic pomelo from Bang Prom at Saeng Tawan Orchard; learn wisdom of how to adapt themselves of people living around river basin and breed red tilapia (Planin) in floating basket; have a look at art and philosophy from a coconut shell at Kala Banleng Handicrafts; buy coconut jelly product to solve pollution problem of Wat Pradu Maiden Group; boat trip and have a look at pace of lives of people who live along the canal at Tar Ka Floating Market; touch life of people living around Khwae; visit old rivers; visit a garden-Khlong Khwae Om; stay at Thai traditional house; boat trip of Plai Phongphang Ecotourism Village and enjoy watching fireflies.

15. Phetchaburi route; take a bicycle riding around pineapple orchard of Agricultural Crops Experiment Station, Phetchaburi; learn new theoretical concept: sufficient economy at Queen Mother Garden; buy souvenirs and stay in homestay

ancient Thai traditional house at Thai Song Dam Cultural Center; visit Phetchaburi beach Maluekkhathaiyawon Palace, Pra Nakhon Khiri or Khao Wang.

16. Bangkok-Nakhon Nayok: have a walk and try genuine excellent some Marian plums or Mayongchid that can be presented to the King at Bunsom Garden; try durian which is selected from the tree at La-Ong Fa Orchard, Ancient Durian Conservation Center; enjoy songs from Out of habitat Dala at Wang Thip Garden; Bicycle riding to pick some Pomelo which are controlled pest by missing method: lazy plantation of IPM Pomelo Growing Group; stay with villagers and join gardeners' lives at Tha Dan Homestay; enjoy how to make fancy trees with tree magician at Siya Garden; buy trees from Thailand's biggest ornamental trees center at Amphur Ongkharak ornamental tree route.

17. Chantaburi-Trat route, seaside fruit town: visit all orchards in one day at Chanthaburi Plantation Crops Research Center; study sample of sustainable development of resource and seaside community at Study Center of Khung Kra-ben Bay Development; watch a demonstration of weaving mat and buy some at Chantaboon Mat Village, Ban Samet Ngam; visit National Museum of Naval Commerce, Trat route; boat trip to the sea, feeding fishes, try fruits in agricultural tourism site on Ko Chang, of Old Ban Dan Breeding fish in Krachung Group, New Ban Dan See La Mun 200 years Housewives' Group, Ban Had Sai Daeng Improving Durian Quality Group, Ban Saluk Phet Orchard; buy fresh food and stay overnight in seamen's homestay at Bang Bao fishing village.

18. Chumphon-Ranong route: have a Thai massage and buy herbs from herb garden at Wat Khao Kluai ; visit Nin Khiao Shogun orange orchard; learn how to plant durian and Tawai lansium domestieum at Monthip and Nai Yao orchard, Chumphon; visit Ko Chang and Ko Payam, watch a demonstration of produce processing such as shrimp paste, Kaya Wine (cashew nuts Shelling).

19. Pang-nga-Krabi-Phuket route: appreciate wisdom of how to make local Chok sugar at Ban Bo Saen; visit dragon fruit demonstration plot; buy herbs from herb park of Nai Man; learn how to manage mixing Agriculture, buy native banana and ornamental banana in Tap Put Agricultural Tourism site, Phang-nga; have a look at local fishery and stepping on shells in floating basket; try fresh sea food; walk around

and observe villagers' lives at Ko Ma-phrao, Ban Banrong, Phuket; as for Ko Ma-phrao there is homestay as tourist services.

20. Sura Ththani-Ko Samui-Ko Pha-ngan: have a trip and enjoy watching gardeners' lives along Bang Klong Bai Mai, visit orchard of rambutans, durians, mangosteens, try local food, good taste, fruits at Ban Li Pa Noi, Ko Samui; visit cultural village, Ban Ma-duea Wan, Ban Boran, visit fishermen's lives on Ko Pha-ngan.

21. Nakhon Si Thammarat-Pattalung-Songkhla: delighted with beautiful color anthuriums from the Netherlands, buy organic vegetables, good taste fruits at agro-tourism sites, Amphur Chang Klang, Nakhon Si Thammarat, buy products of Kra Chut Handicraft Village and Coconut Shell Handicraft Village, Pattalung center; try famous Ko Yo's fruit i.e.: Sawa (sapodillas), jackfruit and wood apple; learn about local fishery i.e.: vertical fish trap and horizontal fish trap and breeding snakehead mullet fish in floating basket, Songkhla.

2.8.13 Benefit of agro-tourism promotion (Research Center Co., Ltd. Thai Farmers Bank, 2000)

Direct benefit

1. Help development of agro-tourism sites
2. Community gains more income

Indirect benefit

1. Initiate participation in local management
2. Help farmer development
3. Make farmers proud of themselves

2.9 Concept of analysis for potentiality assessment

2.9.1 Concept in ranking potentiality of tourism sites

Developing tourism sites in various areas firstly needs consideration of capacity or readiness of the sites, whether suitable for development or not and at what level. Besides, if there are too many scattered tourism sites, they will face problem about limitation of related matters such as personnel, equipment, technology and

budget. As a result, it is necessary to select the very first potential tourism sites or capable of being developed as to be covered by such very limited resources. Therefore, criteria for consideration of tourism sites in various aspects have been set up. The result of all tourism sites assessment will be compared and ranked for priority. (Association of Researcher, 2006: 33).

Concept of potentiality ranking is value and readiness of tourism sites which means components of the sites which will welcome or be attractive to tourists and lead to decision to visit that place. It can be divided into five criteria ie: access, facility, environment, carrying capacity and present reputation.

2.9.2 Analysis of Element of tourism sites

Principle elements in consideration of agro-tourism sites (Agricultural Promotion Department, 2000: 29-30)

1. Attraction. Every agro-tourism site must have an attraction which can be divided into three types i.e.:

1.1 Landscape attraction

1.2 Attraction of special characteristic of natural resources or by its identity such as cave, water fall, hot spring, island, etc.

1.3 Activity attraction such as demonstration about activities, produce and agricultural product sale.

2. Facility and safety

3. Signs which are important to agro-tourism since this kind of tourism focus on learning and activities.

Criteria for selection of agro-tourism sites of Conservative Fund, The Tourism Authority of Thailand provide two principle of consideration; first is area readiness, secondly is service readiness, as follows:

1. Providing visiting route apart from actual agricultural area

2. Providing area or building for selecting and agricultural products packing

3. Having selling place for produce or processed product together with price label

4. Having a lecturer

5. Providing signs for tourists
6. Having documented media
7. Willing to receive tourists with an advance appointment
8. Having fixed amount of tourists, entrance and service price (receipt or financial evidence will be given).
9. Open every day (including governmental holidays)
10. Providing local food and beverage, herbal or fruit juice
11. Providing parking area
12. Providing restrooms

Guideline for selection of agro-tourism of Agricultural Promotion Department is as follows:

1. Attractive major factors such as agricultural prominence (naturally or man-made) identity of way of life, culture, local life style, festival or special phenomenon including atmosphere and beautiful landscape.
2. Minor factors such as surroundings, beautiful landscape, economic and social status, farmer cooperation or agricultural community are interested and highly intend to cooperate.
3. Supporting factors and facilities such as accommodation, food shop, souvenir shop, local rules and regulations, various facilities and budget.
4. Infrastructure and communication such as electricity, tap water and communication, main tourism route where many people passing by, format of transportation (land, water, air)

Thailand Institute of Scientific and Technological Research (2000) set down concept of variation for assessment of potentiality of tourism sites as follows:

1. Agricultural characteristic
2. Attraction
3. Infrastructure
4. Potentiality at one level such as tourism experience
5. Demand of tourism use
6. Supporting tourism sites
7. Capable of one year round tourism
8. Agricultural officers' opinion

In summary, concept of potentiality ranking of tourism sites contains these elements: value of the sites which means tourists' attraction and readiness of the sites for tourists' reception i.e.: access, facility, surroundings, carrying capacity and tourism management.

2.10. General information about Thawi Watthana District

2.10.1 Location

Thawi Watthana District was named after the name of Thawi Watthana Canal, along canal connecting Mahasawat Canal to Bang Pai Canal. It runs through north western and south western of the district. It has 50.219 km² (2007) which located on Bangkok which it is agricultural area mixing with urbanized area. At Thonburi side, it is located on right side of Chao Phraya River. Its boundary is as follows:

- To the North bounded with Amphur Bang Gruay (Nontaburi Province) and Mahasawat Canal
- To the South bounded with Bang Kae and Nong Kam districts and Bang Chuek Nang Canal, Thawi Watthana Canal and Bang Pai Canal.
- To the East connected with Taling Chan district and east Kanchanapisek road
- To the West connected with Amphur Sampran and Amphur Phutthamonthon (Nakhon Pathom Province)

2.10.2 Geographical Features

Bangkok located near equator, therefore it has tropical climate. The geographical feature is low at high land delta at Chao Phraya River which is an important river. It is considered fertile and suitable for Agriculture.

2.10.3 Climate

It is influenced by seasonal monsoon and makes three seasons i.e.: rainy season (May-October), winter (November-January) and summer (February-April). The usual temperature is 25-35 °C

2.10.4 Governing administrations

Bangkok Metropolis is composed of 50 districts, which further divided into 169 townships. The administration of Bangkok is independent like other provinces where local authorities are responsible for peoples living condition and be supported by the Government. The Government and Vice-Governor of Bangkok must be elected in charge of Bangkok Administration of four year term each.

As for Thawi Watthana District, it is divided in to two townships i.e.: Thawi Watthana and Sala Thammasop townships.

2.10.5 Population

Bangkok has 5,716,248 population [Census Records Unit, Census Records Center Office, Governing Department, surveyed in 2007 (<http://dhds.nha.co.th/internet/info.info030.xls>) in a 1,568,737 km² area. The majority citizens are Thai, with about 20% Chinese and others. The farmer life style and easy culture have brought people to be close together and be friendly among them selves, thus Thailand become “Land of Smiles” since them. This makes Thailand an attractive country to be visited.

Thawi Watthana District site a population of 67,896, 31,748 men and 36,148 women (Bureau of Registration, Governing Department 2006), is also an interesting district of its own kind,

2.10.6 Economic Status

Bangkok is the center of economy of Thailand and is among those of Southeast Asia. The Thai economy comprises two main portions. The first portion comes from Agriculture which can be considered the country's main revenue. It worth 25% of Gross Domestic Productions (GDP) since 1985 and has tendency to grow bigger. Besides, 60% of each year exports are agricultural products. Another portion of Bangkok's revenue comes from manufacturing industry and service which includes the tourism industry.

2.10.7 Tourism

Bangkok is the first stop for overseas tourists since it is Thailand's capital and center of administration, economy, education and culture, having good transportation and facility, and full of attractive tourism sites. Moreover, Bangkokians, like other Thais, are very friendly, kind and generous which make foreigners feel warm and welcome.

2.10.8 Transportation

There are many kinds of transportation i.e. train, sky train, bus, taxi, tuk-tuk, boat, and motorcycle-taxi. There are 8 primary roads i.e. Kanjana Phisek Road, ground-levelled and elevated Boromrajchonnani Road, Uttayarm Road connecting Puttamonthon Road 2 and 3, Thawi Watthana Road, Thawi Watthana – Kanjana Phisek Road and 2 secondary roads, i.e. Sala Thammasop Road and Suan Pak Road.

2.11 Tourism sites in Thawi Watthana District

2.11.1 Background

Previously, Thawi Watthana area in Taling Chan District, Thonburi Province. As Tambon Sala Thammasop Then, as this sub-district area is too big and larger population, seven villages within Tambon Sala Thammasop out of this township were combined to be in the south Thawi Watthana Sub-District under Taling Chan District, Bangkok Metropolis and finally became Thawi Watthana district on 6 March, 1998. At present, it has 3,350 rai of agricultural area; there are many canals that may be used in fruit gardening. However, these agricultural areas have been gradually replaced by housing construction project especially along the main road of the district.

Thawi Watthana District is an agricultural area which is nearby Bangkok and suitable for any kind of Agriculture such as rice farming, fruits and vegetables plantation in appropriate mixing format. Most folks in Thawi Watthana are farmers from ancestors. It is full of natural water sources. There are 14 canals (Klong) bringing up their lives, i.e. Klong Thawi Watthana, Klong Bang Ramard, Klong Dumnoen, Klong Yai Mong, Klong Mahasawat, etc. which full of ancient legend

aged about 100 years same as the age of their ancestors. This means canals are very valuable to Thawi Watthana community.

2.11.2 Existing tourism attraction in Thawi Watthana District

There are many attractive tourism sites and activities of architecture beauty such as:

Uttayarn Road The scenic road to Phutthamonthon where pylons, electric poles of beautiful swan sculpture stand in a row. Uttayarn road is one of the projects to develop area around Phutthamonthon. It connects Phutthamonthon Road 3 and 4 in parallel with Boromrajchonnani Road. It is beautifully designed, there is a fountain and surrounded with flowering plants and trees, 979 swan pillars, foot-path, bike-lane, lotus ponds of various color.

Puranawat Temple It is a private temple built since BE 2329 at the south of Khlong Mahasawat connected with the railway. Formerly, it is called Wat Nok or Wat Klang Khlong because it used to inhabit by a lot of migrated. King Rama IV had inspected the canal and gave some money to “Nai Bun” and named the temple as “Ratchabuntam Temple” which changed to “Puranawat Temple” later.

Bangkok’s local museum, Thawi Watthana District located in Puranawat temple school. It is where element information of Thawie Watthana is collected, i.e.: background, life style, important places, tourism sites and community products.

Thonburi market or Sanam Luang 2 The new open market in Thawi Watthana. There are all kinds of fruits and vegetables produce including garden decoration ornament, equipment and various aspects. Its attraction is being Thailand’s biggest center of cut orchid and beautiful aquarium fishes. It provides area for exhibition and occupational trainings.

Museum/Museum A place where various kinds of nowadays and ancient stuff of villagers are collected and displayed, for example, toys, books, stationeries, kitchenware, daily life’s utensils. It is like a heritage store house conveys ancient day until now. There are imitation shops in BE 1957 era like coffee shops, drug store, hair stylist shop, etc.

Kamnan Chuchart's Buddha image museum There is a display of Buddha images from Kupta era to Rattanakosin era.

Ancient Siamese cat Park There is genuine Siamese cat "Kow Nanee" famous in good shape, active and all white. The most importance, having two different color of eyes, descended from Siames

Community Product The community grouped together to form Resin product Group, Ruam Kuer Village which makes the village lively and colorful. This group uses resin as the main material to mould various forms of arts like small and big dolls, bowls, dishes, jars, mugs, etc. according to their imagination. It is awarded "Five stars OTOP" and is placed for sale in leading super markets and brings quite much revenue to the community. Besides, they produce clay jasmine leis which are famous. Other interesting products are fruits and vegetables, flowering plants, cut flowers, mild green tea, herbal shampoo, handicrafts, artificial flowers from lotus leaves cloth, scented candle, umbrella cloth, kite, ornament, color stones.

It can be said that physical beauty, long background of community gathering, way of living which still conserves tradition, culture, relationship, love and care tied up all people in Thawi Watthana together and maked Thawi Watthana District a nice place to live, full of valuable resources which worth keeping.

2.12 Related researches

The study of potential agro-tourism by Orn-ar-nong Rurcharit (2002) concerning Sampathuan townships, Amphur Nakhon Chaisri district as a potential agro-tourism site found that various factors about physical characters, tourism-sites, agro-tourism management, readiness of community, attractions are significant for becoming an agro-tourism site.

Police Lieutenant-Colonel Jongkonpat Jettanajit 2003) study on community participation in sustainable agro-tourism management: case study of visiting gardens around Khlong Mahasawat, Buddha Montol district, Nakhon Pathom province, found that most factors are time, fuel, media, drinking water at tourism sites. It is also found that the project can not proceed if people are not ready for investment and perform.

The achievement of the project will scarcely be seen; but when the project is better known and visited by increasing tourists, the full benefit may be gained. The community, therefore, perform their duty willing, keep the village clean and nice, conserve internal and external surroundings. They help organizing tourism activities which are useful for learning process, gaining experience. The information about environmental condition of tourism sites and resource conservation in the community is provided.

Somjai Kaikaew (2005) has studied the evaluation of potentiality and demand in eco-tourism management in Bang Pru Community, Surat Thani Province and found that the evaluation result does not conform to the management in some indicator factors; as a result, a training providing knowledge about eco-tourism should be held prior to evaluation so that the result will be correct.

Pradub Rienroo (1998) has studied guideline for the development of tourism site environment and community economy promotion, Tiling Chun floating market, Bangkok and found that being in conformity with Government's Policy, suitability with cultural tourism, budget, and response in participation of community and capability of environment promotion play a significant role in development

Association of researchers in patronage of The National Research Council (2006) has researched potentiality of agro-tourism in Samut Songkhram Province and found that factors to be considered where to develop as an agro-tourism are freshness of fruits, kind and quantity of fruits, provision of places where tourists may stroll around, convenience, wideness, processing of processed products, having home stay provided, services and facilities such as food shop, beverage, maps, signs, access and public relations.

Naridsara Sathanasaowapark (2002) has studied the analysis of potential in agro-tourism development to be the source of revenue apart from Agriculture, and found that there is high potential but somewhere may not worth the cost of investment. It is suggested that the knowledge about sustainable tourism should be provided to organizer and tourists. Assessment and examination of impact occurred from tourism should be done regularly.

Maturod Prabpairi has studied potentiality in tourism sites management of Thai Song Dam Community, Ban Kae Yoi, Khao Yoi townships, Khao Yoi district.

Phetchaburi province and found that the community has potential in managing tourism sites. They have gathered into a group either formally and informally under leadership of a strong leader. The gathering depend on the same race, culture, system, community ideal, two types of economic perform and community joining in decision making. Factors that affect community potential are as follows: strong community culture inherited from ancestors, family system, belief in ancestor's spirit and ceremonies, community participation from accessing to information to sharing benefits among members, community independence. They realize that tourism is supplementary occupation so they do not only rely on tourism.

Patnari Thienkittana (2004) has studied Agro-Tourism Management, case study Bang Rak Noi townships, Nontaburi province and found that there are five elements, i.e.: tourism resources, management, community participation, learning, tourist satisfaction. Besides,if activities in the area are diversified, tourists will come more and that means tourism help facilitate people in agricultural career, knowledge relating to Agriculture will be shared to tourists. It is also found that tourism is only an activity that urged farmers to improve their agricultural community to have more convenient public utility, which also helps conservation of sustainable environment, society and culture. By the fact that agro-tourism is the factor that makes farmers, gardeners and all people in community realize the importance of having orchard in Bang Rak Noi agricultural farm forever. Agricultural farmer life style and culture can convey concept of doing agricultural farm to reach sustainability and conservation as well as impression to visitors.

Office of Research Supporting Fund (2005: report), studying tourism in Mae Kanpong Village, Chiang Mai Province, tourism management of Bang Chao Cha townships, Arng Thong province and tourism management of Nong Mae Na townships, Khao Kor district, Phetchaboon province, found that Mae Kam Pong Village was the model for homestay and conservative tourism village where tourists can study life style and culture of community; at the same time, community can study together and be proud of themselves by the fact that capability of the village has been gradually developed. There are services for tourists to study highland environment nature, to visit tea plantation and be overwhelmed by villagers' hospitality. In this nature, everybody in the village participated in the management, benefit sharing

equally and income sharing. Tourism has been managed as cooperatives. Sharing net profit of cooperatives among members of community-based tourism must consider the significance of natural resources environment, continual sustainability from generation to generation either in culture, life style and balance aspects. When thinking of tourism, carrying capacity in tourism resources and culture should be considered.

Bang Chao Cha also provides accommodation as home stay; it is surrounded underneath the shade of orchard. At Bang Chao Cha, every house owner takes part in management; it opens for all tourists to have a chance to take a ride by car, bike local car to look at life style and basketwork product demonstration. This is to recover local culture and to connect to tourism, to promote local wisdom that makes every folk love his/her land and work in harmony, to refresh water life style, create job, career and income. It even builds network with nearby community-based tourism. In 2001, the Government had a project on agro-tourism supporting Bang Chao Cha to be a tourism industry village since there is agricultural fields like paddy, orchard which are considered community natural resources, they only need unity and strength building and participation.

As for Tourism management in Nong Mae Na townships, it is found that tourism creates job and career to villagers as they help conserve forest together with National Park. How to promote is to use tourism as a tool in keeping and conserving nature resources. Rules and regulations to conserve the area have been set. Cooperation with network to exchange information is also necessary. Plan should be laid down as well as to be followed. Problem (if any) should be solved.

Chomyong Toethong et al., (2002) had carried a practical research to develop sustainable tourism under the concept of sufficient economy. In the case study of Phetchaburi province, found that tourism there is a mixed tourism of life style, culture, history and tourism activity conservation. Calendar of activity and festivals have been made. This format of tourism activities is set by all community by considering life style, culture, tradition, local wisdom and natural resources in community for the purpose of maintaining their sufficient life style and can rely on them. Tourism only brings an extra income and adds stability to themselves and community, and makes them realize the value of their community care and proud of the community under the concept of sufficient economy.

Somchai Sanunmueng (1998) has studied community and participation in developing tourism and found that community participation in tourism management is necessary from the stage of preparation, planning, supervision, resource management, participation in service until the stage of benefit sharing. The importance of natural resources and environment should be considered. The significance is, good participation should be stressed on group rather than on person; therefore, related organization also play a significant role.

From information on Participation of community in the management of eco-tourism of Misara Samart (2000) found that there are two organizations which should be involved in tourism management i.e.: local community or local authority joining with a representative from local community. As for community participation, there should be a measure in performing so that participation will be effective and reach objective of tourism. The work should be done from three partnerships. There should be brain-storming, meeting to specify role, responsibility and having mission and to develop community's learning. There should be funding from shareholding or membership fee and a plan of tourism development for better understanding should be clearly specified.

Prakobsiri Pakdipinij (2007) has studied sustainable tourism development case study waterside tourism, Taling Chan Community who lives next to the Canal, Bangkok and found that it has potential in developing to be a sustainable tourism. By the fact that, there are diversity of tourism resources: natural tourism sites, waterside life style, religious places, orchid garden, vegetable plantation. Access can be held by land and water transportation. It is safe in the site because it is family-based society, people in the community are aware of safety. It has high carrying capacity because the tourism is based on circulation basis. However, it still needs development and improvement of facilities and community participation. Five guidelines for tourism development have been suggested: development of tourism format to have variety of routes and activities, promotion of community participation, development of sustainable tourism market, development of service capacity-based tourism and conservation of tourism resources.

From overall study, it is found that in developing tourism especially community based tourism, the community must have distinguished and unique tourism

resources. There should be tourism service factors such as transportation, food shops, accommodation, and mixed activity. It is also found that community participation in every level in development from specifying policy, implementation and evaluation is significant for the achievement. Besides, tourism capacity also affects the development of tourism sites to achieve sustainability. At the same time, if appropriate income and fair distribution of resources have been shared to people, problems and obstacles in tourism management will be reduced and should be guideline for sustainable tourism development.

CHAPTER III

RESEARCH METHODOLOGY

This study focused on the assessment of agro-tourism potentiality in Thawi Watthana District, Bangkok. The main interest was on the capacity of tourism resources and possibility in developing Agro-tourism. The study was carried in quality aspect by using an assessment form on potentiality of 8 Agro-tourism sites in Thawi Watthana District where there are located and means of communication. The expected area was at least 2 rai in size. Discussions with farmers on agricultural sites were carried out by dividing into groups comprising of 8 farmers, a community leader and 4 representatives from concerned organizations, in order to gain an in- depth knowledge that could be scrutinized. The principle, procedure and method of the study were as follows:

3.1 Data source

There are two sources for the study, the secondary data source and the first-handed information with the details as following.

3.1.1 Secondary data sources

For a background knowledge, the researcher collected the data from technical documents, related published ness books, brochures, printed matters, periodicals, and other media which were related to tourism in Thawi Watthana District. These data gave information on the location, boundary and geographical features. The data sources were several governmental agencies, such as The Office of Thawi Watthana District, The Division of Geographical Information, Bangkok Metropolis, and Division of Tourism. Moreover, the general data on tourism, agro-tourism sites and activities, data on assessment of potential agro-tourism, policy,

related rules and regulations were received from various organizations e.g. the Division of Tourism, The Bureau of Culture, The Ministry of Tourism and Sports, Bangkok Metropolis, The Tourism Authority of Thailand, The Office of Tourism Development, The Agricultural Department, and The Agricultural Promotion Department. Others research data were available in various universities such as Sukhothai Thammarat University, Mahidol University, Kasetsart University, Ramkhamhaeng University. These data formed up fundamental concept and theory to be analyzed, then to be checked with researcher's collected data.

3.1.2 The first-handed information

The studies follows secondary data by collecting directly from target groups and evaluate potentiality of agricultural sites. Data were collected by noticing, interviewing in depth, and then holding focus group meeting to obtain deep data and use the same guideline to develop tourism, using searched data and literature review which is involved in agro-tourism to the utmost benefit as follows,;

3.1.2.1 Factor on Agro-tourism management

Factor on Agro-tourism management (Patnari Thienkittana, 2004: 25) can be divided into three factors i.e.: Agro-tourism resources, Agro-tourism services and Agro-tourism market.

3.1.2.2 Agro-tourism procedure

Agro-tourism procedure comprises of four steps i.e.; established management strategy, established service infrastructure and fund, cooperate with tour agency and local community.

Strategy of Agro-tourism management is as follows:

1. Evaluate resources that can be used in tourism activities i.e.:

1.1 Condition of natural resources, agriculture and seasons

1.2 Facilities

1.3 Culture and tradition

2. Set tourism activities

2.1 What and level to improve

2.2. Activities management

2.3 What to convey to visitors

2.4 Interest or attractions and route

3. Plan activities and type of tourism in the area

3.1 Assign whom and how to perform activities

including its format

3.2 Arrange signs

3.3 Setting tourist information center

3.4 Developing handicrafts and souvenirs

3.5 Searching for fund

3.1.2.3 Guide for agro-tourism management

Agro-tourism is involved of three groups of people i.e.: garden owners, tour operators and guides and tourists; therefore, there are three guidelines i.e.: garden owner management, tour operator and guide management and preparation of tourists for traveling agricultural farms (Rampaipan Kaewsuriya, 1999: 27-29). Guides for garden owner management are :

1.Prepare tourism site that can be seen from everywhere

2.Prepare demonstration corner together with personnel in charge

3.Tour guide or leader must be available

4.Relax corner where food and beverage and products are available

5.Clean toilets should be provided

3.1.2.4 Preparedness of tourism sites for visiting and participating in agricultural activities

Tourism area site and additional, concaved, co-activities which should be prepared (Patnari Thienkittana, 2004:29) shall have short-term

activity; tourism operator shall provide equipments for tourists or tourists themselves may prepare such tools. The activities are

1. Visiting agricultural farm tourists may have fruits by picking up from tree by themselves or by buying from personnel in charge.
2. Joining short term local activities with villagers such as output processing

3.1.2.5 Factor of tourism sites for analysis

Agricultural Promotion Department has laid down criteria to consider qualification of agro-tourism site on basis of three principles as follows: (Agricultural Promotion Department, 2000: 29-30)

1. Attractions. there are three of them i.e.: landscape, special character and activity
2. Facility and safety
3. Sign and direction

Division of Conservation, Tourism Authority of Thailand also considers on 11 topics of readiness of area and tourist services as follows:

1. A tourism route is separated from agricultural area.
2. Area for selection of agricultural products is provided.
3. Area for sale of fresh agricultural products is provided.
4. An expert lecturer is available.
5. Signs are provided.
6. Information documents are distributed.
7. Willing to accept tourists who book for their visiting in advance.
8. Number of tourists, ticket price and other services are informed. The sites are open every day.
9. Local food, refreshment such as herbal juice or fruit juices are available.
10. Parking area is provided.
11. Toilets are provided.

Guidelines for selection of Agro-tourism area, setting by Agricultural Promotion Department, are as follow:

1. Main attractive factors i.e.: outstanding agriculture, life style identity, culture, local life style, festival or special phenomenon including beautiful atmosphere and landscape.
2. Supplementary factors i.e.: environment, beautiful landscape, economic and social condition, farmer cooperation or best cooperation and willingness from agricultural community.
3. Supporting factors and facilities i.e.; accommodation, food shop, product shop, rules and regulations of community, various facilities and supporting budget.
4. Infrastructure and communication i.e.: public utility (electricity, tap water, communication) main tourism route which is the route where a lot of people passing by, traveling format (land, surface, air).

Significant deviation in assessment of agro-tourism potential (Thailand Institute of Scientific and Technological Research, 2000) are as follows:

1. Character of agriculture
2. Attractions
3. Infrastructure
4. Availability of supplementary tourism-sites
5. Capacity of being a tourism site for the whole year

3.2 Data collecting

1. Searching for data of agricultural sites about potential of Agro-tourism, from Agricultural officer of Bureau of Thawi Watthana District by having not less than 2 rai emphasizing on fertile agricultural sites and communication means as target group.
2. Design a form for the assessment of potential agricultural site
3. Assess the potential of each agricultural site
4. Observing
5. In depth interviewing

6. Organize focus group meeting composed of farmers who are the owners of assessed agricultural sites, community leaders and involved persons as target groups.

In examining data collected from First-handed information and agricultural personal interviewing, it can be assumed that 8 agricultural sites have Agro-tourism potential. As for data collected from using assessment form in each agricultural site by observation and in depth interviewing, record data and give mark in each indicator in assessment form resulted on the rank of each agricultural site. From focus group meetings, relevant and useful information including suggestions and recommendations which turned to an outline of Agro-tourism promotion in Thawi Watthana District have been collected.

3.3 Population, target group and main data provider

Purposive sampling has been selected by considering from 8 agricultural sites of area more than 2 rai, where there are community means, thus 8 farmers who are owners of agricultural sites are included. Then, Group meeting comprises of 4 representatives of the 8 target sites plus a district tourism official and a bank authority with 2 interested farmers and 1 target who gave a ring.

3.4 Tools used in the study

1. Assessment form for agro-tourism potential

Assessment form will be brought to each agricultural site to assess its potential; marks will be given in the range according to data collected by interviewing and observation. Proceed in this cycle until 8 agricultural sites have been finished.

A focus group meeting comprises of 8 farmers from assessed agricultural sites, community leader and five related organizations, fifteen persons altogether, will be held to brainstorm and find how to promote and develop Agro-tourism in Thawi Watthana District by connecting agricultural sites to main tourism sites in nearby areas.

When the form of assessment has been already created, it will be used in trial assessment to see whether it is accurate and whether all aspects have been covered or not, if not, it will be appropriately invented.

3.4.1 Step in inventing tools

The assessment form is the tool invented to be used in observation and target farmer interview. The marks will be given in the assessment form to evaluate Agro-tourism potential. The tool has been created on the basis of tourism as follows:

- 1) Study about tourism and assessment of tourism potential from various technical documents and related researches to be information in assessment form invention.
- 2) Specify scope of agricultural site assessment form based on information obtained.
- 3) Invent assessment form within the scope set, clarifying the marks into different levels.

3.4.2 Factors to be determined as criteria for assessment for potential of agricultural tourism sites.

In the assessment of tourism site potential for tourism promotion and development, the capability of readiness of agricultural sites is to be considered for the very first priority by setting criteria for consideration of qualification in various aspects. The potential will be ranked according to the marks gained.

Criteria set for assessment of potential of agricultural tourism sites are collated based on from criteria for the assessment from various sources such as these for the assessment of natural tourism sites, cultural tourism sites, ecotourism sites (Office of Tourism Development, 2549), criteria for judgment of Thailand Tourism Award, in the type: of outstanding tourism community (Tourism Authority of Thailand 2550). These criteria will be used as guideline. Indicators will be adapted to fit the type of assessment which is Agro-tourism. Knowledge gained from researches and experiences from setting criteria for Thailand Tourism Standard assessment have also been applied for the best-suited for the best-suited to the assessment of agricultural tourism potential.

Data used in the assessment comprises of 2 sections i.e.: personal fundamental data and possibility of Agro-tourism development.

Part 1 Personal fundamental data

1. Name
2. Sex
3. Duration of living in the area and period of agriculture

Part 2 Data of possibility in developing agro-tourism divided in to 3 components, 8 criterions.

First Component: Value of destination, consisting of 2 assessed criterions.

1. Physical value
2. Biological value

Second Component: Basic facilities and transportation, comprising of 2 assessed criterions.

1. Basic Facilities
2. Transportation

Third Component: Management, consisting of 4 assessed criterions.

1. Tourism activity management
2. Management of tourism service
3. Management on knowledge
4. Environmental and safety management

3.4.3 Marking

Marks will be given by considering whether qualification of Agro-tourism sites to be assessed is suited for which grade of marks which are divided into three levels:

High = 3 points, Medium = 2 points, Low = 1 point

Table 3.1 The levels of assessed scores based on agricultural areas, components, criterions, and indicators

Factor 1 Component: Value of destination

Criteria	Indicator	Mark Level
Physical Value	1.1 Physical value	
	1.1.1 Size of agricultural areas	
	<ul style="list-style-type: none"> Available agricultural areas for sightseeing < 3 rai 	1
	<ul style="list-style-type: none"> Available agricultural areas for sightseeing $\geq 3 < 5$ rai 	2
	<ul style="list-style-type: none"> Available agricultural areas for sightseeing ≥ 5 rai 	3
	1.1.2 Maintenance of agricultural areas	
	<ul style="list-style-type: none"> Inconsistent maintenance 	1
	<ul style="list-style-type: none"> Average maintenance 	2
	<ul style="list-style-type: none"> Well-maintained, properly taken care of 	3

3.4.4 Rating the potential

In rating the potential, possible potential range should be set (Uma Tuptiang, 2544). In Thawi Watthana District, the marks have been classified into three levels to be suited to description of each indicator in the form as follows:

1. The minimum level: the lowest level of potential from Agro-tourism site assessment equivalent to 1 point.
2. The maximum level: the highest level of potential from Agro-tourism site assessment equivalent to 3 points

3.5 Ranking the potential

Average point of all factors is ranged between 1-3 points. The rank of potential can be classified into 3 levels as follows:

1. Range from 1.00-1.66 points = high potential
2. Range from 1.67-2.33 points = medium potential
3. Range from 2.34-3.00 points = low potential

3.6 Data verification

Data verification is to verify the accuracy and completeness of data in the assessment form and to assess data in each site. Data from focus group meeting is also verified and grouped for the convenience in analysis and interpretation.

3.7 Data analysis and interpretation

In order to analyses data to be in accordance with the objective of the study, the following guideline been set:

Analyze on the basis of circumstance by observing and interviewing in depth in each agricultural area potentiality assessment together with holding focus group meeting for target group, as follows:

1. Collect all data obtained from observation, assessment, and focus group meeting to brainstorm how to develop ago-tourism.
2. Verify data for accuracy and completeness
3. Interpret data gained from assessment form
4. Proceed content analysis
5. Summarize assessment form and brainstorming
6. Plot agricultural sites on the map

CHAPTER IV

RESULT

The potential assessment in Thawi Watthana District was conducted in 8 agricultural areas from March to June, 2009 by using the designed evaluation forms and the brainstorming of the agriculturists and the involved participants. Then, the information was evaluated and assessed its potentiality of the agricultural areas in Thawi Watthana District. The study results are divided into 2 sections as followed:

Section 1: The potential assessment of the Agro-Tourism destinations.

Section 2: The results of agriculturist's opinion towards the development guideline of the Agro-Tourism in Thawi Watthana District.

4.1 The potential assessment of the Agro-Tourism destinations.

The potential assessment of the Agro-Tourism destinations in Thawi Watthana District was performed through the assessment evaluation comprised of 2 sections including the general information of Agro-Tourism destinations and the possibility of the Agro-Tourism development. The results of the study as followed:

4.1.1 General information of Agro-Tourism destinations

The information on Agro-Tourism destinations was gathered and using 5 categories in grouping, those are characteristics of agriculture, size, position, strength and opportunity, and threat and weakness of the Agro-Tourism development. The study of 8 Agro-Tourism destinations as followed:

The first site is the Integrated Agriculture according to sufficiency economy with 5 rai in area and located near Thawi Watthana District.



Figure 4.1 Integrated Agriculture according to sufficiency economy

The second site is the Organic Agriculture Area with 2 rai in area and located close to Utthayan Road.



Figure 4.2 Agricultural Characteristics Chemical agent-free Vegetable plantation (Salad)

The third site is the Agriculture area: Orchid with 2 rai 2 ngan in area and located close to Utthayan Road.

The forth site is the Agriculture area: Orchid with 20 rai in area and located close to Liap Klong Thawi Watthana Road.



Figure 4.3 Agriculture area: Orchid

The fifth site is the Rice paddy area: non mechanized old fashioned with 25 rai in area and located close to Thawi Watthana Road.



Figure 4.4 Rice paddy area: non mechanized old fashioned

The sixth site is the Organic vegetative planting area: with 8 rai in area and located on Liap Klong Thawi Watthana Road.



Figure 4.5 Organic vegetative planting area

The seventh site is the Agriculture area: Dragon Fruits Planting with 3 rai in area and located close to Thawi Watthana Road.



Figure 4.6 Agriculture area: Dragon Fruits Planting

The eighth site is the Agriculture area: growing of Orchid and other flower plants, vegetable, and fruit orchards with 25 rai in area and located close to Thawi Watthana Road.



Figure 4.7 Agriculture area: growing of Orchid and other flower plants, vegetable, and fruit orchards

In summary, the sizes of agricultural areas are between 2-25 rai. In total, 5 in 8 studied areas had an agricultural area of more than 5 rai. the orchid garden was mostly cultivated and the paddy was found to be the least were shown

The location of tourist destinations was found to be close to one other. For instance, the area around Utthayan Road, Liap Khlong Thawi Watthana Road, and Thawi Watthana Road, which were all connected to each other with several tourist destinations including Utthayan Road, Putthamonthon, Sanam Luang II, Thawi Wanarom Park, Siamese Cat Park, Sala Daeng Temple, Puranavas Temple (Figure 4.8-4.13)



Figure 4.8 Utthayan Road.



Figure 4.9 Putthamonthon



Figure 4.10 Sanam Luang II market.



Figure 4.11 Thawi Wanarom Park.



Figure 4.12 Puranavas Temple.



Figure 4.13 A way of life of the villagers.

Strengths and Opportunities: It was found that most agricultural production was done within family which was passed down from their ancestors to the younger generation, except the agriculture on orchid garden which used hired workers. Land transportation was available in all studied areas. In 4 areas, there was also water transportation as well. Mostly, they were able to demonstrate their knowledge, except a certain area where they were not able to relate their step-by-step understandings. Most tourist greeting sites were in front of the house, and could accept approximately 4 people in 5 studied areas. One studied area had a meeting room. There were two studied areas that entrepreneur showed interest in home-stay business. There were 2 areas where were television broadcasted about agro-tourism destinations and their agriculture sales had increased. Also, they had brought and sold agricultural produce from other agriculturists to increase their sales as well. Strengths and opportunities are different in each place. For instance, there was a division of land for different uses such as vegetable plantation, breeding animal for consumption purpose, and open land for fish, frog, chicken, cow, and buffalo. There were some places that showed interest in developing their tourist destinations and their produce for consumption use including their knowledge on pastry, craftsmanship, earthen ware handicraft, vegetable plantation, and plantation management. The plantation management could be done through switching its vegetable kinds for variety and continuity. It could be a community selling spot for organic produce and vegetables from other agriculturists. In addition, agriculturists had paid attention in providing service to tourists. There was a sign indicating the organic produce along with television broadcasting, so their sales were increased. Also, the orchids were taken great care of, there were several orders on them. The restaurants had plenty spaces to seats the guests and orchids available for sale in front of the restaurant. The orchid garden was an example place. There were some areas to dry bottles and culture tissues. There were restaurants and available parking areas for large coach. Agriculturists were ready to demonstrate their agriculture skills. They had a good and safe waste management. The agriculture skills were passed on from the parents. The local people were hired to work. Some place was designated to be a control center for rice plantation and knowledge center for students. Students were trained on expanding

plantation grains. The meeting rooms were available as well as the readiness of tourist accommodations. There were experienced lecturers who knew how to demonstrate each step flawlessly. The idea of floating market was also one of them. The leaflets were published and there were several television broadcastings. It was a beginning of how to make biological fermentation and clay pot. Also, the agriculturists had experience in explaining and readiness in demonstration on how to make biological fermentation for Thawi Watthana District. They were enthusiastically ready to make their home a home-stay. They were ready to have sailing activities to accommodate tourists. There was also a plan to plant dragon fruits to harvest its produce for commercial use since dragon fruits were easily edible. Therefore, it could be sold at all times. The harvesting time between father and son was treated as a beginning of learning agriculture process since there were so many types of plants. Once the knowledge and experience in agriculture had increased, they were able to expand its grains and adapt them for a better use, for instance, Phetponthawi Longan. Also, some places were opened as a home-stay and they were available for student tourists. The agriculturists there had experience in explaining and they were ready to demonstrate.

Weaknesses and threats

Mostly, there are 5 studied areas that lacked the advertisement. Most problems were relevant to waste management. For example, the problems were poor waste management in closer areas creating unpleasant atmosphere, no water supply available, restrooms not appropriately covered with poor sanitization, insufficient seating, home located in non-agricultural areas, limited space for agricultural areas, fierce dogs, some agriculturists performed work alone without any help, several adjustments on planting different species. All these might have effects on tourist expectation. Some of their homes were not in agricultural areas and they lacked a good waste management. The details are shown in table 4.1

Table 4.1: Basic information of 8 sites its potential assessment of Agro-Tourism in Thawi Watthana District

Area	Agricultural Characteristics	Size	Location	Strengths and Opportunities	Weaknesses and Threats
1	Integrated Agriculture according to sufficiency economy.	5 rai*	Closer to Thawi Watthana District Office	<ul style="list-style-type: none"> - Agriculture passed on from ancestors to descendants. - Land division for vegetable plantation, and breeding animal for consumption and use such as fish, frog, chicken, cow, and buffalo. - Shown interest in developing their tourist destinations and their produce for consumption use including their knowledge on pastry and craftsmanship. - Have knowledge on clay pot handicraft. 	<ul style="list-style-type: none"> - Closer areas had poor waste management causing unpleasant atmosphere.
2	Organic Agricultural Area.	2 rai	Utthayan Road	<ul style="list-style-type: none"> - Agriculture passed on from ancestors to descendants. - Plantation management performed through switching its vegetable kinds for variety and continuity. - Convenient transportation. - Selling spot for community and bring in vegetables from other agriculturists. - Agriculturists interested in providing service to tourists. - Signs indicating organic vegetables available to increase sales, and accepted television broadcasting. 	<ul style="list-style-type: none"> - No pipe water supply. - Restrooms not appropriately covered with poor sanitization. - Insufficient seating. - Home located in non-agricultural areas.

Note : 1 Rai = 4 Ngan = 400 square meters(m²) = 0.16 hectare (ha).

Table 4.1: Basic information of 8 sites on its potential assessment of Agro-Tourism in Thawi Watthana District (Continued)

Area	Agricultural Characteristics	Size	Location	Strengths and Opportunities	Weaknesses and Threats
3	Agricultural area: Orchid	2 rai 2 ngan	Utthayan Road	<ul style="list-style-type: none"> - Agriculture passed on from ancestors to descendants. - Orchids were taken great care of. - Several orders on orchid. - Convenient transportation. - The restaurants had plenty spaces to seats the guests and orchids available for sale in front of the restaurant. 	<ul style="list-style-type: none"> - Limited agricultural areas.
4	Agricultural area: Orchid	20 rai	Liap Khlong Thawi Watthana Road.	<ul style="list-style-type: none"> - Agriculture passed on from ancestors to descendants. - The orchid garden was an example place. There were some areas to dry bottles and culture tissues. - There were restaurants and available parking areas for large coach. - Agriculturists were ready to demonstrate their agriculture skills. - Good and safe waste management. - Convenient land and water transportation. - Agriculture passed on from patents. - Local employees hired. 	

Table 4.1: Basic information of 8 sites on its potential assessment of Agro-Tourism in Thawi Watthana District (Continued)

Area	Agricultural Characteristics	Size	Location	Strengths and Opportunities	Weaknesses and Threats
5	Rice paddy area: non-mechanized, old fashioned	25 rai	Liap Khlong Thawi Watthana Road.	<ul style="list-style-type: none"> - Agriculture passed on from ancestors to descendants. - A control center for rice plantation and knowledge center for students. Students were trained on expanding plantation grains. - The meeting rooms available as well as the readiness of tourist accommodations. - Convenient land and water transportation. - There were experienced lecturers who knew how to demonstrate each step flawlessly. - The idea of floating market expressed. - The leaflets published with several television broadcastings. 	<ul style="list-style-type: none"> - Fierce dogs. - Some agriculturists performed work alone without any help.
6	Organic vegetative planting area	8 rai	Thawi Watthana Road	<ul style="list-style-type: none"> - Agriculture passed on from ancestors to descendants. - A beginning of how to make biological fermentation and clay pot. - Agriculturists experienced in explaining and ready to demonstrate on how to make biological fermentation for Thawi Watthana District. - They were enthusiastically ready to make their home a home-stay. - Convenient land and water transportation. - They were ready to have sailing activities to accommodate tourists 	<ul style="list-style-type: none"> - Several adjustments on planting different species. All these might have effects on tourist expectation.

Table 4.1: Basic information of 8 sites on its potential assessment of Agro-Tourism in Thawi Watthana District (Continued)

Area	Agricultural Characteristics	Size	Location	Strengths and Opportunities	Weaknesses and Threats
7	Agricultural Area: Dragon Fruits plantation	3 rai	Thawi Watthana Road	<ul style="list-style-type: none"> - Agriculture passed on from ancestors to descendants. - A plan to plant dragon fruits. Therefore, it could be sold regularly. - Dragon fruits were easily edible. Therefore, it could be sold at all times. - The harvesting time between father and son. 	<ul style="list-style-type: none"> - Home located in non-agricultural areas. - Lack proper waste management.
8	Agricultural area: growing of Orchid and other flower plants, vegetable, and fruit orchards	25 rai	Thawi Watthana Road	<ul style="list-style-type: none"> - Agriculture passed on from ancestors to descendants. - A beginning of learning agriculture process because of several types of plants. - Possessing knowledge and experience in agriculture for a long time. - Being able to expand its grains and adapt them for a better use, for instance, Phetponthawi longan. - Opened as a home-stay and they were available for student tourists. - Agriculturists had experience in explaining and they were ready to demonstrate. - Convenient land and water transportation. 	<ul style="list-style-type: none"> - Their homes were not in agricultural areas.

According to table 4.1, the assessment on general information of the agricultural areas showed that most agricultural areas were orchid planting. The size of the areas was between 2-25 rai. They were located near Utthayan Road, Liap Khlong Thawi Watthana Road, and Thawi Watthana Road, which were all connected to one another. Most agriculturists worked together with their family members and passed on from their ancestors. All areas had convenient land transportation. In 4 areas, the access to water transportation was available. Some studied areas showed interest in Agro-tourism. Some areas showed interest in opening their home as a home-stay.

4.2 The potential assessment of Agro-Tourism

The potential assessment of Agro-Tourism in Thawi Watthana District was conducted in order to understand the possibility of developing the Agro-Tourism destinations. The assessments were performed using 3 components, 8 criteria, and 17 indicators.

First Component: Value of destination, consisting of 2 assessed criteria.

1. The value of destination in physical term comprising of 2 indicators including the indicator of the size of agricultural areas and the indicator of the maintenance of agricultural areas.
2. The criteria of value of destination in biological term consisting of 2 indicators including the indicator of variety of grains and the indicator of the integrity of agricultural areas.

Second Component: Basic facilities and transportation, comprising of 2 assessed criteria.

1. The criteria of basic facilities
2. The criteria of transportation consisting of 4 indicators as followed; the indicator on the convenience of transportation, the parking area, the signage to Agro-Tourism destinations, and the linkage or proximity to major tourist destinations.

Third Component: Management, consisting of 4 assessed criterions.

1. The criterions of tourism activity management.
2. The criterions on the management of tourists, comprising of 3 indicators as followed; the indicator on rest area in tourist destinations, restroom service in agricultural areas, and food service.
3. The criterions on the management of knowledge, consisting of 2 indicators as followed; the indicator on the management of tourist destination information and the indicator on personnel who have knowledge on agriculture and tourism activities.
4. The criterions on the environmental and safety management of agricultural areas, comprising of 2 indicators as followed; the indicator on waste management and the indicator on safety of agricultural areas.

All in all, the researcher used the assessment forms to evaluate 8 studied areas by indicating scores of the assessment based on the agricultural areas, components, and indicators in the assessment forms. They were consisted of topics of indicators, levels of the assessed scores, and the average scores as shown in table 4.2.

Table 4.2: The levels of assessed scores based on agricultural areas, components, criterions, and indicators.

Criterion/Indicator (Index)	Agricultural areas/ Level of assessed scores								Mean
	1	2	3	4	5	6	7	8	
First Component: Value of destination									
1.1 Physical value									2.38
1.1.1 Size of agricultural areas									2.38
- Available agricultural areas for sightseeing < 3 rai		1	1						
- Available agricultural areas for sightseeing ≥ 3 < 5 rai							2		
- Available agricultural areas for sightseeing ≥ 5 rai	3			3	3	3		3	

Table 4.2: The levels of assessed scores based on agricultural areas, components, criteria, and indicators (Continued).

Criterion/Indicator (Index)	Agricultural areas/ Level of assessed scores								Mean
	1	2	3	4	5	6	7	8	
1.1.2 Maintenance of agricultural areas									2.38
- Inconsistent maintenance									
- Average maintenance	2	2			2	2	2		
- Well-maintained, properly taken care of			3	3				3	
1.2 Biological value									2.50
1.2.1 Types or varieties of grains									2.50
<u>Rice Paddy</u>									
- Only rice paddy available for commercial use									
- Only rice paddy, vegetable plantation or fruit plantation available for commercial use					2				
- 2 or more purposes for rice paddy, vegetable or fruit plantation available for commercial use									
<u>Vegetables</u>									
- 1-3 Types of vegetables									
- 3-5 Types of vegetables	2					2			
- More than 5 types of vegetables or having fruit plantation for commercial use		3							
<u>Fruits</u>									
- No grains variety									
- Variety of different grains							2		
- More than 2 or having rare grains								3	
<u>Orchid</u>									
- No grains variety									
- Variety of different grains									
- Variety of different grains and having rare rains			3	3					

Table 4.2: The levels of assessed scores based on agricultural areas, components, criteria, and indicators (Continued).

[illegible]

Table 4.2: The levels of assessed scores based on agricultural areas, components, criterions, and indicators (Continued)

Criterion/Indicator (Index)	Agricultural areas/ Level of assessed scores								Mean
	1	2	3	4	5	6	7	8	
2.2.4 Linkage/ Proximity to major tourist destinations									3.00
- Distance from major tourist destinations 5 kilometers									
- Distance from major tourist destinations $\geq 3 < 5$ kilometers									
- Distance from major tourist destinations < 3 kilometers	3	3	3	3	3	3	3	3	
Third Component: Management, consisting of 4 assessed criterions									
3.1 Tourism activity management									2.13
- No other activities, only sightseeing at agricultural areas							1		
- Having one activity for tourists	2	2	2	2				2	
- Having 2 or more activities for tourist					3	3			
3.2 Management of tourism service									2.42
3.2.1 Rest area service available in tourist destination									2.50
- No rest areas							1		
- Rest area available inside the house	2	2							
- Greeting area provided including tables, chairs and benches			3	3	3	3		3	
3.2.2 Restroom service available in agricultural areas									2.50
- No restroom service or using restroom in the house		1							
- Restrooms provided outside, but convenient	2						2		
- Separated restrooms, convenient, and clean			3	3	3	3		3	
3.2.3 Food service									2.25
- No food service available							1		
- Food service available provided by home-owners	2			2	2			2	
- Available Restaurants in or near tourist destinations		3	3			3			

From Table 4.2 illustrated the average score of the potential assessment on 8 studied agricultural areas. According to the average score of each area and the potential assessment, overall, the results showed that 5 agricultural areas were found to be highly potential, accounted to 63%, 3 agricultural areas were considered to be low potential, accounted to 37%, and the average scores of all 8 agricultural are as were found to be high as shown in table 4.3.

Table 4.3: Conclusion of potential assessment studies in 8 agricultural areas

Results	Agricultural areas / Assessed scores								Mean
	1	2	3	4	5	6	7	8	
Total score on each studied area	35	38	43	44	45	43	31	45	40.5
Mean score on different studied area	2.06	2.24	2.53	2.59	2.65	2.53	1.82	2.65	2.38
Potential assessment result	Medium	Medium	High	High	High	High	Medium	High	High

Table 4.3 Illustrates that there are 5 potential areas in total 8.

Data from table 4.3 were separated into 3 groups including topics, indicators, and numbers of locations (percentage) of first score level, second score level, and third score level. Topics, total scores, and mean scores of the potential assessment study on Thawi Watthana Agro-Tourism areas were explained as followed:

Assessed results of first component: Value of destinations in 8 agricultural areas was examined by using 2 assessed criteria including value of destination physically and biologically. The results illustrated that the criteria on physical value identified by the size indicators stating that most agricultural areas were scored quite high as covering more than 5 rai or not, accounted to 62.5 %. On the other hand, the scores on maintenance of agricultural areas were found to be in medium level. The medium maintenance was accounted for 62.5%. However, the rest were found to

be in the high maintenance category defining as nicely-maintained and properly-decorated, account for 37.5%. Nevertheless, the criteria on biological value identified by indicators on variety of grains were found to be in the mid to high range equally. Literally, the variety of rare grains was found to account for 50% and 50%.

Assessed results on second component: The basic facilities and transportation of 8 agricultural areas were examined by 2 assessed criteria including the basic facilities and transportation. The results stated that the criteria on indicators identified by basic facilities were found to be in high level suggesting water supply, electricity, complete phone service, and convenience of use, accumulated to 87.5%. However, the rest were considered in low level. The criteria on transportation identified by the convenience of access to transportation and parking areas were found to be equal. Most criteria were in high score level equally as the transportation was convenient, there was bus access, land and water transportation available, and parking available in the agricultural areas, accumulated to 62.5%. The rest were found to be in medium level. However, the signage to Agro-Tourism areas was scored quite low as there was no signs, accounted to 62.5%. The rest were found to be in medium level. The linkage and proximity to major tourist destinations were found to be in high level as the proximity to major tourist destinations was less than 3 kilometers, accounted for 100%.

Assessed results on third component: The management of 8 agricultural areas consisted of 4 assessed criteria including the management of tourism activities, the management of tourism service, the management of knowledge, and environmental and safety management. The indicators on the management on tourism activities were found to be in medium level stating that there was one activity for tourists to participate apart from the agricultural sightseeing, accumulated to 62.5%. The rest of the scores, accumulated to 25%, were found to be in high level indicating that there were more than two or more activities for tourists to participate. Regarding to the criteria on management of tourism service, the indicators such as rest areas and restroom service in agricultural areas were mostly found in high level equally. It illustrated that most areas had greeting spot with tables, chairs, benches, and separated restroom convenient and clean, accounted for 62.5%. Mostly,

food service was found to be in medium level stating that most home owners had prepared food, accounted for 50%. The rest 37.5% were found to be in high level indicating that the restaurants were available in the agricultural areas. Regarding to the criterions on the management of knowledge, the indicators on tourist information service were found to be in low level suggesting that there was no media for tourist destinations, accumulated to 62.5%. The rest were found to be in the medium level as the information was provided such as leaflets, information posted on website, and personnel knowledgeable on agriculture and tourism activities. Personnel with knowledge with the ability to demonstrate, yet unable to explain detailed step-by-step approaches were accounted for 50%. The rest 37.5% were found to be high level indicating that personnel were knowledgeable and able to demonstrate step-by-step approaches. Regarding to the criterions on environmental and safety management, the indicators on waste management were found to be in high and medium level equally. It implied that the agriculturists had managed the wastes themselves and there was some sorting and separation for garbage collection vehicle before pick-up, accumulated to 50%. The safety of agricultural areas was found to be in high level as it was extremely secured, accumulated to 87.5%. The rest were found to be in medium level as shown in table 4.3

Table 4.4 : The levels of assessed scores based on agricultural areas, components, criterions, and indicators.

Criterion/Indicator (Index)	Amount (%)			Total	Mean
	Level 1	Level 2	Level 3		
First Component: Value of destination					
1.1 Physical value					2.38
1.1.1 Size of agricultural areas	2 (25)	1 (12.5)	5 (62.5)	19	2.38
1.1.2 Maintenance of agricultural areas	0	5 (62.5)	3 (37.5)	19	2.38
1.2 Biological value					2.50
1.2.1 Types or varieties of grains	0	4 (50.0)	4 (50.0)	20	2.50
1.2.2 The integrity of agricultural areas	0	4 (50.0)	4 (50.0)	20	2.50

Table 4.4 : The levels of assessed scores based on agricultural areas, components, criteria, and indicators. (Continued)

Criterion/Indicator (Index)	Amount (%)			Total	Mean
	Level 1	Level 2	Level 3		
Second Component: Basic facilities and transportation					
2.1 Basic facilities	1 (12.5)	0	7 (87.5)	22	2.75
2.2 Transportation					2.41
2.2.1 The convenience of access to transportation	0	3 (37.5)	5 (62.5)	21	2.63
2.2.2 Parking area	0	3 (37.5)	5 (62.5)	21	2.63
2.2.3 Signage showing direction to Agro-Tourism destinations	5 (62.5)	3 (37.5)	0	11	1.38
2.2.4 Linkage/ Proximity to major tourist destinations	0	0	8 (100)	24	3.00
Third Component: Management, consisting of 4 assessed criterions					
3.1 Tourism activity management	1 (12.5)	5 (62.5)	2 (25)	17	2.13
3.2 Management of tourism service					2.42
3.2.1 Rest area service available in tourist destination	1 (12.5)	2 (25)	5 (62.5)	20	2.50
3.2.2 Restroom service available in agricultural areas	1 (12.5)	2 (25)	5 (62.5)	20	2.50
3.2.3 Food service	1 (12.5)	4 (50.0)	3 (37.5)	18	2.25
3.3. Management on knowledge					1.82
3.3.1 Tourist information service	5 (62.5)	3 (37.5)	0	11	1.38
3.3.2 Personnel knowledgeable in agricultural and tourism activities	1 (12.5)	4 (50.0)	3 (37.5)	18	2.25
3.3. Management on knowledge					2.69
3.4.1 Waste management	0	4 (50.0)	4 (50.0)	20	2.50
3.4.2 Safety of agricultural areas	0	1 (12.5)	7 (87.5)	23	2.88

From Table 4.4 It is demonstrated that the indicators in high level included the linkage/proximity of major destinations, accounted for 100%; the basic facilities and safety of agriculturists, accumulated to 87.5%; size of the agricultural areas, the convenience of access to transportation, parking area, rest areas, and restroom service, accounted for 62.5%. The indicators in medium level were the management of tourism activities and maintenance of the agricultural area, accumulated to 62.5%. The indicators in low level were comprised of the signage to Agro-Tourism destinations and tourist information service, accumulated to 62.5%.

4.3 Agriculturist s' opinions towards the development of guideline of the Agro-Tourism in Thawi Watthana District

After the assessment forms of the agricultural areas were evaluated, a group-meeting was conducted in order to receive the opinion from 4 representatives of the 8 target sites plus a district official and a bank authority with 2 interested farmers. The group-meeting was held on Tuesday 9 September 2009 at the farmer school's meeting room at 10.00 am to 12.30 pm. (Figure 4.4).

In the meeting, the questions were asked in order to find solutions for tourism development these include:

- What do you think about the Agro-Tourism management in Thawi Watthana District?
- What are the tourism resources attract tourists to Thawi Watthana agricultural areas in your opinion?
- Are you ready or would you like to have Agro-Tourism or not?
- What are the obstacles in doing Agro-Tourism in your opinion?
- Do you have any suggestions or solutions to the problems?
- A agriculturists were the evaluators and other agriculturists were not evaluated. The government official of Thawi Watthana District and Bank of Agriculture and Agricultural Co-operatives authority expressed their combind opinions on Agro-Tourism in Thawi Watthana District in several perspectives as shown in Figure 4.14



Figure 4.14 Group-Meeting

4.3.1 The opinions of the participating agriculturists

First Agriculturist: who is a farmer and participate in the assessment process, expressed his opinion as followed:

1. He wanted to adopt a new agricultural concept based on by applying the King's sufficient economy concept since Thawi Watthana District located nearest to the center of Bangkok Metropolis, even closer than Nong Jok District and Nong Kam District.
2. He wanted to see other activities related to Agro-Tourism besides farming, such as floating market to attract tourists with continuous activities in order to support tourism and connect with different types of agricultural products.
3. The importance on history and the story of what happened and the collection of tourism photos such as a long history of Klong Thawi Watthana could be taken into account. For instance, in 1878 during King Chulalongkorn reign, Klong Thawi Watthana was constructed. He himself performed the opening ceremony on Friday, Waning Gibbous, in the year of Tiger. Klong Thawi Watthana was built to connect Klong Pasee Charoen and Klong Mahasawad together. Several other canals were later connected to Klong Thawi Watthana including Klong Bangchieknang, Klong Bangnoi, and Klong Bangprom. The east side of Klong Thawi Watthana is Chaopraya River. The west is Nakonchaisri River. Originally, the area was

a mangrove forest. Once the areas dig down around 2 meters, the remains of limpet were still there signifying that the area was once a mangrove forest or grove wood before. Once Klong Thawi Watthana was canalized, water was then available for agriculture. During that time, lands could be reserved for agriculture. Therefore, once water was filled in the canal, it was not necessary to wait for the rain. In that era, a Khwein (100 kgs.) the wagon of rice was sold for only 18 baht. Before the area was rain-fed farm land. Later, wind powered water drawer was used instead. After that, the engine pumps imported from England were used in several agricultural areas such as Putthamonthon, Sala Daeng temple, and Sanam Luang II. All these histories and stories should be educated and collected.

4. Tourist attractiveness including:

4.1 Sala Daeng temple: This temple is very beautiful. The architects from Chalalongkorn University had inspected the place and reported that the temple was constructed according to the architectural standards. This temple was built 20 years after the klong was canalized.

4.2 Utthayan road: This road is 90 meters wide with beautiful wan-decorating electric poles.

4.3 Sanam Luang II: A Open shopping area and open wholesale market for vegetables and cut-flowers and also ritual performance and exhibition site for Buddhists.

4.4 Putthamonthon: Buddhist museum and exhibition site, also for religions performance.

Second Agriculturist: whose land crops much kind of plants and participate in the assessment process. He expressed their thoughts that Thawi Watthana had a great deal attractiveness such as Petponthawi longan with a white skin, and considered one of the rare finds and selling point. There was farming for tourists to participate such as cultivating, sprinkling, transplanting, throwing, and harvesting. Also, orchid is one of the plants that could be exported to other countries.

Third Agriculturist: Who is owned a rice field but not participate in the assessment process. Therefore, he wanted to participate in tourism activity. He wanted

to have a lotus field and fish aquaculture after the regular harvest to earn more to accept the tourists as well.

Fourth Agriculturist: who is a Integrated Agriculture according to sufficiency economy and participate in the assessment process, expressed her opinion as followed:

1. The chemical-free agriculture would benefit both buyers and agriculturists herself. Also, she could be able to sell more and the price was quite stable since this type of product was needed as hygienic food. The vegetable and fruit could enter tourism such as the chemical-free vegetable and fruits could be sold directly to the tourist. This would benefit their health, therefore, it was needed by consumers. Nowadays, Thawi Watthana District office has supported training for agriculturists in growing non-chemical produce. Also, the volunteer soil doctors are available to provide suggestions for interested agriculturists such as making fertilizers. The necessary equipments are provided and there is an exchange of information to increase the potential of the agriculturists and make all this tourism.

2. The tourists could have opportunity to learn how to grow and harvest chemical-free vegetable and fruit by themselves. This could attract more tourists. As a consequence, there would be more retail shops and restaurants.

3. The paddy should be milled to add value.

4. Visiting other Agro-Tourism programs would create better idea on tourism development here.

5. She wanted government to support OTOP's in order to sell to tourists at a reasonable.

6. The boat tour could only access certain agricultural areas only. Also, Obstacle of traveling by boats was the low bridges across the canal and boat with canopy might not be able to get under. Therefore, the problem could be solved with the foldable canopy. Then, the problem wouldn't affect the tradition ways of living.

7. She wanted to bring the outstanding product to a selling point. Different products could attract tourists to come in such as seedless lime, resin dolls from the Ruamkue village, preserved foods from housewife group, and fresh Thai fruits on

season. Now, they are gathering the OTOP's group and there are several participants already.

8. There should be a group of community-lovers in Thawi Watthana District. There should be a coordination of Bangkok Forum to advertise tourist destinations.

9. Thawi Watthana District office should consider setting up a floating market since local people were now ready for tourism. They already started in a small scale but they just did not have facilities such as boats and parking docks.

10. The visiting hours should be set for the Agro-Tourism destinations. The tourists should be educated on different seasons so that they could expect the patterns of Agro-Tourism.

11. There should be an information center for visiting tourists as well as for general public relation.

12. Office of Public Relations Agriculture should provide initial information if the numbers of tourists increase. The sub-division might be added in order to work and propose to the executive committees. The development should be gradually.

13. There should be the prevention on shared resources. The meeting should be held to solve the problems. They should learn from knowledge and experiences from other information sources in order to avoid mistakes.

14. Leaflets, tourist maps, and tourist signage should be available.

15. The current problems are parking lots and traffic signs.

Fifth Agriculturist: Who is a farmer but not participate in the assessment process. Therefore, He thought that there should be a canal tour for Agro-Tourism sightseeing mixed which round tour. The tourists could come by cars, drove through Utthayan road and visited the orchid plantations, Then transferred to boat, or rice versa. Thus there should be accessibility to all kinds of transportation.

Sixth Agriculturist: who is Agriculture Orchid and participate in the assessment process. She called in and gave some pinions that they were ready to open their homes as a home-stay for tourists.

Seventh Agriculturist: He thought that the farm land should be taken great care of. The weeds should be cut. At the beginning, agriculturists wanted government or tourism authority group to help managing areas for cleanliness.

4.3.2 Suggestions on tourism development from agriculturists

1. The direction should be provided from tourist destinations to Agro-Tourism destinations. Land transportation should be provided as well as land connecting to water transportation.

2. Agro-Tourism should be conducted in accordance with seasons since the produce takes time to mature and the conditions might be changed accordingly.

3. The advertisement should be done in different forms by emphasizing some agricultural finds in order to attract tourists.

4. OTOP's should be added more and it has to be cooperation on tourism management.

5. The staffs of local Office of Agriculture should take part and advise the Agro-Tourism in concrete ways.

6. The information center should be available. At the beginning, the government complex could be used in order to promote tourist destinations and it should be done in network system.

7. There should be an executive committee and members to have a meeting on tourism planning on regular basis.

8. The committee system, operating members, and ability of new members should be taken into consideration.

9. Member of agriculturists should seek to gain more experience by studying other areas as well as building up networks.

10. Local people from different group should participate with a group of agriculturists in order to ensure cleanliness as well as to welcome tourists.

4.3.3 The opinions of Bank of Agriculture and Agricultural co-operatives staffs and Thawi Watthana District officers.

1. They agreed with the Agro-Tourism and having tourism along with sufficient economy. It is not necessary to get a loan all the time. Yet, if they need to expand the production ability, then they might need to get a loan.

2. Certain agricultural areas might be suitable for Agro-Tourism because the conditions of areas should be taken into consideration as well.

3. Thawi Watthana District has several wonderful resources such as clean water in canal, a farmer school, fruit gardens, and non-toxic vegetable gardens.

4. Developing floating market would require huge investment. Therefore, there should be a plan on budgeting.

5. The executive committee should be set for the operations. They should be a set of different committee to work in each group. Also, they should have a integration for all departments.

6. Klong Thawi Watthana is a beautiful canal. However, by operating rafting or a boat touring, they have to get permits before doing so.

7. There should be a plan on appropriate and sufficient parking.

8. There should be a proposal on the government support from Thawi Watthana District members.

9. The group of community-lover in Thawi Watthana District is comprised of 39 staffs in board of committees and 9 committee members.

10. Government section should take part in cooperation since government has power. Agro-Tourism team should not be set by themselves. Also, there has to be integration with all departments. Otherwise, they would not be able to make it.

11. Developing floating market could be done through water rafting in the canals or retail stores along the river.

12. Location, activities, and products are available for sale. Yet, the most important is the willingness to get through tough times since they might not be able to sell much at the beginning.

4.3.4 Collective opinions gathered from group-meeting

Based on the information proposed in the group-meeting, the conclusions are as followed:

1. The Agro-Tourism benefit local people starting from selling more agricultural products. In addition, vegetables and fruits could be sold at a better price. Agriculturists earn more money. Local shops and restaurants could also sell their products more.

2. The tourism resources are tremendous including tourist destinations and agricultural areas such as Phutthamonthon, Sala Daeng temple, Sanam Luang II, Utthayan road, rice paddy, orchid garden, fruit plantation, and vegetable plantation. Additionally, there are unpolluted canals, farmer school, and chemical agent-free.

3. The attractiveness and uniqueness of Agro-Tourism in Thawi Watthana District are the Agro-Tourism area near Bangkok Metropolis. The tourist attractions are orchid garden, fruit plantation, chemical agent-free vegetables plantation, agricultural ways of living, canals with clear water, farmer school using non-machine pattern, and fruits. The well-known fruit is longan named Phetchpornthawi with a white skin. Also, the OTOP handicraft is, for instance, resin dolls.

4. There should be a participation of tourism management among local community. Agriculturists should consider developing tourism activities such as floating market, rafting, sailing, cooking, running lotus field and fish farm, opening their houses to a home-staying, and keeping the area clean in the tourist destinations. Also, the meeting should be conducted in order to prevent any possible problems related to Agro-Tourism as well.

Furthermore, providing knowledge on growing chemical agent-free vegetables and soil adjustment to agriculturists should be taken into consideration. Regarding to the government sectors, the Agro-Tourism should be done through integration system with all departments. The cooperation from community's genuine needs could bring about the permanence.

5. Regarding to the structure of tourism management, a group of agriculturist stated that there were 39 staffs in board of committee for community-lover group of Thawi Watthana District, with 9 committee members. The proposal was about appointing committee members and board of committees for each set unambiguously.

6. Roles and duties of leaders and the organizations of Thawi Watthana District should be taken into account. The importance of training on soil maintenance and non-chemical agriculture should be taken into consideration. Government sectors should support and advise on tourism information services.

7. Regarding to the readiness and willingness in developing Agro-Tourism, government sectors believed that agriculturists who wanted to perform Agro-Tourism must consider their potentiality of their agricultural areas as well.

8. Weakness / Limits / Obstacles. Based on the agriculturists' opinions, they believed that there might be problems at the beginning since there would be no system such as registration, welcoming area, and community parking. There would also be limits in developing floating market, rafting, boat dock that would require approval from government on construction and budget. There was also problem with boat tours with the roof that wouldn't go through under the bridge. The foldable roof should be taken into account. The government sectors agreed with agriculturists on this. Furthermore, they already thought that there would need more parking and restrooms for floating market and rafting. Also, they would need more signage directing to the tourist destinations.

9. Regarding to the necessary of supportive units, agriculturists thought that the Bangkok Forum Magazine should advertise about this constantly. Thawi Watthana District office should be coordinating center advertising general information, distributing leaflets and maps, and adding more signage to the destinations. Also, they should support the OTOP's and supervise the packaging. In addition, they needed to provide greeting areas for the tourists who visit the community as well as parking. Government sectors should provide agriculture loans. Also, they should allocate agricultural officers who could provide information on Agro-Tourism as well.

10. Systems / Guidelines / Suggestions on tourism management. Agriculturists believed that the linkage from tourist destinations to the Agro-Tourism destinations and activities was necessary. Both land and water transportation should be available. Floating market, rafting, boat tours, and activities should have variety. Activities might include farming, agricultural activities such as sprinkling, transplanting, throwing, and harvesting. They could harvest rice, vegetables and fruits.

The breeding of plants could be included as well. Furthermore, the ideas of value-added products should be brought up as well, for instance, selling brown rice or product packaging. Also, they believed that a study visit might yield a guideline in developing local tourism. In addition, they should have an appropriate timing for different types of Agro-Tourism. On the other hand, government sector agreed with agriculturists on Agro-Tourism in developing floating market, rafting, boat tours, and other tourism activities. They also believed that agriculturists should perform agriculture sufficiently and not to indebt themselves as shown in table 4.4

Table 4.5: Group discussion results:

Topics	Agriculturists and Local Community's Opinions	Government Sector's Views
1. Benefits for local people	<ul style="list-style-type: none"> - Direct Selling more agricultural products to consumers. -Vegetables and fruits were sold at good and stable price. - More retail shops and restaurant opened. 	<ul style="list-style-type: none"> - Agricultural products gained better price. - Agriculturists earned more money.
2. Tourism resources	- Several tourism resources both tourist destinations and agricultural areas such as Putthamonthon, Sala Daeng temple, Sanam Luang II, Utthayan road, rice Paddy, orchid garden, fruit plantation, and vegetables plantation.	- Several tourism resources such as canals with clear water, farmer school, orchid garden, fruit plantation, and non-toxic vegetables.

Table 4.5: Group discussion results: (Continued)

Topics	Agriculturists and Local Community's Opinions	Government Sector's Views
3. Attractiveness / Uniqueness	<ul style="list-style-type: none"> - Agricultural areas and tourist destinations close to Bangkok Metropolis. - Good and rare finds such as Petpornthawi Longan with white skin, OTOP 's such as resin dolls and processed foods. 	<ul style="list-style-type: none"> - Canals with clear water, farmer school, orchid garden, fruit plantation, non-toxic vegetables, and agriculturist's traditional ways of living.
4. Participation on tourism management from local community	<ul style="list-style-type: none"> - Developing tourism activities such as floating market, rafting, boat tours, cooking, lotus ponds, aquaculture, Home Staying, and keeping the tourist destinations clean. - Constantly conducting meeting in order to prevent any possible problems. - Sharing information with groups of agriculturists on growing organic vegetables and soil adjustment. 	<ul style="list-style-type: none"> - The integration system was required to bring about permanence.
5. Tourism management structure	<ul style="list-style-type: none"> - The group of community-lover in Thawi Watthana District is comprised of 39 staffs in board of committees and 9 committee members. 	<ul style="list-style-type: none"> The proposal was about appointing committee members and board of committees for each set unambiguously.

Table 4.5: Group discussion results: (Continued)

Topics	Agriculturists and Local Community's Opinions	Government Sector's Views
6. Roles and duties of leaders and the organizations	- Thawi Watthana District office should take training on soil maintenance and non-chemical agriculture into account.	- Government sector would provide support, advice, and tourist information services.
7. Readiness and willingness in developing Agro-Tourism	- Agriculturists wanted to develop tourism and believed that their agricultural areas were ready.	- Agriculturists had to consider the potentiality of agricultural areas as well.
8. Weaknesses / Limits / Obstacles	<ul style="list-style-type: none"> - There might be problems at the beginning since there would be no system such as signage, greeting area, and community parking. - There would also be limits in developing floating market, rafting, boat dock that would require approval from government on construction and budget. - There was also problem with boat tours with the roof that wouldn't go through under the bridge. The foldable roof should be taken into account. - Problems may arise once performed. Therefore, they had to help each other in solving that particular problem. 	<ul style="list-style-type: none"> - Permission on rafting was required. - Developing floating market and boat dock. - Lack supporting budget. - No parking and restrooms for floating market and rafting. - No signage directing to tourist destinations.

Table 4.5: Group discussion results: (Continued)

Topics	Agriculturists and Local Community's Opinions	Government Sector's Views
9. The necessary of supportive units	<ul style="list-style-type: none"> - They requested that the Bangkok Forum Magazine should advertise about this constantly. - They should support the OTOP's and supervise the packaging. - Leaflets and maps were required, and they needed to add more signage to the destinations. - They had to provide greeting areas for the tourists who visit the community as well as parking. 	<ul style="list-style-type: none"> - The agricultural officers who could provide information on Agro-Tourism as well should be provided.
10. Systems / Guidelines / Suggestions on tourism management.	<ul style="list-style-type: none"> - The linkage from tourist destinations to the Agro-Tourism destinations and activities was necessary. Both land and water transportation should be available. - Developing floating market and boat tours. - Activities should have variety. Activities might include farming, agricultural activities such as sprinkling, transplanting, throwing, and harvesting. - The value-added products should be brought up as well, for instance, selling brown rice or product packaging. - A study visit might yield a guideline in developing local tourism. - An appropriate timing for different types of Agro-Tourism should be considered. - The value-added products should be brought up as well, for instance, selling brown rice or product packaging. 	<ul style="list-style-type: none"> - Government sector agreed on Agro-Tourism in developing floating market, rafting, boat tours, and other tourism activities.

Table 4.5: Group discussion results: (Continued)

Topics	Agriculturists and Local Community's Opinions	Government Sector's Views
10. Systems / Guidelines / Suggestions on tourism management. (cont.)	<ul style="list-style-type: none"> - A study visit might yield a guideline in developing local tourism. - An appropriate timing for different types of Agro-Tourism should be considered. 	

Table 4.5 illustrated the opinions of group-meeting groups. In conclusion, by developing tourism in the areas, it was necessary set the tourist routes together. It might be categorized by different seasons since fruit and vegetable produce have to be cultivated according to the seasons. It was necessary to offer good and rare agricultural produce to the tourists. The OTOP's should be brought into tourism by developing attractive packaging. Also, Thawi Watthana District's staffs should take part and participate in introducing tourism. Local people should share their thoughts and participate constantly or increase members continuously The information center should be set up. At the beginning, the government complex could be used to introduce tourist destinations and manage the network system. There should be a board of committees and committee members to set up meeting to plan for tourism management on regular basis. The structure of board of committees and committee members should be taken into consideration as well as the characteristics of new members in concrete ways. A group of agriculturists should seek more experience by studying other tourist destinations as well as developing networks.

4.4 Researcher's opinions according to field study and information collection on potential assessment in Thawi Watthana Agro-Tourism

1. There might be some changes on land such as land expropriation causing effects on agricultural areas.

2. The advertisement and other information services such as advertising on television would attract tourists to Agro-Tourism destinations more since they would be educated after visiting the areas and understanding the organic agriculture. Once the television has broadcasted, it would be like an advertisement in disguise. If several agricultural areas are supported by being broadcasted in the television, then it would increase the potentiality of that particular agricultural area automatically. It would be a good way to reach consumers without having to pay more.

3. In agricultural engagement, it was necessary to set goals on exporting and improving to certain levels. If they wanted to develop themselves to a higher level, the government sector had to provide better support to agriculturists.

4. In agricultural process, whether the vegetables, fruits, rice paddy, or animal breeding would require certain period of time to mature. The full-grown beauty that could be brought for purchase or for tourists to appreciate would require duration of time, and time is limited. Therefore, it was necessary to inform tourists on different duration of time that they could see a particular agriculture, and there were different based on durations. Changes might occur any time. Therefore, they could plan their trips ahead of time.

5. The coordination and information gathering ahead of time were necessary so that they could plan their trips effectively. If the tourists already plan their trips, they should choose the agricultural areas with a specific duration such as full-grown period. Therefore, the coordinators should provide correct, complete, and current information.

4.5 Obstacles and problems found in the group-meeting

1. They have to stay focused on the key questions. One or more persons should not speak too much. They should allocate certain time to share opinions.
2. Microphones should be brought to use to increase the voice clarity.
3. Microphones provided were not enough. They should add more microphones. Also, the volume levels were not constant.
4. The participants talked to each other. They did not listen to the speakers.

CHAPTER V

CONCLUSIONS, DISCUSSIONS AND RECOMMENDATIONS

The objectives of the study on potential assessment of Agro-tourism in Thawi Watthana District, Bangkok Metropolis are as followed:

1. To assess the potentiality of Agro-tourism in Thawi Watthana District, Bangkok Metropolis.
2. To explore further approaches on increasing the potentiality of Agro-tourism based on the suitability of the agricultural areas.

With this study, Researcher evaluates the potential assessment of the agricultural areas in Thawi Watthana District, Bangkok Metropolis in 8 sites. The criteria in selecting the tourism sites are purposive selection by the surveying processes and documents studying, and interview both of the agricultural staffs and the local inhabitants. The conditions of selected area are the area sites more than 2 rai, having communicable routes, being the owned land, using the land for agricultural purposes not less than 5 years, and intend to develop to be the Agro-tourism site. The study conclusions and recommendations are divided in 4 categories as followed:

5.1 Conclusions of the assessment

The potential assessment of Agro-tourism in Thawi Watthana District, Bangkok Metropolis was conducted through the in-depth interview and observation of 8 agricultural areas.

5.1.1 The basic data of the 8 agricultural sites assessed the potentiality to be the Agro-tourism sites in Thawi Watthana District.

The first site is the integrated agriculture according to sufficiency economy with 5 rai in area and located near Thawi Watthana District.

The second site is the organic agriculture area with 2 rai in area and located close to Utthayan Road.

The third site is the agriculture area: orchid with 2 rai 2 ngan in area and located close to Utthayan Road.

The forth site is the Agriculture area: orchid with 20 rai in area and located close to Liap Klong Thawi Watthana Road.

The fifth site is the rice paddy area: non mechanized old fashioned with 25 rai in area and located close to Thawi Watthana Road.

The sixth site is the organic vegetative planting area with 8 rai in area and located on Liap Klong Thawi Watthana Road.

The seventh site is the agriculture area: dragon fruits planting with 3 rai in area and located close to Thawi Watthana Road.

The eighth site is the agriculture area: growing of orchid and other flower plants, vegetable, and fruit orchards with 25 rai in area and located close to Thawi Watthana Road.

5.1.2 The purposes of Agro-tourism potential assessment of Agricultural area in Thawi Watthana District, Bangkok Metropolis were to find out the level of their competency and the suitable processes in developing to be Agro-tourism sites.

In the assessment process, researcher used the Agro-tourism potential form by observation and interviewing the owners of 8 agricultural sites. The results show that there are 5 sites with highly potential (63 %) those are the third, the forth, the fifth, the sixth, and the eighth site (mean between 2.53-2.65). Furthermore, there are 3 sites with low potential (37 %) (mean between 1.82-2.44). From the results, the mean score of total area is seemed to be highly potential.

In the focus group discussion, there were 9 persons divided into 2 groups, one was 7 local inhabitants and agriculturalists, and another was 2 government officers. The results show that the major groups were harmonizing in opinion, however, the 2 officers suggested that agriculturalists should concern of the agricultural site potential and community participation more than the need to be Agro-tourism site.

5.2 Discussion

From surveying, the areas are proper in promoting to be Agro-tourism site, because of located in Bangkok Metropolis where are the major tourism attraction, tourists can travel easily by road and boat, and the area is still green. In addition, the area is abundant of agricultural products, according with the study by Orn-ar-nong Rurcharit (2002) showed that the agricultural resources can be the tourism resources. Beside of the readiness of tourism resources which are the major factors in developing tourism, there are many high potential supporting factors those found in this study such as the safety and security of the site, accommodations, transportation route, and parking area. Moreover, there are low to medium potential factors such as waste management, restroom service, tourism activity management, food service, tourist information service, sign and posting, and personnel's knowledge.

In addition, to increase the tourism potential in the area, the linkage to nearby tourism area, the activity services should be improved. Those are according with the study by Patnari Thienkittana (2004) said that the variety of tourism activities will led more tourists coming to the site.

5.3 Suggestions

Researcher has suggestions for 4 groups of people by using the community participation concept as followed:

5.3.1 Agriculturalists

They should correct the low scores indictors, those are the protection of Biodiversity, instruction skill, caring of the sanitization of the area, developing the scenic area and routes, realize that tourism is only the supportive revenue and take time in developing, not depend on government support, set up group to manage and linkage with other area for sustainable development. Furthermore, they should pay

more attention in conservation, environment, waste management, and protect their career to the next generation.

5.3.2 Policy Makers

They should apply the results in policy making process and tourism plan of Thawi Wtana District, pay more attention in green area protection to decrease the changing in utilization of the area, promote and conserve the Agro-tourism site, improve the agriculturalists' potential by training about the tourism knowledge, hospitality, the standardized Homestay management, local guiding and nature communicator, marketing, packaging, product development, promote the tourism activity, and conduct the environmental conservation issue in local school, give more information about the Agro-tourism site to public.

5.3.3 Tourism Business Sectors

They should participate with local people in developing tourism routes which are linked to the major attractions and other Agro-tourism site. Food and beverage sector should bring the agricultural products to be their materials. The other tourism parts should be acknowledged about Agro-tourism site in Thawi Wtana District, so they can give more information to other business part

5.3.4 Tourists

They must travel with meaningful concepts. They must set the plan by participating with local people before traveling, because they will receive the impressive result when traveling in right time and know how to do in Agro-tourism area. Tourists should keep in mind that the valuable tourism will bring sustainable tourism.

5.3.5 Local People

They should have knowledge about tourism site in the area and participate with others in developing tourism activities.

5.4 Recommendations for further study

1. The evaluation form regarding to the tourist's opinion who visit the Agro-tourism areas in Thawi Watthana District should be performed in order to gain different perspectives from tourists.

2. The evaluation on other agricultural areas in Thawi Watthana District should be conducted to increase the numbers and varieties of Agro-tourism areas.

3. The evaluation on other tourist destination in Thawi Watthana District should be accomplished to understand the potentiality of tourist destination.

4. The grid points should be spotted on the map in order to understand the distance between agricultural areas and tourist destinations within the community.

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ที่เหมาะสมเพื่อการพัฒนาทรัพยากร บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.

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ของแหล่งท่องเที่ยวเพื่อชี้วัดความประทับใจของนักท่องเที่ยว กรณีศึกษา : อุทยานแห่งชาติ

เขาลวง จังหวัดนครศรีธรรมราช. มหาวิทยาลัยมหิดล วิทยานิพนธ์ปริญญา

วิทยาศาสตรมหาบัณฑิต สาขาวิชาเทคโนโลยีการวางแผนสิ่งแวดล้อมเพื่อพัฒนาชนบท

บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.

APPENDIX

Section I: The potential assessment of the Agro-Tourism destinations.

Date.....

Part 1 Personal fundamental data

1. Name
2. Sex.....
3. Duration of living in the area and period of agriculture.....
-

Part 2 Data of possibility in developing agro-tourism divided in to 3 components, 8 criterions.

Criterion/Indicator (Index)	Level of assessed scores	Remark
First Component: Value of destination		
1.1 Physical value		
1.1.1 Size of agricultural areas		
- Available agricultural areas for sightseeing < 3 rai	1	
- Available agricultural areas for sightseeing $\geq 3 < 5$ rai	2	
- Available agricultural areas for sightseeing ≥ 5 rai	3	
1.1.2 Maintenance of agricultural areas		
- Inconsistent maintenance	1	
- Average maintenance	2	
- Well-maintained, properly taken care of	3	

Criterion/Indicator (Index)	Level of assessed scores	Remark
1.2 Biological value		
1.2.1 Types or varieties of grains		
<u>Rice Paddy</u>		
- Only rice paddy available for commercial use	1	
- Only rice paddy, vegetable plantation or fruit plantation available for commercial use	2	
- 2 or more purposes for rice paddy, vegetable or fruit plantation available for commercial use	3	
<u>Vegetables</u>		
- 1-3 Types of vegetables	1	
- 3-5 Types of vegetables	2	
- More than 5 types of vegetables or having fruit plantation for commercial use	3	
<u>Fruits</u>		
- No grains variety	1	
- Variety of different grains	2	
- More than 2 or having rare grains	3	
<u>Orchid</u>		
- No grains variety	1	
- Variety of different grains	2	
- Variety of different grains and having rare Grains	3	
1.2.2 The integrity of agricultural areas		
- Less integrated	1	
- Medium integrated	2	
- Highly integrated	3	

Criterion/Indicator (Index)	Level of assessed scores	Remark
Second Component: Basic facilities and transportation		
2.1 Basic facilities		
- Certain pipe water supply, electricity, and phone service available	1	
- Complete pipe water supply, electricity, and phone service, but not convenience in use	2	
- Complete pipe water supply, electricity, and phone service, with full convenience	3	
2.2 Transportation		
2.2.1 The convenience of access to transportation		
- Not convenient to access	1	
- Convenient access with personal vehicles	2	
- Very convenient with public transportation available or having 2 or more accesses	3	
2.2.2 Parking area		
- No parking area available in tourist destinations	1	
- Parking area available close to tourist Destinations	2	
- Parking available in tourist destinations	3	
2.2.3 Signage showing direction to Agro-Tourism destinations		
- No signage available	1	
- Signage available, but not clear	2	
- Clear signage	3	
2.2.4 Linkage/ Proximity to major tourist destinations		
- Distance from major tourist destinations 5 kilometers	1	
- Distance from major tourist destinations $\geq 3 < 5$ kilometers	2	
- Distance from major tourist destinations < 3 kilometers	3	

Criterion/Indicator (Index)	Level of assessed scores	Remark
Third Component: Management, consisting of 4 assessed criterions		
3.1 Tourism activity management		
- No other activities, only sightseeing at agricultural areas	1	
- Having one activity for tourists	2	
- Having 2 or more activities for tourist	3	
3.2 Management of tourism service		
3.2.1 Rest area service available in tourist destination		
- No rest areas	1	
- Rest area available inside the house	2	
- Greeting area provided including tables, chairs and benches	3	
3.2.2 Restroom service available in agricultural areas		
- No restroom service or using restroom in the house	1	
- Restrooms provided outside, but not convenient	2	
- Separated restrooms, convenient, and clean	3	
3.2.3 Food service		
- No food service available	1	
- Food service available provided by home-owners	2	
- Available Restaurants in or near tourist destinations	3	
3.3. Management on knowledge		
3.3.1 Tourist information service		
- No media to provide information	1	
- Media available such as leaflets or information posted on websites	2	
- Information service center available as well as information providers	3	
3.3.2 Personnel knowledgeable in agricultural and tourism activities		
- No knowledgeable personnel available to explain and demonstrate	1	
- Knowledgeable personnel available with demonstration, but unable to relate detailed step-by-step approaches	2	
- Knowledgeable personnel available with ability to demonstrate and explain detailed step-by-step approaches	3	

Criterion/Indicator (Index)	Level of assessed scores	Remark
3.4 Environmental and safety management		
3.4.1 Waste management		
- No management	1	
- Managed by agriculturists themselves	2	
- Sorting and waste separation already performed for garbage collection vehicles	3	
3.4.2 Safety of agricultural areas		
- Low security level	1	
- Medium security level	2	
- High security level	3	

[illegible]

Section : II

Agriculturist s' opinions towards the development of guideline of the Agro-Tourism in Thawi Watthana District

Date.....

1. What do you think about the Agro-Tourism management in Thawi Watthana District?

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.....
.....

2. What are the tourism resources attract tourists to Thawi Watthana agricultural areas in your opinion?

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.....
.....

3. Are you ready or would you like to have Agro-Tourism or not?

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.....

4. What are the obstacles in doing Agro-Tourism in your opinion?

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.....
.....

5. Do you have any suggestions or solutions to the problems?

.....
.....
.....

6. A agriculturists were the evaluators and other agriculturists were not evaluated?

.....
.....
.....

BIOGRAPHY

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