

THE DEVELOPMENT AND PROMOTION GUIDELINES OF ORGANIC FARMING FOR SUSTAINABLE TOURISM: CASES IN THAILAND

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Abstract

This study aimed to survey the interesting organic farms for tourism in five provinces, to study tourists' behaviours and requirements of agro-tourism area, to study the potential and qualification of organic farms on being agro-tourism tourist attractions, and to propose development and promotion guidelines of organic farms for sustainable tourism. Methods of study were field work in target organic farms, interview, focus group discussion and inquiry. The study found that there were varieties of activities which were accordant with tourists' requirements such as brief explanation from farmers, products distribution, fruit tasting, participate in agricultural activities and spend overnight at home stay. The implementation of training on tourism service and management including practicing for being agro-tourism attraction were conducted. The results of this study indicated that there should be economic growth together with conservation of local culture and environment. The most important for sustainable tourism is community participation.

Key words: *Agro-tourism, Organic farming, Sustainable tourism.*

JEL Classification: *Q01, M00, R00.*

1. INTRODUCTION

The main national incomes of Thailand come from agricultural products and tourism. Due to the poverty of the farmers, uncertainty of the income from agricultural products and the 8th and 9th national plans of economic and social development emphasized on the community strength for an adjustment and community participation to the development, the most important national strategy at present is to remove poverty from the people, especially those in the rural areas (Aphirom and et al, 2003 p.1). In addition, there are many interesting local activities and beautiful scenery for tourists in rural areas. Hence, agro-tourism is an alternative tourism which brings additional incomes to farmers and communities. Agro-tourism, closely related to ecotourism, is based on the philosophy of sustainable development which tourists can learn the way of life and the culture of communities through various activities. They are convinced to be concerned with health and environment of the community such as agro-tourism in organic farms. Studies conducted on the effects and side effects upon the health of farm workers reveal that even when pesticides are used properly, they still end up in the air and bodies of farm workers. Through these studies, organophosphate pesticides have become associated with acute health problems such as abdominal pain, dizziness, headaches, nausea, vomiting, as well as skin and eye problems. In addition, many other studies have found that pesticide exposure is associated with more severe health problems such as respiratory problems, memory disorders, dermatologic conditions, cancer, depression, neurological deficits, miscarriages, and birth defects (en.wikipedia.org/wiki/Organicfood,

2009). Moreover, pesticide use and drift can affect air quality; pesticides in the food chain can threaten wildlife populations; and soil may no longer be suitable for optimal crop production. Over one third of the food in the market has pesticide residue, and pesticides are commonly found in rural wells. Organic farming is now looked at as alternative farming, too.

Chiangmai, Phuket, Ubonratchathani, Phranokornsiayutthaya and Chonburi are the provinces representative provinces from the north, the south, the northeast, the central and the east regions of Thailand, respectively. There are more than one thousand tourists in these provinces in 2004. From the problems mentioned about the farmers' poverty, the problems due to pesticide used which may be solved by developing organic farms to be agro-tourism areas so that the farmers would be able to earn more income with better living. Moreover, it could be long lasting sustainable development of the community. Hence, the researcher was interested in studying how to develop organic farms or organic plantations to be sustainable agro-tourism with the participation of the people in the community.

There were four objectives of this study:

- To survey the interesting organic farms for tourism in five provinces;
- To study tourists' behaviours and requirements of agro-tourism area;
- To study the potential and qualification of organic farms on being agro-tourism tourist attractions;
- To propose development and promotion guidelines of organic farms for sustainable tourism.

2. AGRO-TOURISM, SUSTAINABLE TOURISM AND ORGANIC FARMING

Agro-tourism is an alternative tourism which tourists can visit farms and participate in various activities provided by the people in the community. It can derive fair income including environmental and cultural heritage preservation (Nartsuda, 2009 p.39).

Agro-tourism has two dimensions; one can be classified as a forward linkage, meaning that the agricultural sector is a part of the destination's tourism appeal. In this context, it is of special interest to visitors and forms part of their itinerary. The other dimension involves a backward linkage where by the agricultural sector provides the raw material for food and beverage required by the hospitality industry. Certainly, before there can be any forward linkages we must develop the back ward ones (Carla, 2000, p.51). On the other hand, it is indicated that agro-tourism is an alternative activity in the rural development process. The concept of agro-tourism is a direct expansion of ecotourism, which encourages visitors to experience agricultural life at first hand. Agro-tourism is gathering strong support from small communities as rural people have realized the benefits of sustainable development brought about by similar forms of nature travel (www.ecotourdirectory.com/agrotourism.htm, 2006).

The definitions of agro-tourism, eco tourism and sustainable tourism can be clarified as follows: Agro tourism is a farm based tourism, helping to support the local agricultural economy while ecotourism refers to a segment within the tourism sector. It fosters respect towards the environment, reflects sustainable business practices, creates socio-economic benefits for communities/regions, and recognizes and respects local and indigenous cultures, traditions and values. Sustainable tourism is envisaged as leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems (www.eceat-projects.org/html/definitions.html, 2009).

Sustainable tourism is an industry committed to making a low impact on the environment and local culture, while helping to generate income and employment for local people. The aim of sustainable tourism is to ensure that development is a positive experience for local people; tourism companies; and tourists themselves. (http://en.wikipedia.org/wiki/Sustainable_tourism, 2009) It can be concluded that sustainable tourism is a tourism that is:

- Long-lasting (economically viable in the long-term, planned and well managed, which implies avoidance of mass tourism and a low impact);
- Environment friendly (adapted to the carrying capacity of the natural and cultural spaces, minimizing seasonal effects);

- Diversified (in relation to the hinterland adapted to the site's personality, based on local enterprises and avoiding total dedication to tourism);
- Participatory (with the participation of the local towns and villages).

(http://www.didal.com/clients/medforum/ulixes21/in/roj_ts_in.htm, 2010)

Organic farming is a form of agriculture that relies on crop rotation, green manure, compost, biological pest control, and mechanical cultivation to maintain soil productivity and control pests, excluding or strictly limiting the use of synthetic fertilizers and synthetic pesticides, plant growth regulators, livestock feed additives, and genetically modified organisms. Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved (http://en.wikipedia.org/wiki/Organic_farming, 2009).

Over one third of the food in the market has pesticide residue, and pesticides are commonly found in rural wells. Organic farming is now looked at as alternative farming. International Federation of Organic Agriculture Movements (IFOAM), an international umbrella organization for organic organizations, established in 1972. The overarching goal of organic farming is defined as follows: "Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved" (www.ifoam.org/growing_organic/definitions/doa/ind_ex.html, 2008). Organic farming is labour and knowledge-intensive whereas conventional farming is capital-intensive, requiring more energy and manufactured inputs (Strochlic, Sierra, 2007).

There are various activities provided in agro-tourism. In Thailand, agro-tourism activities can be classified into six groups as follows (TISTR, pp.13-15):

- Products display or demonstration such as paddy seeds plot, agricultural steps of growing rice, and agricultural cultures in the past;
- Agricultural activities by tourists' participations such as field ploughing, rice harvest, fruits gathering;
- Home stay. That is tourists' stay at night in farmers' houses for learning agricultural way of life;

- Agricultural knowledge training. This training aims to provide agricultural knowledge both of modern agricultural knowledge and local wisdom of villagers such as fruit preservation, making fruit and vegetable juice.
- Agricultural products distribution such as flowers, fresh fruits, handicrafts and preserved eggs;
- Agricultural business offering. Some tourists are businessmen who search for investing in new agricultural projects. Therefore, they might join in agricultural business with farmers such as processing agricultural products.

Agro-tourism is an alternative tourism which can help farmers to earn more incomes. In addition, it will be very beneficial if such agricultural areas are free from pesticides. It will be sustainable if it has strong support from the people in the community together with preservation of environment and culture.

3. RESEARCH METHODOLOGY

This study was research and development which utilized qualitative and quantitative research methodology. It was included as follows:

3.1. Participants

The participants in this study were as followed:

- a. Farmer leaders:
 - Three farmer leaders in Thalang District, Phuket Province;
 - Two farmer leaders in Prao District, Chiangmai Province;
 - Two farmer leaders in Nayea District, Ubonratchathani Province;
 - One farmer leader in Ladbualuang District, Phranokornsiayutthaya Province;
 - Two farmer leaders in Pantong District, Chonburi Province.
- b. Groups of farmers and farmer's housewives in Thalang District, Prao District, Nayea District, Ladbualuang District and Pantong District;
- c. Four hundred Thai tourists.

3.2. Instruments

The instrument utilized in this study was a set of five - level Likert scale questionnaire, semi-structured interviews and focus-group discussion. The semi-structured interview was designed to elicit the ideas of the potential and qualification of farms on being agro-tourism tourist attractions. The questionnaire aimed at obtaining tourists' opinions about their interests, behaviours and requirements in

agro-tourism. It consisted of two parts, the first part was personal information and the second, consisting of 19 items asked for their opinions. A five-level Likert scale ranging from strongly agreed, agreed, were uncertain, disagreed and strongly disagreed were provided as answers.

3.3. Data Collection

The data collection was done in March 2008-September 2009. The following steps were carried out in collecting the data.

- Organic farms in the five provinces were randomly selected from the agricultural information of Agricultural Extension Department, Ministry of Agriculture and Cooperative;
- The selected farms were explored for their potential and qualification such as the readiness of attractions, basic facilities, environment, community participation and accessibility, etc.;
- During the exploration, the researcher interviewed the participants who were farmer leaders, owners of organic farms and farmer's housewives in each district;
- Thai tourists who had been visited these five provinces were asked to indicate their opinions about their interests, behaviors and requirements in agro-tourism through the questionnaires;
- Developing a guideline by doing focus group discussion of district officers, local people, specialists in tourism and a researcher. A farm in each district was selected to be implemented an experiment as stated in the guideline;
- Pre-organized tourism in the village and trained how to conduct a small business tourism with sustainability;
- Followed up the developed agro-tourism areas.

3.4. Data analysis

For the first objective, the qualitative data were explained descriptively. Regarding the second research objective, the quantitative data were analysed by the computer program to determine percentage, mean and standard deviation.

As for qualitative data the analysis was carried out to answer the third research objective. So, the qualitative data were grouped under these headings:

- Physical information of farms such as location, accessibility, environment, basic facilities etc.;
- Tourism information such as attraction spots, agricultural way of life, etc.;
- Community participation;

- Readiness on being agro-tourism tourist attractions,
- Problems and limited factors on being agro-tourism tourist attractions.

Concerning the fourth objective, focus group was conducted for discussion among district officers, local people, specialists in tourism and a researcher.

4. RESULT FINDINGS

4.1. The interesting organic farms for tourism were explored

There were not many organic farms in the five provinces which were successful. They were five organic farms in Chiangmai, two organic farms in Phuket, two organic farms in Ubonratchathani, two organic farms in Phranakornsiayutthaya and two organic farms in Chonburi. The farmers indicated not many organic farms are still cultivated. It was because there was less support from the government sectors. Even if there were no chemical fertilizers and pesticides using in organic farms, the farmers could harvest less products than conventional farms. Sometimes they had to wait for many crop cycles to increase productivity and earn more money. Moreover, the insects escaped from pesticides to the organic farms which were located among conventional farms and damaged the crops.

4.2. Tourists' behaviors and requirements of agro-tourism area were inquired

The participants of this study were Thai tourists who had been to Chiangmai, Phuket, Ubonratchathani, Phranakornsiayutthaya and Chonburi. The characteristics of these tourists were presented as follows:

a. The participants were males and females almost equally within the age of 31-40 years. Most of them were married, the highest educational attainments were bachelor's degree and they were employees with the income of 20,000- 30,000 Baht (600-900 US Dollars).

b. According to the participants' opinions on agro-tourism, the results of the tourists' opinion on agro-tourism showed their positive interest in agro-tourism (mean = 3.78). And they also agreed at the high level that there were many interesting places of agro-tourism tourist attractions in Chiangmai, Phuket, Ubonratchathani, Phranakornsiayutthaya and Chonburi (mean = 4.02). Moreover, they agreed at the high level in the following items: they could visit these five provinces safely and there were clear direction signs (mean = 3.88 and 3.97, respectively); they preferred to travel there because there were many interesting tourist attractions and they could visit nearby provinces (mean = 4.16 and 3.91, respectively); there were enough lavatories, good

public facilities, good quality of food with reasonable price and enough food shop (mean = 4.26, 4.10, 3.97 and 3.80, respectively). They were interested in visiting farms which provided the activities of agricultural products preservation, activities in rice fields, fruit orchards, economic crop farms, gardening, mushroom farms and basketry, respectively (mean = 4.06, 3.89, 3.88, 3.83, 3.78, 3.64 and 3.60, respectively).

During their visiting, they wanted to have a chance in listening to farmers' explanation (mean = 4.18), participating in agricultural activities such as buying agricultural products, eating agricultural products, fruit picking and spending overnight at home stay, respectively (mean = 4.06, 4.04, 4.01 and 3.95, respectively). Their expectations in visiting were the convenience of traveling, the scenic beauty, clean environment, friendship and good services, and good quality with reasonable price of the products in the farms, respectively (mean = 4.39, 4.27, 4.24, 4.18 and 4.16, respectively). They also agreed mostly at the high level in traveling personally and by cars (mean = 4.36 and 3.84, respectively). Moreover, they agreed that the best media for tourism public relations was television (mean = 4.19).

4.3. The potential and qualification of organic farms on being agro-tourism tourist attractions were concluded

It could be concluded that among five organic farms in Chiangmai, two organic farms in Phuket, two organic farms in Ubonratchathani, two organic farms in Phranakornsiayutthaya and two organic farms in Chonburi, only five organic farms were qualified to be agro-tourism tourist attractions. They were organic farms in Prao District, Thalang District, Nayea District, Ladbualluang District and Pantong District, respectively. Owing to their unique physical and biological values and agricultural way of life such as organic orchards of longan, organic vegetables plantations, organic cutting flowers, etc. In additions, it was found that there were accessibility, safety and a high degree in the readiness of tourist services. An important factor for achievement was the support from government officers in sub-districts and community participation.

The qualitative data were grouped and described as follows:

a. *Physical information of farms:*

- Villages in Prao district were located in a beautiful scenery and it was easily accessible;
- The organic farm in Thalang district was a heliconia plantation which also planted various kinds of beautiful cutting flowers. It was also a learning center of sufficiency agriculture;

- The organic farm in Naya district was a diversified organic farming. It looked like organic forestry;
- The organic farm in Ladbualuang district was an organic rice field surrounded by green vegetables and fruit orchards;
- The organic farm in Pantong district was an organic mixed farming which planted crops by using new theory of His Majesty King Bhumibol Adulyadej and King's Philosophy of self sufficiency economy;

These five farms were easily accessible for the tourists since they were near main roads.

b. **Tourism information:** there were many tourist attractions in these five districts.

c. **Community participation:** there was very strong community participation in Prao and strong community participation in Thalang, Naya, Ladbualuang and Pantong district.

d. **Readiness on being agro-tourism tourist attractions:** the villages in Prao were ready and willing to be agro-tourism area especially home stay while villages in Thalang were ready to be a tourism attraction for tourists to visit. Villages in Naya were also ready to be agro-tourism area and a learning center for tourists and people in the community, the same as villages in Pantong. Villages in Ladbualuang were ready to be agro-tourism area, too. Among these five districts, the government officers of sub-district in Prao always supported all activities of the people in their villages and really wanted to develop them to be tourist attraction.

e. **Problems and limited factors on being agro-tourism tourist attractions:** Prao, Naya were far from the central of the city and the villages were far from the main street, the people in the villages from five districts lacked of knowledge about tourism management.

Concerning development and promotion guidelines of organic farming for sustainable tourism, the results of the first, the second and the third objectives, were determined by focus group discussions of sub-district officers, local people, specialists in tourism and a researcher.

The guidelines were developed as follows:

- Survey and analysis, of farm potential factors;
- Training of farmers or organic farm's owners, farmers' housewives and people in the community about tourism services and management and how to preserve and manage heritage and natural resources. Training them about financial management in order to distribute equity and fare profits;
- Experiment of agro-tourism tourists attraction by selecting the most readiness place to be a sample and implement a role playing for at least ten tourists;

- Propose agro-tourism project in the community to the government for supporting budget and other support such as the improvement of infrastructure;
- Expose for public relations on the website or television;
- Follow up and evaluate tourism management to improve for sustainable agro-tourism.

According to the guidelines the researcher conducted activities as follows:

1. *Selected a farm from potential factors indicated in the above results.*

The villages in Prao where the farmers own Organic farms grew green bean, longan, and vegetables were selected. There was a strong cooperation among groups of farmers' housewives.

There were many interesting places to visit in the villages and the villages nearby such as waterfalls, a big pond with fresh and clear water, beautiful temples with interesting cave. Moreover, there was a hill tribe village near this community.

In Thalang, the learning center of sufficiency agriculture in Thalang was selected. The community involved in growing organic farms with different plants and products such as papaya, anthurium orchards, organic fertilizer production, etc. There were many interesting places near the community such as historic monuments and many beautiful beaches.

A diversified organic farming in Naya was selected. Its owner was respected as a farmer leader. The farmers in the community grew rice and local vegetable. There were many kinds of rare plants and economic plants in this organic farm such as rattens, oil palms, etc.

An organic rice field in Ladbualuang was selected. There were many historic attractions near this area. The people in the community got strongly involved in the activities conducted by the farmer leader who was the owner of the rice field and fruit orchards.

An organic mixed farming in Pantong was selected. The owner planted many kinds of plants by the way of new theory of His Majesty King Bhumibol Adulyadej and King's Philosophy of self sufficiency economy. It meant that the whole area was divided into four portions which were 30 % for rice, 30% for fruit trees, 30% for big pond for irrigation and fishing, and 10% for house and raise animals such as chicken under the house for laying eggs.

2. *Training on tourism services and management and how to improve and manage heritage and natural resources was implemented.*

Since the result of the study showed that the communities lacked of knowledge on tourism services and management, members of the community were provided a one day training by the researcher in each

district. Experts in tourism from Chandrakasem Rajabhat University were invited to be their trainer. The training focused on how to welcome the tourists, preparation for tourists and the community plan for tourism in the aspects of farm planning, house planning and financial management. The local people were invited to brief about the detail and history of the district and discussed about how to improve and manage heritage and natural resources.

3. Conducted role playing activities by inviting ten to twelve tourists in each district.

The tourists had a chance to participate in farm activities such as to grind and clean rice seed, to cut flowers, to harvest rice, etc. Moreover, two tourists had a chance to spend overnight in one farmer's house in Prao as a home stay. The recommendations of role playing activity indicated by the tourists were:

- The owners should tell about the background of the community;
- The members of organic farms should be trained so that they have an ability to explain steps of the organic farm activities clearly during their demonstration;
- The farmers and farmer's housewives should be able to calculate the cost of the home stay and know how to manage profitably. Moreover, they should know how to organize activities for tourists during their visits;
- The farmers or the owners of the farms and the people in the communities who got involved in agro-tourism should be aware that the income from agro-tourism was not the main income of farms but it was only added income.

4.4. Propose development and promotion guidelines of organic farming for sustainable tourism

After implementation; district officers, local people, specialists in tourism and a researcher joined the focus group discussion together and agreed that development and promotion guidelines of organic farming for sustainable tourism should be as follows:

- Survey and analysis, of farm potential factors;
- Training of farmers or organic farm's owners, farmers' housewives and people in the community about tourism services and management and how to preserve and manage heritage and natural resources;

Training them about financial management in order to distribute equity and fare profits. In additions, training them for what they lack of from the survey and analysis.

- Experiment of agro-tourism tourist attraction by selecting the most readiness place to be a sample and implement a role playing for at least ten tourists;
- Propose agro-tourism project in the community to the government for supporting budget and other supports such as an improvement of infrastructure;

It is necessary to have a strong coordination of all concerned groups such as the chief of the district and community leaders or key persons in the community.

- Do a master plan for general tourism management by all concerned groups cooperating and community participation;
- Expose for public relations on television or good public relations for marketing;
- Follow up and evaluate tourism management to improve for sustainable agro-tourism.

Develop networks of agro-tourism resources which consisted at least of one coordinator and groups of members nearby the communities. There should be economic growth together with conservation of local culture and environment. The most important for sustainable tourism is community participation.

4.5. Recommendations

From focus group discussion among district officers, local people, specialists in tourism and a researcher, they also agreed that governmental and non governmental departments in the local areas should provide contribution as follows:

- Educate and campaign for preventing chemical pesticide used and utilization of organic substance;
- Provide training on the administrative management of agro-tourism resources, financial management, local tourist guide with community participation and subsidizing on business running;
- Provide public relations for promoting developed agro-tourism attractions;
- Provide some transportation and communication facilities and surroundings improvement;
- Provide advisors or consultants in planting organic farms, tourism management planning, marketing and product improvement;
- Encourage to either develop new networks or expand the former networks of agro-tourism.

5. CONCLUSION

From the guidelines proposed in this study, the farmers could be trained to be the owners of agro-tourism tourist attractions in the types of home stay and farm visit and could earn more income from these activities which lead to be small business tourism in the community. At the same time, they would be able to sell their agricultural products to the tourists so they would be self reliance and could stay in their place without transferring to find job in the city. The most important factors which helped to be sustainable agro-tourism were community participation, supporting from government sectors in the community, fare

distribution of the profits to the people who got involved with, and preservation of culture, heritage and environment.

For the problems and limited factors on being sustainable agro-tourism tourist attractions, it was found that the farmers encountered the lack of knowledge in tourism. This result confirmed the fact that education concerns everyone and it is a lifelong process for all people. Therefore, training programs on tourism management and service, how to improve and manage heritage and natural resources should be offered.

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