
Impact of agro-tourism on local agricultural occupation: A case study of Chang Klang district, southern Thailand

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Agro-tourism has been a priority as a means of improving the livelihood of agriculturist developing countries. The purpose of this paper is to present the feature of agro-tourism activities and its impact on local agricultural occupation. A study of Chang Klang district, a well recognized agro-tourism destination in southern Thailand with farm lands promoted as agro-tourism destinations, operate a wide range of tourism activities such as demonstration of product processing, agricultural study, product distribution, and agri-business guidance. Over the past ten years of such activities have resulted in the local agricultural occupation improvement with an increase in agricultural resource conservation, diversification of farming, and value adding to agricultural resources. However, as a result of the boom of agro-tourism, there is the promotion of tourism business that is more profitable than agricultural occupation.

Key words: agro-tourism, agricultural resources, agricultural occupation

Introduction

It is well known that Thailand is an agricultural country. The agricultural sector has played an important role in contributing to the economy of Thailand throughout history. However, as the nonagricultural sector has been growing at a rapid rate during the past few decades, agriculture has gradually declined in its importance in terms of its share in economic growth (Thuvachote, 2007).

Furthermore, agricultural production is facing the fluctuation of prices and the climate change. Then, a solution for the local farmers to cope with such problems is the application modern agricultural technologies, using both machines and chemicals that can enhance their incomes. However, these have been resulting in the decline of agricultural resources. In an attempt to compromise both activities, therefore, the combination of agricultural activities and tourism services which termed as agro-tourism is an important approach to rural development (Tanupol *et al.*, 200). Agro-tourism is a part of tourism

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activities .It allows visitors to gain the knowledge of agriculture and appreciate the unique rural landscapes) Hall and Jenkins, .(1998Sometimes it can be enjoyed as rural tourism or farm tourism)Fleischer and Tchetchik, .(2006 In view of agricultural occupation development, if a farm receives more guests, it needs more agricultural products that could be used as food (Sznajder, *et al.*, 2009).

In Thailand, agro-tourism is promoted officially throughout Thailand in 1995. Presently, existing agro-tourism activities within communities are categorized as a wide range of features; short-term activity participation)such as farm visiting with participatory harvesting(, overnight in the village to experience villagers' living, agricultural study both modern and traditional agriculture)such as the study of beneficial insects and local edible vegetables(, distribution of agricultural products)such as fresh flowers and seeds(, and agri-business (Bureau of Farmer Development, 2005 .(Additionally, Department of Agricultural Extension has been promoting agro-tourism activities throughout Thailand in the form of farmers' farm visitation with successful operation, and seasonal traveling to festivals)such as world durian and sunflower bloom festival) (DAE, 2005) .

However, Sznajder, *et al.*, (2009) claim that relationships between the agricultural occupation and agro-tourism activities may be competitive that may concern the use of agricultural resources of the farm, i.e. land, work, and capital. For example, a farmer growing commodity crops intends to develop agro-tourism activity. For this purpose he has to exclude part of the area of land from agricultural production and use it for agro-tourism. Besides, Halfacree ((1993suggests that eventhough agro-tourism is associated closely with rural environment, but in term of business model, tourist farms provide agricultural resources as accommodations and other facilities as other types of tourism business. In view of the impact of agro-tourism on agricultural production, Brscic)2006(concludes that the development of agro-tourism activities have not significant influent on the increase of agricultural production within agro-tourism households. Increasing number of certain agricultural producers can not be directly related with the development of agro-tourism.

Currently, more than 400 agricultural villages throughout regions of Thailand have promoted officially as agro-tourism destinations, and a number of potential communities are being developed as such tourism (Bureau of Farmers Development, 2005(. However, in Thailand, agro-tourism is a relatively new activity for local farmers. This can have impact on the structure of community's agricultural occupation, but such impact has not yet been studied. Practically, eventhough many agricultural communities have been promoted as agro-tourism destination for years, such development lack a

scientific explanation on the link between agro-tourism and local agricultural occupation specifically an aspect of agricultural resource uses.)Bureau of Farmers Development, 2005(. The review of relevant literature found that all of the existing researches on agro-tourism in Thailand studied intensively on established agro-tourism , such as “The action model and agro–tourism route of Chaiya salted egg production group, Chaiya District, Suratthani Province” (Boonlum *et al.*,(2004 ; “Development of agro-tourism potential with participate on communities in the province of Saraburi, Sing Buri and Chai Nat” (Chamnasiri *et al.*,(2006 ; “Communities’ potential of agro-tourism promote on sustainable development: a case study of Tin House Hotel, Ao Nang, Muang District, Krabi Province” (Kong-in, (2002; “Management of interpretation and facilities of agro-tourism’s operators, a case study of Samut Sakhon province” (Peimnivat, 2001); and “Potential of Sampathuan District as agro-tourism site” (Leacharit, (2002.

Chang klang district of Nakhon Si Thammarat province in southern Thailand is a well known agro-tourism destination operated by local farmer groups. Originally, Chang Klang district occupies rich natural resources diversity that offers a wide rang of agricultural occupation, the mountainous landscapes with various plantations, and the lowland with the paddy, husbandry, orchard, and vegetable. Most of residents are farmers whose farms can generate a wide rang of agricultural products. Later, in 1997, due to the economic crisis and the famous of its agriculture, agro-tourism was promoted to improve local residents’ livelihood.

However, presently, among many supports from related organizations and the boom of community-based tourism, the structure of agricultural occupation in this community has been changing compared to in the past. Therefore for years of agro-tourism promotion in this district, it should be examined the impact of agro-tourism activities on local agricultural occupation with an aim to suggest the local agricultural occupation improvement.

Literature revie

Sznajder *et al.* (2009) describe a difference of agricultural resource use between agricultural occupation and agro-tourism that agricultural occupation maximizes agricultural use of land, whereas agro-tourism excludes a partial of agricultural use of land for agro-tourism purposes (such as buildings, car parks, etc.). About the production, agricultural occupation engages only in agricultural, breeding and possibly processing activities, specialization of production, increasing the scale of production, whereas agro-tourism take agricultural and tourism in various proportions, subordination of the structure of agricultural activities to agro-tourism. About the use of inputs, agricultural

occupation uses modern technologies, especially fertilizers and pesticides, in order to maximize the profit from agricultural production, whereas agro-tourism emphasizes on extensive production and environmental protection and moderate use of fertilizers and pesticides.

As mentioned above, it can be implied both negative and positive impacts of agro-tourism on local agricultural occupation. In term of positive aspect, Ceballos (1996) claim that agro-tourism through green agriculture is a main expectation of agro-tourism promotion. When local agricultural occupation depends on some of inputs from the outsides (such as fertilizers, pesticides, etc.) needs to generate incomes from agro-tourism, farmers tend to reduce agricultural inputs from outside by means of organic farming or natural farming development as tourists attractions. In contrast, in case of traditional farming relying on agricultural inputs within community needs to generate incomes from agro-tourism, farmers tend to reduce the use of agricultural inputs within community especially the rich of local natural resources. From this sense environmental and natural resources are maintained for farmer's incomes, and the rich of natural resources will serve as tourism resources instead of using for agriculture.

However, in terms of tourism business model, it is a negative impact that most of agricultural resources are used for tourism. A study of Brscic (2006) (entitled "the impact of agro-tourism on agricultural production" points that the development of agro-tourism activities is not an increasing factor of agricultural productivity.

Other impact of agro-tourism on agricultural occupation, Fleischer and Tchetchik (2006) ask that relationships between rural amenities of tourism development and agriculture are of mutual benefit, in the sense that while agro-tourism provides the farmer with auxiliary funding to continue his/her activity, the latter is an important component of agro-tourism? And do tourists farms enjoy economies to scope and run their businesses more efficiently than farms with only a single activity? They found that on the production side, farmers seem to benefit from the existence of an active farm. A farm producing agricultural goods and tourism services appears to use its production factors in producing tourism firms managed by non-farmers.

Busby and Rendle (2000) clam that the link between agro-tourism and agriculture is getting weaker. In this view, farms who engage in tourism on their farm as an alternative source of income to agriculture slowly divorce themselves from agricultural activities.

In term of how agro-tourism activities as the resulting factors on decision making on farming. This can be explained that farm management is generally related to the conditions of stability of production and value of agricultural

resources) Atipnan, .(1999 For this reason, it is possible that agro-tourism activities as a such condition. Besides, agricultural decisions making of farmers depend on the purposes of farming, the types of production, and the main activities of farming) Thungwa, 1998.(In this concept, in condition of farms are developed as agro-tourism sites, the objectives of farming, types of production, and main activities of farming may change.

Research method

Agro-tourism in Chang Klang district was chosen owing to its well known agro-tourism destination in southern Thailand. This area was examined the impacts of agro-tourism on local agricultural occupation due to: its implementation of agro-tourism activities at least 10 years, gaining the Thai Tourism Industry Award in 2002, expanding a number of tourism activities and tourists, conducted by villagers.

To investigate the impacts on local agricultural occupation, agricultural management on agro-tourism farms was analyzed how it relate to local agricultural occupation. During this study, existing seven agro-tourism farms were studied. Table 1 shows the existing agro-tourism farms in Chang Klang district.

Table 1. Existing agro-tourism farms in Chang Klang district

Names of existing agro-tourism farms	Agricultural occupation
.1 Mushroom lover group	Mushroom cultivation
.2 Group of occupational promotion and centre of Mushroom cultivation training	Mushroom cultivation
.3 Efficiency economic and organic farming lime tree planting,	Bio-fertilizer generating, agricultural products processing, and mixed farm
.4 Apis cerana apiculture of Klongpeeknue group	Apiculture
.5 Apis cerana apiculture of Mr. Rai Pomchart	Apiculture
.6 Apiculture of Baanlumnaihin group	Apiculture
7. Apis cerana apiculture centre	Apiculture

Data were collected from key informants and stakeholders who are involved in agro-tourism activities and agricultural occupations. The questionnaire survey was designed to collect the features of agro-tourism activities and agricultural resource usage. The semi-structured interview was performed to interview key informants. This in-depth interview aimed to describe the impacts of agro-tourism activities on local agricultural occupation. The key informants are leaders of agro-tourism farms, local government

officials, agricultural officials in Chang Klang district, and public sectors who initiated agro-tourism promotion.

Analyzing data, agricultural resource use on agro-tourism activities and the outcomes of agricultural structure changes are analyzed to identify the impact of agro-tourism activities on local agricultural occupation.

Results

Features of agro-tourism activities

The background of local farms especially agricultural products and resources use was a basis of the features of agro-tourism activities. Farms which promoted as agro-tourisms activities were agricultural occupation of mushroom cultivation, apiculture, and organic farming. These farms operated tourist activities with a variety of features: processing demonstration, agricultural study, local product distribution, and agri-business guidance. Features of agro-tourism activities of each agricultural occupation are briefed as Figure 1.

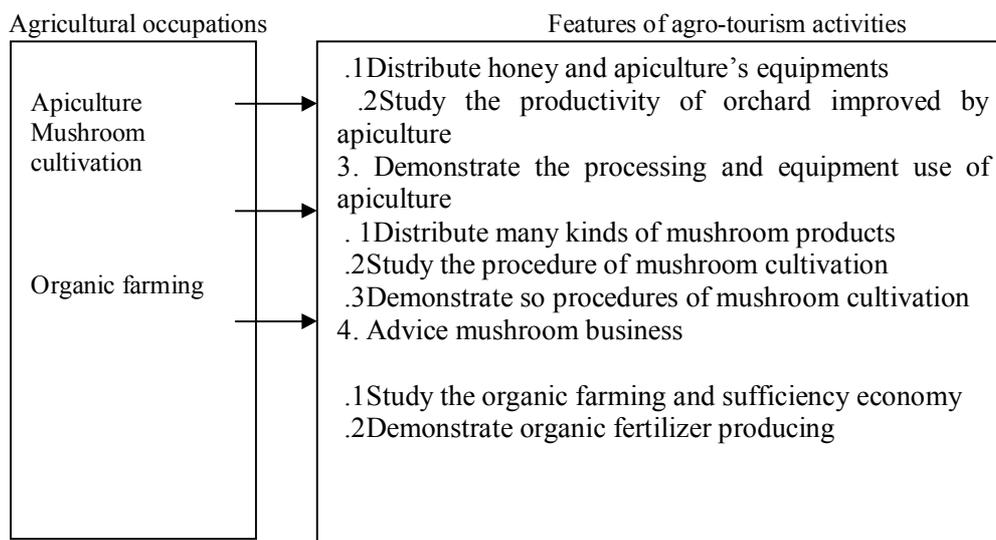


Fig. 1. Feature of agro-tourism activities within the farms

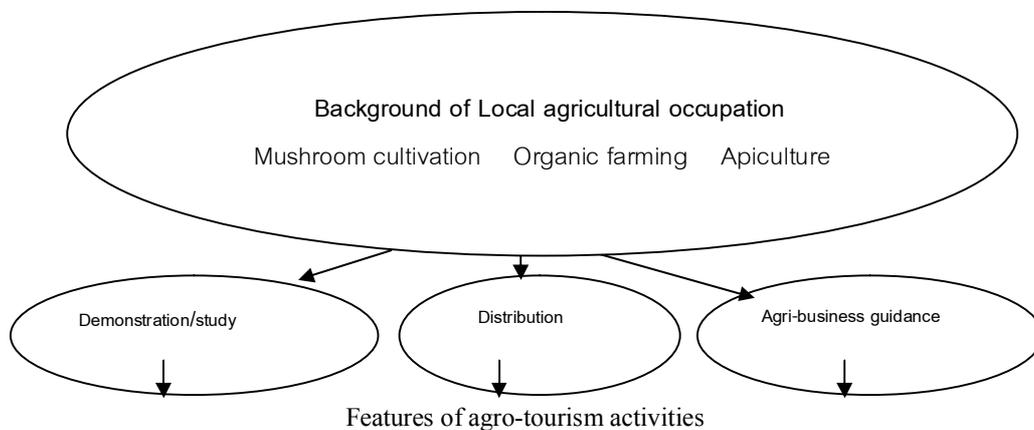
From Figure 1, all tourist farms operated various agro-tourism activities. These activities offer on the farm were sequenced to make income from visitors. As this sense, agro-tourism activities program offering visitors started with knowledge of farming. The next activity was agricultural process demonstration, and last activity was agricultural production distribution and

agri-business guidance. However, each agro-tourism activity was operated in difference depend on type of agricultural production. As this condition, apicultural farm focused on activity of demonstration because the method of apiculture was very complex and interesting. Unlike the farm of mushroom cultivation, it mainly shown a divers of mushroom production, distributed production, and advised mushroom business because this production was easy to produce by visitors themselves. Whereas the organic farm concentrated on activity of organic planting study because of the boom of green agriculture. As this finding, it is important to mention that there was a link between activity of agro-tourism and type of agricultural production within tourist farm.

Impacts of agro-tourism on local agricultural occupation

The agricultural resources use in agro-tourism activities and the outcomes of agricultural structure changes were analyzed to identify the impact of agro-tourism on local agricultural occupation.

In term of agricultural resources use in agro-tourism activities, it was found that agricultural residents, agricultural products, and agricultural knowledge were used mainly on agro-tourism activities. Agro-tourism farms used such agricultural resource in difference. The features of agro-tourism activities and their agricultural resources use are presented as Figure 2.



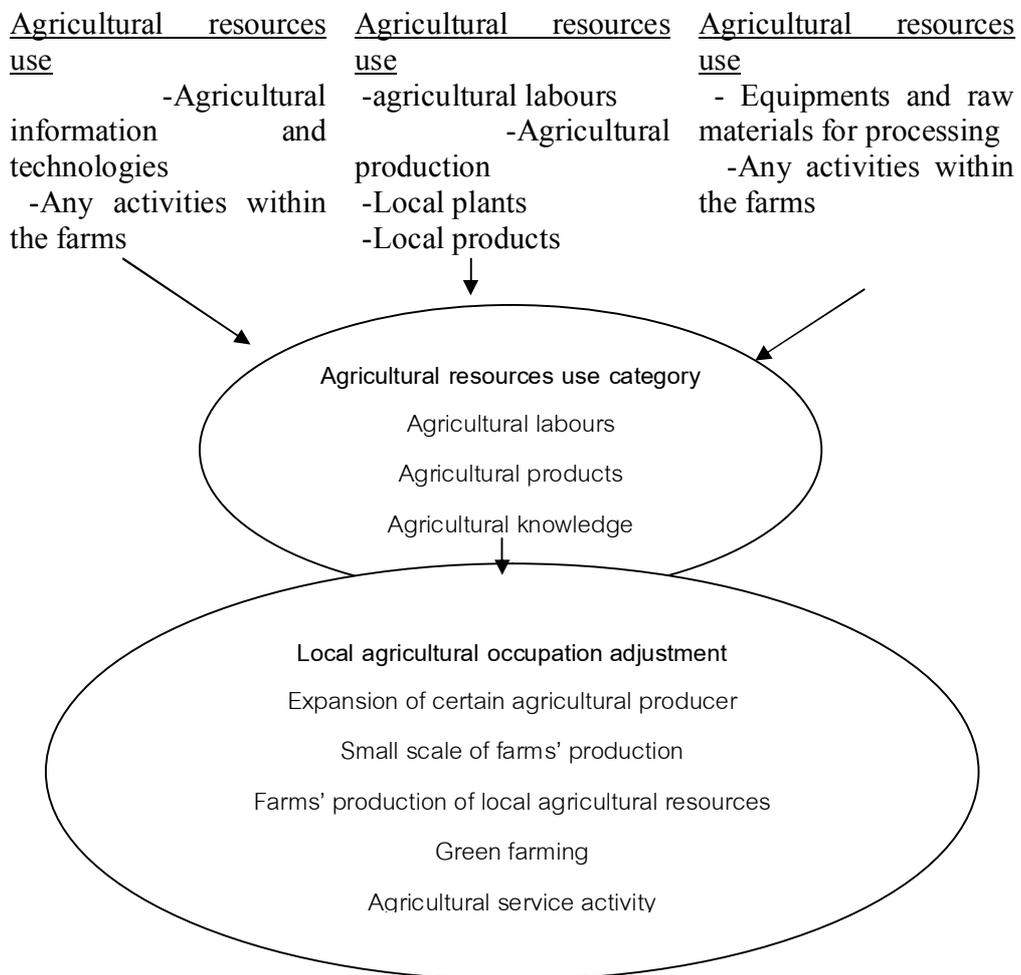


Fig. 2. Impacts of agro-tourism on local agricultural occupation

From Figure 2, the feature of agro-tourism activities within the farms and the use of agricultural resources on agro-tourism activities were the changing factors of agricultural occupation structure. This research considered the changes of local agricultural occupation during the past 10 years of agro-tourism promotion. This study found that the change can be defined into three characteristics: conservation of agricultural resources, expansion of agricultural career, and value adding of agricultural resources. The obvious changes of agricultural occupation and the role of agro-tourism activities on them are shown as the following.

In term of agricultural resource conservation, activities of agricultural study especially mixed farming or diversity farming has encouraged more than 20 farms within Chang Klang district has switched from their monoculture farms (such as durian, mangosteen, and rambutan) to mixed farms. Besides, after the past five years of activities of organic farming study, it was found that a number of chemical fertilizers use in Chang Klang district was decreased significantly compared to in the past. According to the boom of such agricultural resource conservation, residents in Chang Klang district continued their agricultural activity but most of them tried to operate as small scale (less than 1 ha) in the sense that green agricultural products were used for them where as the main incomes were generated from tourism activities and rubber plantation.

In term of agricultural activities expansion, activities of agri-business guidance of mushroom cultivation has encouraged the new farms of such business due to its low investment, less operating areas, and enough local materials. During this study, about 90 farmers in Chang Klang district have operated this business as a part of their farms.

Besides, activities of organic farming study have encouraged more than 70 local farmers to conduct organic farming in order to reduce farming cost. Furthermore, activities of apiculture study have motivated many orchards to obtain apiculture. During this study, at least 10 orchards in Chang Klang district have operated apiculture. According to such expansion, mushroom cultivation and apiculture were a basic of agricultural activity of most farms. At this sense, agricultural occupation seemed to similar in production. These productions from both agro-tourism farms non-tourism farms shared some of such productions to visitors.

Finally, in term of value adding of agricultural resources, activities of local products distribution has resulted in the value adding of a certain agricultural resources such as traditional rice farming, and local plants were modified as a wide rang of local products. According to value adding of agricultural resources, agricultural occupation activity within this agro-tourism district seemed to use various local agricultural resources. It was an evident describing how agricultural occupation of households seemed to be small scale. In short, in view of local agricultural occupation structure change, a wide rang of agricultural service agencies within Chank Klang district were increase especially agricultural extension centre for inspection activity. Additionally, agricultural service occupation was included with accommodations and local production within agro-tourism farms. These activities generated a new source of agricultural income.

Discussion

Agro-tourism and local agricultural occupation improvement

As the finding from this study, local agricultural occupation was improved in term of conservation of agricultural resources, expansion of agricultural career, and value adding agricultural resources. How agro-tourism was a factor of such local agricultural occupation improvement is presented in Figure 3.

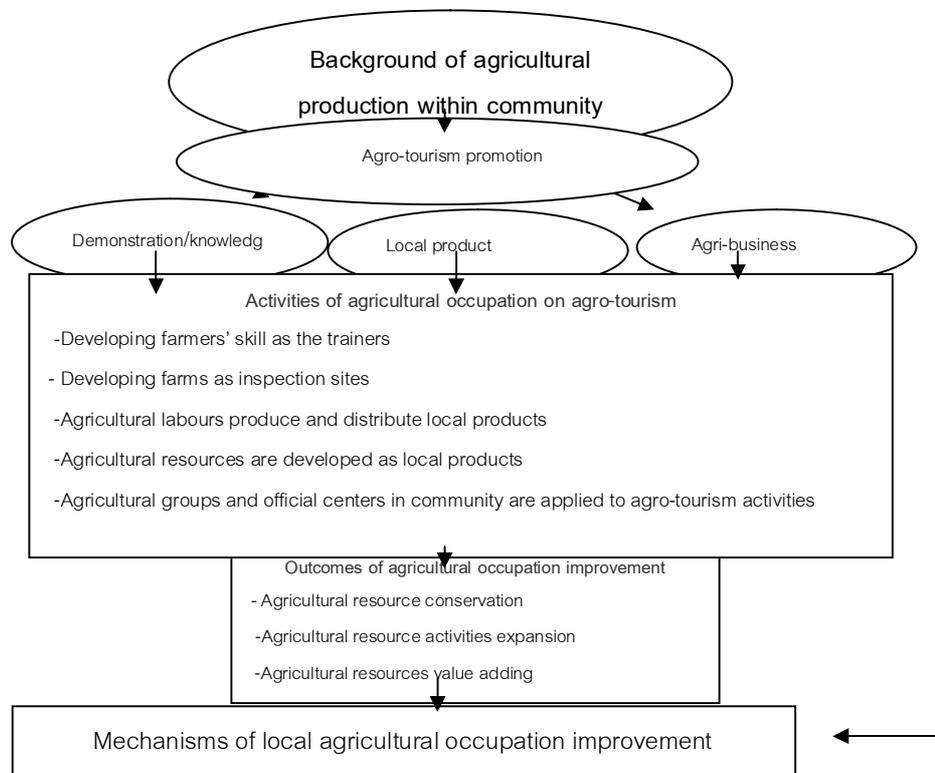


Fig. 3. Mechanism factor of local agricultural occupation improvement

Based on Figure 3, it is the linkage of background of community's agricultural occupation, features of agro-tourism activities, agricultural resources use, and outcomes of agricultural occupation improvement. This linkage was explained that features of agro-tourism activities (study/demonstration, distribution, and agri-business guidance) played a role as a mechanism of agricultural technology development and publication. These

agro-tourism activities provide agricultural demonstration centered as a location for agricultural training and education. In this operation, it led to a development and publication of agricultural technologies among local farmers and between visitors and locals. Besides, farmers in Chang Klang district improved their agriculture by means of the cooperation from agricultural demonstration centers.

If the findings presented as above are compared with previous research, Ciani (1999) shown that the size of farm are closely related with development of agro-tourism activity or there is a link between size of farm and type of visitor offer on agro-tourism farm. The results from Figure 3 shown difference aspect that is type of agricultural production of agro-tourism farm is related with development of agro-tourism activity. The case study of Chang Klang can be explained that the entity of producing process of each farms was the feature of agro-tourism offer on farm.

Other aspect from previous research, Fleischer and Tchetchik (2006) ask that relationships between rural amenities of tourism development and agriculture are of mutual benefit, in the sense that while agro-tourism provides the farmer with auxiliary funding to continue his/her activity, the latter is an important component of agro-tourism? This solution was found in Chang Klang district. As Figure 3 Activities of agricultural occupation on agro-tourism generated rural amenities of tourism development and this development benefit to agriculture.

Local agricultural occupation and source of incomes

Results from previous research shown that the link between agro-tourism and agriculture is getting weaker. In this view, farms who engage in tourism on their farm as an alternative source of income to agriculture slowly divorced themselves from agricultural activities (Busby and Rendle, 2000). According to the finding of hang Klang district, it seemed to be as same as such previous research. Presently, among the boom of agro-tourism in Chang Klang district, local agricultural occupation tend to support tourism activities. According to the results showing that most cases of value adding of agricultural resources intently supported tourism business. In addition, the increase of apiculture and mushroom cultivation was purposed mainly to agro-tourism activities expansion rather than agricultural occupation improvement. At present, many of accommodations for visitors are found in Chang Klang, and it could be said that farmers' incomes tend to heavily rely on tourism, and they would face the problems from the stagnation of tourism. Besides, the study of Brscic (2006) shown that the development of agro-tourism activities is not an increasing factor of agricultural productivity. This finding similar to the case study of

Chang Klang district that is agro-tourism promotion caused agro-tourism farms as small scale in order to fit for tourism business. From this adjustment, agricultural productions were decreased.

How agro-tourism as a decision making factors of farm management?

How agro-tourism as a decision making factors of farm management, Ceballos (1996) implies that environmental and natural resources are maintained owing to some of farmer's incomes are generated from agro-tourism and the rich of natural resources will serve as tourism resources instead of using for agriculture. A case study of Chang Klang can be explained that agro-tourism promotion was not a stabilizing factor of agricultural production and a curtaining factor of product distribution, but it was clear that agro-tourism activity as the features of demonstration/study, and agricultural products distribution are value adding factor of agricultural resources within the farms. This condition influenced the farmers' decision making on farming. Obviously, the changes of farm's objectives such as agricultural farm to be tourist farm and farming system such as monoculture farm to mixed farms were some examples.

Implication

To improve local agricultural occupation, agricultural communities should promote agro-tourism activities as the form of local agricultural demonstration or study with the cooperation among residents. This activity is expected to provide all types of local agricultural resources including a wide rang of community's institutions to agro-tourism promotion, contributing incomes to most stakeholders, and improving local agricultural technologies. The basic understanding of agro-tourism is a means of agricultural occupation improvement is necessary.

Conclusion

A concept of agro-tourism is a means of local agricultural occupation improvement that has been implemented in a number of developing countries. A case study of Chang Klang district revealed that the impacts of agro-tourism on local agricultural occupation with both positive and negative. The positive impacts mainly were the increase of conservation of agricultural, and diversification of agricultural career, whereas agricultural resources trend to be used for tourism rather than agriculture was negative impact. To apply these results to local agricultural occupation improvement, agro-tourism activity as

the feature of local agricultural demonstration can play a role as mechanism of local agricultural occupation improvement.

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References

- Atipnan, V. (1999). Mixed farm though new theory of agricultural extension. Department of Agricultural Extension (DAE), Bangkok; Thailand. (in Thai)
- Boonlum, S., Krachangsri, J. and Pimpa, B. (2004). The action model and agro-tourism route of Chaiya salted egg production group, Tambon Lamad, Chaiya District, Suratthani Province. Research Publication Surattanee Rajabhat University, Suratthani; Thailand. (in Thai)
- Brscic, K. (2006). The impact of agrotourism on agricultural production. *Journal of Central European Agriculture* Vol 7 (2006) No 3.
- Busby, G., Rendle, S. (2000). The transition from tourism on farmers to farm tourism. *Tourism Management* 21 (6). (online), available from www.sciencedirect.com. Accessed May 25, 2010.
- Bureau of Farmers Development. 2005. *The Handbook of Agro-tourism Management*, Department of Agricultural Extension. Bangkok; Thailand. (in Thai)
- Ceballos-Lascurain, Hector. 1996. *Tourism, Ecotourism and Protected Areas*. Gland, Switzerland IUCN – The World Conservation Union.
- Chamnasiri, N., Keawmeung, D., Umrung, M., Watcharakasamesin, V., and Tungsiriporn, P. 2006. Potential of agro-tourism development through communities' participation in Saraburee, Lopburee, Singburee, and Chainart provinces. *Area based development Research Journal*(3) 2 : 69-79. (in Thai)
- Ciani, A. 1999. *The Role of Rural Tourism for the Rural Integrated and Sustainable Development, Rural Development: Contents Model and Policies in the EU Towards the 21st Century*, supervised by Ciani, A, - co-ordinator of the H.E.L.P. Project, Seminar in Italy, Perugia, 18-19 June, 280-303.
- Department of agricultural extension (DAE). 2005. *Handbook of agro-tourism development and promotion project implementation*. Bangkok; Thailand. (in Thai)
- Fleischer, A. and Tchetchik, A. (2006). Does rural tourism benefit from agriculture. (online), available from www.sciencedirect.com. Accessed May 25, 2010.
- Halfacree, K. 1993. Locality and social representation: apace, discourse and alternative definitions of the rural. *Journal of Rural Studies*, 9 (1): 23-37.
- Hall, C.M. and Jenkins, J. 1998. The policy dimensions of rural tourism and recreation in Butler., C.M. Hall and J. Jenkins (eds.), *Tourism and Recreation in Rural Areas*. Chichester: John Wiley and Sons. 19-42.
- Kong-In, T. 2002. A Study of the community potentiality in agrotourism promotion for sustainable development: A case study at Bannateen, Aonang sub-district, Muang District, Krabi Province. M.S. Thesis, Kasetsart University, Bangkok; Thailand. (in Thai)

- Leacharit, A. 2002. Potential of Sampathuan district as agro-tourism site. Bangkok: M.S. Thesis, Mahidol University, Bangkok: Thailand. (in Thai)
- Peimnivat, U. .2001 Management of interpretation and facilities of agro-tourism's operators, a case study of Samut Sakhon province. Bangkok: M.S. Thesis, Kasetsart University, Bangkok: Thailand. (in Thai)
- Sznajder, M., Przezborska, L. and Scrimgeour, F. (2009). Agritourism. UK. MPG Books Group.
- Tanupol, N., Penkan, D., Tanupol, S., Jarungkon, C., Punoi, T. and Supaluck, M. .2000 Development of ecotourism business in Bangpong community, Sansai district, Maejo University, Thailand. (in Thai)
- Thungwa, S. 1998. Analysis of agricultural society system. 2nd Ed. Faculty of Natural Resources, Prince of Songkhla University, Thailand. (in Thai)
- Thuvachote, S. 2007. Agricultural cooperatives in Thailand: innovations and opportunities in the 21st century. Department of Cooperatives Faculty of Economics, Kasetsart University, Bangkok; Thailand. (in Thai)

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