



MODEL OF HIGH-TECH AGRICULTURE TOURISM DEVELOPING SUSTAINABLE ECONOMIC IN DA LAT CITY

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Abstract

Dalat city (Lam Dong province) is one of the first localities which develop high-tech agricultural soon in Vietnam, based on which the technology-based agricultural tourism model is applied. High-tech agricultural tourism has been very successful in countries such as Italy, France, Japan, Korea, Taiwan ... which have a mild climate, diverse natural landscapes, and special cultural values. Da Lat has many advantages to develop this tourism model. The article introduces high-tech agricultural tourism in some countries in the world, refers to the real situation of high-tech agricultural tourism model in Da Lat city in recent years with achievements and limitations and propose a number of solutions to promote the effectiveness of this type of tourism to develop its sustainably in the future.

Keywords: Tourism, Da Lat, high-tech agriculture model.



1. Introduction

High-tech agricultural tourism is a promising area with many benefits. Comparing to many countries in the world, Vietnam has abundant agricultural resources with the characteristics of a tropical country in Southeast Asia and more than 70% of the workforce working in agriculture. If we know how to exploit effectively and creatively, the development of agricultural tourism will have great advantages: not only significantly contributing to the process of economic development, creating jobs, fighting against pennies. agricultural isolation, promoting cultural exchanges of ethnic groups ... but more importantly, promoting international cultural integration.

According to agricultural experts, the implementation of high-tech agricultural tourism models is a very effective form of on-site agricultural goods export and marketing of product origin records, especially when demand for self-protection of food and polluted environment of social community in big cities are increasing, the demand for clean and safe agricultural products is a concern of people in current period. Along with developing specific types of tourism such as sightseeing, convalescence, ecology, etc., hi-tech agricultural tourism is considered a type of great potential, not only contributes to economic development, creates jobs for workers but also promotes integration and on-site export.

2. Subjects and objectives of the study

The article introduces the model of high-tech agricultural tourism in several countries around the world, focusing on the state of high-tech agricultural tourism model in recent years in Da Lat City with achievements, restrictions and proposing some solutions to promote the efficiency of this type of tourism to develop it sustainably in the future.

3. Research method

To do this article, the authors use methods of document analysis, comparative methods, statistical methods, practical observations.

4. Content

4.1 Model of agricultural tourism in some countries in the world

In the world, agricultural and rural tourism is a type of tourism which appears and thrives in the last 2 decades of the 20th century in some European and Asian countries such as Sweden, Denmark, Bulgaria, Hungary, South Korea, Japan, China, Malaysia, Thailand, etc. Currently, many countries have developed a strong and complete agricultural tourism industry because their farming activities are mechanized on a large scale. With private farms, it offers opportunities for visitors to experience a variety of activities at one destination.

In Taiwan, agri-tourism has been developing for nearly 40 years, helping farmers shift from traditional agriculture to recreational agriculture. The farmers here have many ways to attract



tourists, such as the slogan: "Come to Taiwan to pick fruits!". Agricultural tourism areas in Taiwan were built based on economic clusters and private tourism farms that created the wave of agricultural tourism. Subjects of the type of agricultural tourism are livestock, agriculture, forestry, and fisheries. The model of agricultural tourism is developed under the theme of combining products such as tea, rice, flowers, fruits, vegetables, fish and cattle along with recreation, convalescence and convalescence tourism functions, heritage education, cultural preservation, environmental protection, economic development, etc, to promote agricultural tourism to become a model green living model. Currently, agricultural tourism is divided into landscapes and agricultural production sites. Key agricultural production sites include 36 farms (including animal husbandry farms). Simple farms provide visitors with agricultural experience activities such as enjoying fresh berries and experiencing tree picking. For the integrated farm, in addition to providing experiential activities, there is also an entertainment area, catering and accommodation services for guests. At Flying Cow Breeding Farm, visitors can experience milking, feeding calves or enjoying fresh milk hot pot, overnight at the lodge and feel the natural flavor. Besides, by taking advantage of local resources and combining advanced technology that leads to the fact that different activities are available in each season, which can make visitors feel interesting and fresh, agricultural tourism here is highly competitive.

In Japan, one of the most developed industrial countries in the world, and home to developed agriculture, there are excellent models that link high-tech agricultural tourism. Rice field visit in Japan is not only to look at the immense rice fields, but also to see works of art such as Marilyn Monroe, Japanese traditional paintings, pictures of women. During the trip, visitors will know that the image of Gheisa is also inspired by rice and enjoy the products made from rice are cakes, rice, noodles, etc, at the same time; Japanese farmers have taken many initiatives in exploiting agricultural products, creating a model of production - processing - supply - marketing - eating chain to develop tourism in rural and mountainous areas. Guests can both visit, relax, and experience life in a village. One such example is the town of Yufuin in Oita Prefecture, located on the Kyushu Islands, Japan. In the late 1970s, farmers recognized the need for change in local economic development. They identified the factors for Yufuin's tourism development as a combination of agricultural products, rural landscapes, and hot mineral water, although all three factors were compared separately from neighboring areas. it is completely uncompetitive. After that, they formulated a local tourism development and management plan and established a Tourism Management Council to regularly organize discussions and share management experience. They also focus on building and developing local brands, making a difference to the destination. The products with logos are produced by the locals themselves. Residents in the village mainly consume locally produced organic agricultural products made by themselves, and imported products are minimized. To serve guests, the locals restore and preserve Yufuin's traditional food and create new dishes, whose most ingredients are agricultural products that help enrich the experience for tourists.



In Korea, when choosing agricultural tourism, visitors can visit scenic areas or visit key agricultural production sites such as entertainment farms certified for quality or high-quality agricultural areas. A farm, where in the past only onions were planted, became successful with the agribusiness model, with profits doubling after combining tourism and selling agricultural products. In the coastal village of Sinan-gun County, Jeollanam-do Province, when it is just dawn, tourists, including many children, come there to experience the village life. They get a breath of fresh air and are taught by locals how to dig sand and catch crabs - things they never do in big cities. The next day, the children make their own shaved ice dessert with the fruits they have just picked in the garden. Meanwhile, their parents can relive their childhood by participating in a fishing activity at sea. In addition to traveling to traditional agricultural production farms, insect farms in Korea are also becoming increasingly popular with tourists. Here, they can interact with insects and even enjoy the food made from them. The business of these types of services has contributed to a significant increase in income for Korean farmers.

In Thailand - the second largest food exporter in Asia, the leading country in agricultural production in some fields such as crops, livestock, forestry and fishery, the Government has tried to "revive" Agriculture towards sustainable agricultural production. The Tourism Authority of Thailand (TAT) has made many plans to promote and develop community-based tourism to increase farmers' income. Agricultural tourism projects are created to attract domestic and international tourists as well as Thai tourists and educate people about the rural lifestyle to help protect the environment and the country traditions. According to the 2015-2017 agricultural tourism development plan presented by the Ministry of Tourism and Sports and the Ministry of Agriculture and Cooperation of Thailand, four rural tourism destinations are: Khlong Mahasawat (Nakhon Pathom), Pak Phanang (Nakhon Si Thammarat), Ban Khok Muang (Buri Ram), Khao Kho (Phetchabun). Coming to these tourist destinations, visitors have the opportunity to participate in eco-friendly activities and experience rural life as well as explore the process of making local handicrafts. At Khlong Mahasawat, you can visit orchards and rice fields, the local orchid gardens and lotus ponds. You can start your exploration journey by sitting on a large boat from Wat Suwannaram to visit the lotus pond farm and take a small boat to the fields to see people picking flowers, driving a tractor around the garden before enjoying organic fruits and meeting the growers. At Suphatra Land Fruit Garden (Rayong), visitors can explore and enjoy the fruit buffet as well as visit GAP model - application model of agricultural practice. The Community Learning Center at Ban Saladin allows visitors to see how local dishes are made, which include brown rice cakes, sweet pork and salted duck eggs. These activities are a great way for travelers to explore Thai rural life and have a clear view of modern agriculture with high-tech innovations and abundant agricultural land carefully planned. As a result, visitors will not only gain insight into Thai culture but also the opportunity to get great products while the farmers there enjoy the increase in their income.

4.2 The situation of high-tech agricultural tourism model in Da Lat city

With the advantage of an area with favorable soil and climate conditions for a variety of crops, especially vegetables, flowers and fruits, Da Lat has established large-scale concentrated



production areas with high-tech applications. Those are the advantages of developing agricultural tourism. Da Lat agrees that hi-tech agricultural tourism is a competitive product and a distinctive feature that creates a tourism brand in Da Lat - Lam Dong. These products are suitable for local conditions and the needs of travelers.

The high-tech agricultural production development model is considered a breakthrough thinking of Da Lat. Only in a short time developed in this direction, the economic face, local culture have changed drastically. Many areas of vegetables, artichokes, strawberries ... produced under VietGAP standards are granted the right to use the trademarks "Da Lat Vegetables" and "Da Lat Flowers". From the foundation of developing high-tech agricultural production, it will be upgraded to smart agriculture, not only improving productivity, quality of agricultural products, increasing value chains, but also associating with tourism development. Da Lat and surrounding areas farmers produce vegetables and flowers investing in high-tech application process quite synchronously with more than 4,040 ha of greenhouses, nearly 1,040 ha of net houses, nearly 8,300 ha of agricultural mulch, 24,400 ha of irrigation automatic, etc. (1) Along with the development of high-tech application agriculture, tourism is considered a dynamic economy. By the end of 2018, there were 1,399 tourist accommodation establishments; mainly concentrated in Da Lat City, with 20,994 rooms, 426 hotels from one to five stars; 35 tourist attractions were invested and operated, and more than 60 free attractions, including natural beauty spots, architectural works, religious facilities, trade villages, ethnic minority villages geography, archeology, etc, serving the entertainment needs of tourists (2). In particular, Lang Biang World Biosphere Reserve covers more than 273 thousand hectares, the entire space of Dalat city, along with over 110,000 hectares of 3-leaf pine forests and over 14,000 hectares of agricultural land applied high technology, etc. With the intention of becoming a center of hi-tech agriculture, with the goals of becoming a flower and vegetable center, Arabica - Robusta coffee center, tea center, seedling production center, center of dairy cows - cold-water fish, medicinal centers, etc. of Vietnam and surrounding region, Da Lat has great potential of developing high-tech agricultural tourism.

Because of no season and limited time, tourists coming to Da Lat at any time can experience agricultural tourism. Many households and businesses have combined agricultural development with tourism activities. High-tech agricultural tourist destinations in the city include companies, farms, and farmers with diverse facilities, products, and good quality for tourism. In the five traditional flower villages of the plateau city, three flower villages including Ha Dong flower village, Thai Phien flower village and Van Thanh flower village are the key destinations for tourists to visit, learn about the technology of flower growing, production and harvest flowers.

With the application of high technology in production with favorable natural conditions, many farmers here have turned to agricultural tourism. Many farmers in Cau Dat tea hill area and Tram Hanh bravely tried the new job of welcoming tourists to experience the steps of making dried persimmons, doing farm work such as tending trees, agricultural harvest. Many visitors came to garden houses and farms in Dalat to live together, work together and experience the life of farmers. High-tech agricultural tourism in Dalat has attracted a certain attraction to tourists, partly satisfying



the needs of visitors about learning hi-tech agriculture in Da Lat vegetable and flower production. The number of visitors to Da Lat is increasing year by year. In 2010, Da Lat welcomed 3 million visitors, in 2015 it was 5.1 million. In 2018 this figure reached 6.5 million visitors (3). This success shows that the unique attraction of the type of hi-tech agricultural tourism that people around here bring to visitors.

Despite encouraging results, it must be frankly admitted that hi-tech agricultural tourism activities in Dalat are not truly on a par with the joint development of tourism and agriculture.

Firstly, About high-tech service providers: Tourism activities are still spontaneous and small; inexperienced, bold smallholder thinking, lack of diversity and professionalism. Agricultural tourism products are not as expected, expansion services are poor, low quality. Most of the services only meet the needs of sightseeing, dining, and experience of visitors at a simple level, have not taken full advantage to attract visitors, especially international visitors as well as increasing spending power from customers through the use of auxiliary services.

The issue of marketing and advertising of agricultural products has not been focused, products are not really attractive and unique, with low creativity overlapping and less focused on brand, many farmers mainly pay attention to creating products and pay less attention to market access issues. Even in Da Lat, where agricultural tourism is considered to be quite well developed, most tourist farms are small-scale, duplicating ideas and products. Therefore, visitors only come from one to two places but do not want to go to third places (4).

Skills to serve agricultural tourism are lacking and weak, people are used to agricultural production but do not have enough skills to serve tourism professionally. Many tourist sites are lack of human resources, especially those with high service and creative skills, without the help and guidance of travel agencies and tour operators. Along with that, many tourist sites have labor but the rate of trained is low, mainly unskilled labor, failing to meet development requirements. For example, in Thai Phien flower village, although this is an address visited by many tourists, it is not a destination in the tour organized regularly. When tourists come here, tourists mainly visit but do not realize the professionalism of tourism among local flower farmers (5). Of course, Thai Phien flower village is just one of the examples. The question is how to build a number of vegetable gardens and flower gardens that are both a place for agricultural production and high-tech applications, as well as an indispensable tourist destination in tours in a proper way. It is necessary to promote the effective role of owners of farms, businesses and farmer households in organizing the implementation of an agricultural tourism model. Therefore, it is necessary to focus on fostering professional skills for tourism, training farmers to become professional travel guides. Training and retraining for farmers on skills and attitudes of customer service must be at the forefront.

Lack of links between people and businesses to do tourism travel. Development of agricultural tourism is indispensable for the role of tour operators because they will contribute significantly to the stages of creating novel and attractive agricultural tourism products. At present, many



agricultural tourism destinations have difficulty connecting with travel businesses. In order to improve and build agricultural tourism products as well as attract domestic and international visitors, it is necessary to have the linkage and benefit-sharing between gardeners, farms and travel agents. In addition to focusing on training and fostering for indigenous people to have professional skills of performing, demonstrating and serving guests, in addition to the ability to manage and operate agricultural tourism establishments and trade villages, there must join hands of the community. Must build where people live into a more beautiful place, worth living and for visitors to have a unique experience to remember forever to visit.

Secondly, In terms of infrastructure and auxiliary facilities The agricultural tourist destinations have not been invested to ensure quality, remain at a simple level, do not meet requirements, many tourist destinations are crowded but temporary toilets such as hydrangea garden, F flower field ... Many high-tech agricultural tourist destinations have no parking, no resting places for tourists, and there are guest spots, only visit, and no experience to farm's work (6). There are even places where "crying wine and selling vinegar" occurs, visitors come to the gardens and farms are forced to buy products at prices higher than the market price. Therefore, infrastructure and auxiliary materials in many agricultural tourist destinations need to be invested in a complete manner to ensure quality. For integrated farms, in addition to providing experience activities, an entertainment area, catering services, and accommodation facilities should be built. According to the real estate expert's explanation, agricultural tourism is still essentially a tourist accommodation product. If the system of utilities is bigger and more unique, friendly service will be the most effective way to attract visitors.

Thirdly, Regarding the State management agencies at the central and local levels. The authorities and specialized agencies in the locality are still confused with this type of tourism, agree to support but do not have the close direction, and no uniform policy mechanism.

To develop agricultural tourism, it is necessary to have a clear mechanism for infrastructure development and methodical investment policy, formulate specific policies for agriculture and farmers, encourage product development and enhance application exploitation. Modern information and communication technology, effective promotion and and promotion policies. The Ministry of Agriculture and the Ministry of Culture, Sports and Tourism should integrate and guide local agencies in implementing agricultural tourism. Provinces and cities must plan locations, landscapes and agricultural tourism products. Director of Langbiang Farm Co., Ltd. Tran Huy Duong said: "We have to be methodical, not to be impatient. Must answer the question, what do tourists need? What is the agricultural tourism business?" That way, you can begin to do it successfully. After that, the government must take part in, have mechanisms, policies, and guidelines for implementation. According to Mr. Tran Huy Duong: "There have been a few places where the model was completed, but this department complimented but other state management agencies said there is a violation. Obviously, agricultural tourism is done in agricultural land, but agricultural land is not built, it is a shortcoming that needs to be removed "(7).



Talking about these "bottlenecks", Dr. Pham S, Vice Chairman of Lam Dong People's Committee said that: "Because of the newly formed, this model still has some limitations, such as no previous planning, there is no ready infrastructure, so there is a fragmented development that has not yet been connected to an agricultural tourism area in the region, while human resources and the connection between tourism and agricultural consumption production is still limited. The promotion and development of criteria for agricultural tourist attractions are also a problem in need of practical solutions "(8).

Many experts and managers said that it is necessary to have a plan to develop agricultural tourism facilities to ensure diversity in types, preserving cultural identities, protecting the environment of natural landscapes and fields. at the same time, makes the management more convenient. Besides, to create the architectural aesthetic appeal for the works. In the process of combining hi-tech agriculture and tourism, it is important to focus on improving the quality of each tourist destination under this model, rather than massively expanding. Which models are so beautiful, clean and ecological standards, put into operation to attract and "retain" tourists, avoid the situation of "worms sorrow soup".

Promote linkages between state management agencies, farmers, scientists, travel businesses, and the synergy between tourism and agriculture; formulating a national program on developing hi-tech agricultural tourism, researching and establishing an agricultural tourism association so that in the near future, hi-tech agricultural tourism will gradually become a competitive advantage of Vietnam tourism. Particular attention should be paid to the development of hi-tech agricultural tourism between localities in the province and between the provinces in the region, the links between industries to build brand models and special tourism products. enemies, associated with the potentials, natural advantages, as well as unique features unique to culture and people.

The Central Highlands in general and Da Lat in particular have many advantages to develop hi-tech agricultural tourism. However, each locality has its own advantages in terms of natural and socio-economic conditions, so it is necessary to identify specific roadmaps and plans, develop agricultural tourism maps and build models with strong points, have their own products and products on the basis of regional and seasonal characteristics. For example, coffee. Although it is a popular crop in the Central Highlands, each province must create its own brand of coffee, not to overlap. Along with that, it is necessary to preserve and develop the profession of making the products as well as the long-standing market of those products. Only exploiting the distinct and striking values of agriculture in each region, combined with cultural values, can create unique and attractive products with high and sustainable added value. And Da Lat cannot ignore opportunities in the agricultural value chain to attract tourists, increase income for farmers and benefit the community by combining high-tech agriculture with tourism. services, such as the export of on-site agricultural products (sales), catering, convalescence, and peasantry, etc.

4.3 Solutions



High-tech agricultural tourism in Vietnam as well as in Da Lat has only been formed in the last few years, so there are still some limitations and challenges that need to be overcome. For tourism associated with agriculture develop commensurate with its potentials, advantages, and towards sustainable development, it is necessary to synchronize the following steps and solutions:

Firstly, keeping the environment green, clean, safety, environmental sanitation; focusing on developing green agriculture, limiting the use of chemicals, restoring traditional products and local specialties; replicating types of natural farms, organic farms, thematic farms, high-tech agricultural areas associated with the development of residential communities and urban planning. The rain in the last two days of August 7th- August 8th, 2019 caused Da Lat and the surrounding districts to be deeply flooded, dozens of people isolated, houses and bridges were swept away, more than 1,000 hectares of trees were affected. According to many experts, the main cause of this situation is that the greenhouse caused rainwater, not to be absorbed into the ground but poured directly into streams, creating great pressure for downstream. Therefore, it is necessary to re-plan the density of grid houses, limit greenhouses away from streams in order to have a natural landscape and also can limit concentrated water quickly causing large flows, minimizing the amount of water poured out-stream as recently.

Secondly, the Government, ministries, central agencies and localities should pay attention and actively implement this field through the development of specific and feasible mechanisms and policies, especially preferential policies on land, tax, capital ... to encourage investment. They also should develop agricultural tourism program associating with building sustainable agriculture; build agricultural tourism in association with building a new countryside; make the proper investment in infrastructure for agricultural tourism such as roads, electricity and clean water; promulgate a set of criteria for agricultural tourism; increase investment promotion, promotion, introduction ...

Thirdly, it is necessary to identify the main market of agricultural tourism which is the domestic market of tourists at present because foreign tourists trendy always look for adventurous destinations, countryside, where were still kept the wild beauty. In addition, students are also an important tourist market through programs and activities of school tourism, so we should not underestimate the quality and the price of service.

Fourthly, enacting policies for technical and technological support, paying more attention to the element of human, improving the organizational skills, training sessions of tourism activities for businesses, organizations, and households doing tourism.

Lastly, paying attention to the selection and development of a tourist model associated with non-rampant agriculture and rural areas to create typical concentrated agricultural production regions and to develop a tourist scale model. Products must be clean, safe and ideally organic agricultural. It is necessary to provide services to meet the increasing needs of visitors, not following the trend of serving anything that is available.



5 Conclusion

High technology is becoming more available in the fields, farms of Vietnam with the fierce participation of leading corporations and startups. High-tech agriculture is no stranger to Vietnamese farmers, and agricultural tourism has expanded widely to the Northwest, the Red River Delta, the Central Coast, the Central Highlands, and the South. Developing agriculture and tourism is the shortest way to alleviate poverty and create high quality, cultural, civilized and sustainable life. It is important to improve the visitor experience and technology is the key. To effectively implement the hi-tech agricultural tourism model, all levels and branches need to study and formulate practical and specific guidelines and policies, find solutions to contribute to the development of agricultural tourism. High-tech enterprises of provinces, cities in general and Da Lat in particular, develop in a sustainable direction, in association with the protection of environmental resources

6 Sources of information

- (1). Văn Việt. (2018/14/6). *Lam Dong high-tech agriculture - a new starting point*. Retrieved from <http://baolamdong.vn/kinhte/201806/nong-nghiep-cong-nghe-cau-lam-ong-diem-xuat-phat-moi-2897929/>
- (2). Mai Văn Bảo. (2018/21/11). *Da Lat - Lam Dong welcomed more than 6.5 million visitors*. Retrieved from <http://www.nhandan.com.vn/du-lich/item/38315502-da-lat-lam-dong-don-hon-6-5-trieu-luot-du-khach-nam-2018.html>
- (3). Lan Anh. *Impressive hi-tech agricultural tourism in Da Lat, Lam Dong*. Retrieved from <http://vovworld.vn/vi-VN/viet-nam-dat-nuoc-con-nguoi/an-tuong-du-lich-nong-nghiep-cong-nghe-cau-o-da-lat-lam-dong-406101.vov>
- (4), (5). Vu Dinh Dong. (2018/24/8). *Agricultural tourism - A strength but little attention*. Retrieved from <http://www.qdnd.vn/kinh-te/cac-van-de/du-lich-nong-nghiep-mot-the-manh-nhung-it-duoc-quan-tam-547779>
- (6). Khắc Dung. *High-tech agricultural tourism in Da Lat, Lam Dong*. Retrieved from <https://www.dalattrip.com/dulich/du-lich-nong-nghiep-cong-nghe-cau-o-da-lat-lam-dong/>
- (7), (8). Mai Van Bao, (2018, November 24). *Farming tourism on Lam Vien plateau leads by* <http://www.nhandan.com.vn/du-lich/item/38342002-du-lich-canh-nong-tren-cau-nguyen-lam-vien.html>