



## **Leisure Agriculture in the Era of Alternative Tourism**

**Tsai-Fa(TF) Yen<sup>1\*</sup>, Jianlin Xiong<sup>2</sup> and Yu-Ming Yan<sup>3</sup>**

<sup>1</sup>*Department of Tourism Management, College of Tourism and Urban-Rural Planning, Xichang University, Sichuan, China.*

<sup>2</sup>*Department of Urban-Rural Planning, College of Tourism and Urban-Rural Planning, Xichang University, Sichuan, China.*

<sup>3</sup>*Department of Tropic Agriculture and International Cooperation, National Pingtung University of Science and Technology, Taiwan.*

### **Authors' contributions**

*This work was carried out in collaboration among all authors. Author TFY designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors YMY and JX managed the analyses of the study. Author JX managed the literature searches. All authors read and approved the final manuscript.*

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### **ABSTRACT**

The concept of alternative tourism mainly focuses on reducing the impacts to the tourism development on the ecological environment and driving the tourism industry into the direction of the sustainable development through different types of tourism mode (activities), such as agricultural tourism, rural tourism, industry tourism, and cultural tourism, etc. However, fewer studies discuss the feasibility of leisure agriculture as a possible tool of alternative tourism. The objectives of this study is to verify the advantages of alternative tourism and to assess the feasibility of leisure agriculture as a possible tool of alternative tourism based on literature review. Findings show that the development of leisure agriculture will have positive and negative impacts on the rural environment, economy and social culture. In general, the positive benefits outweigh the negative ones. Therefore, leisure agriculture is one of the feasible tools to achieve the purpose of developing alternative tourism, and the development of leisure agriculture is indeed one of the feasible alternatives to tourism.

**Keywords:** *Alternative tourism; leisure agriculture; environmental impact.*

## 1. INTRODUCTION

Tourism has been called green industry or smokeless industry. It mainly uses various resources of tourist destinations to attract tourists to come to visit and satisfy the needs of tourists and tour operators. According to the social exchange theory (SET), tourism is widely regarded as an industry with a number of economic benefits. The development of tourism can provide the opportunities of investment and employment for local residents and improve the local economy [1,2]. For example, in economically underdeveloped areas, there is a lack of business activities of industrial and commercial enterprise, investment and employment opportunities. Such as to develop tourism, it may be necessary to design and build infrastructure including the roads, the parks, the public toilets, the tourist centers, the footpaths, the rest areas, the shopping areas and the dining areas. It can provide investment opportunities for local construction, civil engineering, hydropower engineering and other industry, and operators can profit from contracting related projects. When completion of the engineering and start working, it may require security guards, cleaners, guides, various waiters and management personnel which can provide employment opportunities for local residents. Furthermore, in order to serve tourists well and receive tourists into scenic spots, it may create more transportation investment opportunities, such as taxis, tricycles, and motorcycles. In addition, the arrival of tourists will bring the needs for food and accommodation, and will also promote the venture capital investment and employment opportunities in the catering and accommodation industries. Therefore, the development of tourism can indeed bring economic benefits such as investment and employment to residents.

Furthermore, tourism also increases personal income and improves the living standards of local residents [3]. For example, in order to receive tourists, many residents invest in tourism jobs such as transportation entrepreneurship, catering and accommodation, and increase their personal and family income. What's more, the development of tourism may improve the out-of-town roads of the community to make it flatter and wider, and residents can enter and leave the county town more safely and conveniently for work, schooling, medical treatment, purchasing, visiting relatives and friends, etc. That is developing tourism to improve local transportation and make residents travel more

safely and conveniently. Secondly, in order to serve tourists and meet their needs, public facilities such as stations, parking lots, parks, and public toilets will be added in the community to improve traditional markets and city appearances, and improve the quality of life of local residents. All of these indicate that the development and introduction of tourism can increase personal income and improve the living standard of local residents.

However, with the development of tourism, it may have an adverse impact on local communities. Scholars believe that tourism development may bring negative impact to community residents, which refers to the price that tourism development must pay, including tourism may disturb local residents, interrupt the pace and pace of local life, damage the environment and facilities of local community, bring noise, pollution, traffic congestion, and make local prices rise [4]. For example, in Jiuzhaigou, Mount Emei, Qingcheng Mountain, Leshan Giant Buddha, Dujiangyan, Langzhong Ancient City, the top ten tourist destinations in Sichuan Province, overloaded tourists crowded into Jiuzhaigou, making local roads often jammed, too many cars and tourists also brought car noise and tourist noise; excessive tourists bring in the garbage they left behind, and the problem of garbage disposal also occurs in the local area; tourists eating and staying in the local area produce more sewage from the kitchen and hotel, waste and excrement, allowing local water resources and the soil is threatened. A small number of unscrupulous tourists' behaviors, such as entering private houses privately, picking flowers, climbing trees, and picking fruits, etc., interfere with the daily life of residents, and also affect the local security. Therefore, the development of tourism will bring both favorable and unfavorable effects.

Reflecting on the problems mentioned above, how to solve the adverse effects brought about by these tourism developments has always been an emergent topic that has been valued by academics and government departments. However, there is no consistent view so far. For example, in the long-term tourism development plan, the Sichuan Provincial Government has proposed an annual growth rate of more than 15%. The province's total tourism revenue in 2020 will double from 2015 to 1.2 trillion yuan; the province will benefit poverty by developing tourism. The new target is that the population accounts for 20% of the provincial poverty alleviation mission. Through this plan, Sichuan

Province will build 5 major regions, 10 major tourist destinations, and 10 top quality tourist routes. Through this plan, we try to divert tourists and balance regional development. This is actually an alternative tourism concept. Through systematic planning and guidance, tourists are dispersed to avoid excessive concentration of tourists, which will adversely affect local tourism development, which in turn affects the sustainable development of the tourism industry and the rights and interests of residents.

In order to address the above problems, this study believes that it is possible to form alternative tourism through the development of leisure agriculture. Leisure agriculture has a special type of agricultural management. Basically, it uses existing farm resources, rural resources and agricultural industry resources to engage in leisure tourism activities and develop leisure tourism industries. The development of leisure agriculture can not only maintain the original form of agriculture, but also absorb other tourists from too many tourist destinations, which are beneficial to tourists, agricultural departments, tourism departments and government departments. Therefore, the following will explain the concept of alternative tourism, the necessity of alternative tourism and the assessment of leisure agriculture as alternative tourism, a reference for industry and government departments.

## **2. THE CONCEPT OF ALTERNATIVE TOURISM**

### **2.1 The Background of Alternative Tourism**

From the industrial revolution of 1760, the emergence of steam engines had changed which the way of transportation was carried, and people could move more quickly to the distance through ships and planes. Since 1970, an era of large-scale integration of tourism and the emergence of a large number of tourism/mass tourism, which is an activity organized through travel agencies to arrange tourism [5]. Nevertheless, there are still some explorers or adventurers who don't follow the regular tourism, forming another way of travel, which is alternative tourism, or that alternative travel is an alternative to regular tourism.

### **2.2 The Meanings of Alternative Tourism**

Previous studies have illustrated that the term alternative tourism is usually used to describe tourism which is characterized by small-scale

and locally owned and controlled operations, offering experiences related to, for instance, educational tours, volunteer travel, farm-stays, and ecotourism [6,7,8].

Besides, according to Wikipedia, different from the supply of many tourism, through the organization and human resources to achieve, alternative tourism combined with tourism products or individual tourism services [9]. Baidu encyclopedia is called alternative tourism, selective tourism or non-mass tourism [10]. In other words, when tourists don't use travel agency to arrangement, their own travel itinerary and travel mode, their own decision to choose and change the means of transportation, to visit the location, route and stay time by own arrangements, their own confirmation of accommodation and dining style of travel, can be called alternative tourism. This tourism model can ensure that the cultural, social and natural environment of the tourist destination does not have a destructive impact, and can promote the equal and mutually beneficial relationship between tourists and the residents of the destination, safeguarding the interests of the local residents and promoting the healthy development of the local economy and society [9].

### **2.3 The Characteristics of Alternative Tourism**

Alternative tourism is non-conventional tourism, and tourists usually have different preferences from normal tourists, such as going to less tourist places, getting close to local culture, experiencing local life or satisfying their own exploration, novelty, knowledge, study or research and other different motives and needs. Therefore, the study indicates that alternative tourism has the following characteristics [11].

- First of all, fewer people. Limit the number of tourists, control the scale of tourism activities, and avoid pressure on the destination environment;
- Second, various forms of activities. Flexible tourism activities, tourists can according to their own interests and hobbies, choose the form of tourism;
- Third, move in small areas. Select a feature destination with low tourist density. Especially the original ecological destination, and the destination of a tourism activity is limited to a small range, in order to facilitate tourists to get close to the destination and experience the local characteristics;

- Fourth, sense of responsibility. It emphasizes the responsibility consciousness of tourists and tour operators to society and environment, and the tourism destination development follows the concept of sustainable development.
- Fifth, communicate with local residents. Actively promote the contact and communication between tourists and local residents to enhance mutual understanding and mutual respect;
- Sixth, economic benefits. The price of tourism products is relatively high, which brings better economic benefits to the tourist destination.

Furthermore, alternative tourism usually requires many supporting measures, and regulatory support from government departments plays a key role. Therefore, alternative tourism should meet the needs of tourists, operators and local residents at the same time. Therefore, in order to ensure the tourism safety and quality of tourists, the local government must formulate relevant laws and regulations on catering, accommodation, transportation, tourism reception, etc., to ensure that the local environment ecology can be treated as it should be, the destination merchants can obtain their due benefits, and the local residents' lives are not unduly disturbed, forming a perfect tourism supervision system.

In addition, in the era of science and technology, tourists to carry out alternative tourism, destination to develop alternative tourism, must make good use of modern technology. For example, if visitors can use mobile phones and computers to query the relevant information of destination travel, it will significantly reduce unnecessary time, money and mental waste, and reduce their travel costs. If the destination operator can use WeChat, Weibo, QQ and other self-media, as well as telephone, mobile phone, computer and other tools, it is easier to contact tourists, prepare manpower and materials early, and be more efficient and effective in the operation of tourism business. It can not only reduce costs and control risks, but also meet the needs of tourists and create profits.

### **3. THE NECESSITY FOR ALTERNATIVE TOURISM**

In terms of the characteristics of alternative tourism, this paper will explain the necessity of developing alternative tourism from the aspects of supply, necessity and technology.

### **3.1 The Dimensions of the Supply**

- Resource limited

Limited resources refer to here, including tourism resources and human and material resources of tourism enterprises. Tourism is an industry that makes use of natural and cultural resources to provide related services and attract tourists to visit its destinations. In the development of tourism resources, most of the natural resources are limited. Once developed or destroyed, it is difficult to recover, so the scarcity of natural resources will form the restriction of tourism development. In terms of cultural resources, although most of them can be copied, doing so will cost a lot. Especially the preservation and maintenance of cultural resources are not easy. However, in the absence of supporting measures, the current mass tourism, often swarm to some specific scenic spots pilgrimage. The limited tourism resources are easy to form an injury. In addition, this phenomenon also forms a pressure on tourism enterprises. Tourism operators have to serve so many tourists in a short time, so the quality of tourism services is very worrying when manpower and material resources are tight. Therefore, under the premise of limited resources, developing alternative tourism can reduce the impact on tourism resources and disperse the reception risk and pressure of tourism enterprises, which is indeed a feasible and necessary scheme.

- The capacity of the destination is limited

As mentioned above, the resources of the tourist destination (tourism resources and tourism enterprise resources) are limited, and the capacity of the destination is limited, including the number or flow of tourists that the scenic spot can accommodate at the same time, the capacity of tourism traffic, the reception space and capacity of restaurants, the number of hotel rooms and accommodation, etc., all have their limitations. Therefore, it is necessary to control the number of tourists to an appropriate extent in order to make tourists come happily and leave safely and avoid the sense of crowding caused by too many tourists visiting at the same time, which will cause damage and damage to the ecological environment and the facilities and equipment of the community environment, under this premise, the development of alternative tourism can enable tourists to know the current status of the capacity of those tourist areas and tourist spots in advance or in real time, so as to

avoid tourists from taking advantage of the prosperity to go back and maintain the comfort level of the destination tourism environment. Therefore, it is necessary to develop alternative tourism.

- The homogeneity of the product

For tourist destinations, the same product configuration is an old topic, and has been criticized by tourists. This arises from the same area, natural resources and conditions to provide tourists experience difference, the formation of landscape architecture, the same or similar interpretation methods and play similar, characteristic snack food homogenous, tourism body activities(such as picking, riding a bicycle, etc.) homogeneity, special local products and souvenirs homogeneity, even the experience the phenomenon of homogeneity. For example, the ancient town tourism in China, because of a few ancient town tourism well done, under the policy guidance, around the rise and imitate, results in the ancient town tourism development planning, the ancient town of mutual reference and imitation, not only building structure, building, selling items inside the same also, forming highly homogenized phenomenon. Finally, the ancient towns that developed ancient town tourism earliest still have a large number of tourists, while the later towns that copy and imitate others have few tourists. In order to avoid product homogeneity, it is necessary to develop alternative tourism and create a unique reception model that is difficult to imitate and copy.

- The mess of the price

In the scenic spots with continuous holidays, many tourists have faced price chaos, that is, to shop around in the tourist area. Moreover, the lower the price of tourist products is, the greater the bargaining space is. In addition, some tourist activities in the scenic spot, are often a price per person, the formation of tourists were killed events.

Mass tourism is characterized by a large number of people, to win the quantity. Tourists sign up for tour groups to participate in mass tourism, most go to well-known scenic spots, originally for convenience, choose their favorite tour to see flowers, often sleep on the bus, get off to pee, walk a few steps, and eat. Therefore, on the supply side, mass tourism is basically priced by the relationship between supply and demand. The cost of tour operators in a group is basically the same, and the tourist commodities sold by scenic spot operators are similar, so some price

chaos will be formed. Higher prices will be charged for non-local visitors, non-negotiable visitors, and lower prices for local visitors, overstocked or closed hours. Some shops sell fakes, passing them off as genuine, creating a chaos of quality and price.

In order to avoid price chaos, develop alternative tourism, establish perfect supervision laws and regulations, favorable scenic spots, scenic spots in the business operators in the operation of more standardized, reduce the tourists by pit, shops for tourists unhappy and cut the price unreasonable phenomenon. In addition to maintaining the image of the tourist destination and the reputation of the hotel, it is more conducive to the sustainable development of the tourist destination. Therefore, it is necessary to develop alternative tourism and standardize the price of destination tourism commodities.

### 3.2 The Dimensions of the Demand

The so-called demand side here is mainly the transformation of tourism needs. In the past, because of limited income and few vacations, based on convenience and cost reduction considerations, travel consumers preferred arranging trips through travel agencies and going to some big attractions to see flowers. At present, the overall national income level is high, and the per capita GDP is close to 10,000 US dollars (9,770 US dollars in 2018). The state has a clear policy on labor vacations. Most travel consumers are more able to decide their own travel methods under the premise of money and leisure, and go to some to meet their own needs attractions. Therefore, the change in tourism needs is reflected in the following aspects:

- The elasticity of travel

Whether traveling abroad or domestically, modern travel consumers may only decide on rough destinations and routes. Sometimes, after arriving in the local area, you can adjust the travel route, dining, and accommodation. In this context, the development of alternative tourism can meet such needs. Alternative tourism provides unconventional tourism services, which can provide tourists with customized itineraries. In most cases, these tourists can be accommodated with greater flexibility. Therefore, it is necessary to develop alternative tourism.

- The traffic experience

Compared with mass tourism that uses public buses as the main means of transportation in the

destination, modern travel consumers prefer a variety of transportation experiences. For example, riding a double-decker bus (Hong Kong), super long subway elevator (Chongqing), mountaineering cable car (Tokyo Hakone) or climbing in a sedan chair (Fujian Wuyishan Tianyou Peak), riding a Mercedes-Benz (Inner Mongolia), etc., are all diverse transportation experiences. It can also meet the needs of tourists for transportation experience. In this context, the development of alternative tourism can meet such needs. The development of alternative tourism in different regions may have its own unique transportation vehicles, which have unique appeal and can absorb the tourism consumers who have these tourism preferences. Therefore, the development of alternative tourism is necessary.

- The Windowless experience

In addition, more and more travel consumers are inclined to engage in windowless travel experience, using windowless vehicles such as walking, skateboarding, bicycles, and electric locomotives to skillfully combine sensory experiences such as sight, hearing, and taste to complete the travel itinerary. Especially in recent years, bicycle tourism has become more and more developed. You can exercise your body and slow down, while enjoying the scenery of the fields, and achieve the goals of sports, tourism and self-challenge. In this context, the development of alternative tourism can meet such needs. The basic attribute of alternative tourism is to maintain the ecological environment and reduce the adverse impact of tourism development on the ecological environment and residents. For travel consumers who have this windowless experience concept, alternative travel meets their needs. Therefore, it is necessary to develop alternative travel.

- The food experience

All tourists are inseparable from eating, and modern travel consumers sometimes take food as the focus of travel, trying to meet their needs for local specialties by eating all over the local cuisine. Therefore, in addition to Michelin parity food shops and traditional food streets, the staple food and living food of local residents are also the focus of the search. In this case, the development of alternative tourism can meet such needs. Alternative tourism emphasizes the local sales of real estate and the processing of ingredients in the season. Providing local cooking and local eating methods can meet the needs of the gourmet experience consumer

group. Therefore, it is necessary to develop alternative tourism.

- The soul experience

Compared with the traffic experience and the windowless experience, which consumes more physical energy, the spiritual experience focuses on the feeling in the heart. This kind of spiritual experience may come from religious beliefs. You have to go to worship every year to seek spiritual comfort; or revisit the old land to relive the colorful life of studying and working here; or reviewing special events and feeling the past this encounters the other half, or an important person in life, or an important event in life, or an important event in history. In this case, the development of alternative tourism can meet such needs. Alternative tourism emphasizes in-depth experience, with the principle of respecting local life culture, including clothing, food, housing and transportation culture, as well as various monuments and buildings, to meet the experience needs of tourists' body, mind and soul. Therefore, it is necessary to develop alternative tourism.

- The interpersonal interaction

Compared with traditional mass tourism, scenic spots are often over-commercialized during the travel process, and the greetings and correspondences of hypocrisy or business interests come first, sometimes making people uncomfortable. Modern travel consumers are eager for sincere and true human interaction. Sometimes I hope that this trip is not a business relationship, but an interaction of family, neighbors or friends. Moreover, I hope that through this interactive way, I will leave an indelible stroke in my diary, and even compose a beautiful movement. In this context, the development of alternative tourism can meet such needs. Alternative tourism emphasizes interpersonal interaction, interacting with tourists in a pious manner by locals, treating tourists as relatives, neighbors or friends, real and simple, a little intimate and a little sweet, which can meet the needs of tourists for interpersonal interaction, so it is necessary to develop alternative tourism.

### 3.3 The Dimensions of the Surface Science and Technology

- The improvement of the basic infrastructure construction on communication

At present, the country's communication infrastructure has reached 99 percent, which

means that there are base stations everywhere, with signals and the ability to use mobile phones for inquiry and trading. In this case, travel consumers can more quickly collect travel destination food, accommodation, travel, travel, shopping, entertainment and other related information, convenient arrangement and adjustment of travel itinerary. Therefore, it is a good opportunity to develop alternative tourism by enabling consumers to more accurately assess the destination and type of tourism they want to visit. Accordingly, if alternative tourism can be developed at this time, it can not only meet the needs of consumers, but also share the tourist flow of tourist hotspots, and give consideration to the carrying capacity of the environment and promote the overall development of tourism. Therefore, it is necessary to develop alternative tourism.

- The accessibility of communication tools

In the age of science and technology, the popularization of communication tools makes it more convenient for travel consumers to inquire and buy travel products. In addition to the average house phone, almost everyone has a mobile phone, and a high percentage of people have laptops, tablets or desktops that can search for travel information if they have access to the Internet. In this case, tourism operators can use communication tools to market their products, consumers can also use mobile phones, telephones, computers and other communication equipment to trade, and tourism regulatory authorities can also use communication tools to release traffic conditions or flow of people. When tourism consumers find that there are too many cars in a certain area, they can start alternative solutions and change the travel route. This situation drives the development of alternative tourism. Therefore, the popularization of communication tools will drive alternative tourism, and it is necessary to develop alternative tourism.

- The applications of the E-commerce

Since the rise of the Internet era in 2000, Baidu, Alibaba and Tencent, the three major domestic Internet groups, have successively developed e-commerce platforms, such as Taobao, Jingdong and VIPSHOP, to develop e-commerce through these platforms. Whether large tourism groups, or small self-employed, can develop tourism through e-commerce. In other words, e-commerce under the Internet generation changes the traditional way of transaction and also affects the ecology of tourism. The tourism industry has joined the online to offline (O2O)

operation mode. For example, travel agencies set up OTA (online travel agent), hotels set up online platform trading system, and catering industry joined Meituan and other delivery systems. Therefore, the application of e-commerce changes the original business model of tourism and also changes the consumption habits of tourism consumers. Tourism consumers have more opportunities to directly contact with tourism destinations catering, accommodation, travel, entertainment, shopping and other operators, reducing the exploitation of tourism intermediaries. In this context, it is beneficial to divert tourists, which not only saves tourists' travel costs, but also increases the development opportunities of minority tourism operators. Therefore, the application of e-commerce promotes the development of alternative tourism.

#### **4. THE BASIC CONCEPT OF LEISURE AGRICULTURE**

##### **4.1 What Constitutes Leisure Agriculture**

Based on Yen's [12] study, the definition of leisure agriculture abroad is more inclined to farm tourism and rural tourism and leisure agriculture in China covers agricultural production, rural ecology and the life of farmers, and has the meaning of agriculture, countryside and life. In other words, leisure agriculture is an industry that uses the resource attraction of agriculture, rural areas and farmers and rural areas (production, ecology and life) to meet the tourism needs of tourists and local residents as well as the farmers. Therefore, Yen [12] has demonstrated leisure agriculture is a part of the leisure industry because it makes use of the resources of agriculture and rural areas to provide tourists with experience fields and meet the needs of tourists and it can also meet the leisure needs of farmers or residents when there is no tourist experience.

Moreover, leisure agriculture is a part of the tourism industry because its diversified management styles can satisfy the tourist needs of dining, accommodation, recreation, entertainment, and shopping. From simple farming experience and catering experience to complex accommodation experience and special activities and travel experience, the contents of the business projects also vary greatly. Thus, leisure agriculture is a part of the tourism industry.

However, leisure agriculture is still a family member of agriculture. The farm must carry out

production activities such as spring ploughing, summer hoeing, autumn harvesting and winter storage in accordance with the season before receiving tourists. Farmers regularly follow the farming life and rest. When the whole agricultural sector has not transformed into leisure agriculture, it is operating just according to the existing rhythm. Thus, leisure agriculture is still a family member of agriculture.

#### **4.2 The Studies on Leisure Agriculture**

The globalization trend of tourism comes from new tourist sites raised, the diversity of destinations, and the much more competitiveness of them. How to reflect the trend for leisure agriculture has become an interesting issue. Thus, study has illustrated that the determinants of place branding for leisure agricultural park contain monumental buildings and landscape, experience activities, marketing activities, and reputations [13]. In other words, the operators of leisure farming can attract visitors from place branding, which can make visitors impressed. The meanings of this paper to our study could be place branding/farm branding is important while the operators of leisure farming want to put leisure agriculture into tourism.

Moreover, Lin & Huang [14] have suggested that the operators of leisure farming should clarify the influential factor of satisfaction that tourists referred to leisure agriculture area of internet marketing. Their results show that system quality and demand quality to internet marketing satisfaction that was direct to influential by regression analysis. This means that internet marketing satisfaction was main key influential factor including "Customizable search for information", "used Easy Agritourism web", "network service", "completed of service in formations", "demand for fact reply". Therefore, its special meanings for current study could be that the operators should concern the internet satisfaction during the evaluation of leisure agriculture as an alternative to tourism.

Furthermore, study has pointed out the operators of leisure farming should update their e-learning website which is constructed to offer the users knowledge needed when raising up pets, users not only play with the pets in virtual world but they can learn knowledge with our service [15]. They found that the digital farm would infuse entertainment into user's learning. We plan to apply traceability system on every single live using RFID technology in the digital farm and

hence promise the quality of source and health of the lives. This implies the future trend of leisure agriculture should focus on the digital technology. For our study, the operators of leisure farming should know how to communicate to visitors through digital technology while they aimed to be the system member of alternative tourism.

### **5. THE EVALUATION OF LEISURE AGRICULTURE AS AN ALTERNATIVE TO TOURISM**

In terms of the evaluation of leisure agriculture as an alternative tourism, this article mainly adopts the cost and benefit evaluation method to analyze the impact of the development of leisure agriculture on the environment, economy and social culture, as follows.

#### **5.1 The Environmental Impacts**

The development of leisure agriculture has both positive and negative impacts on the environment, which are explained as follows.

First of all, in order to develop leisure agriculture, government departments usually make budgets for water and soil conservation, forest fire prevention, early warning of soil and rock flow, reinforcement of embankments in rivers and rivers, and other security and prevention projects. These projects can appropriately reduce the damage of natural disasters to the leisure agricultural environment. Secondly, the development of leisure agriculture is conducive to promoting environmental education and enabling more people to understand the environment, which has a positive impact on promoting environmental conservation. Therefore, the development of leisure agriculture is conducive to environmental protection.

Furthermore, leisure agriculture should be developed to facilitate the construction of rural transportation facilities and ensure the improvement of rural infrastructure, such as roads, transportation, water and electricity, parking lots, public toilets and other facilities. These measures have both positive and negative impacts on the environment. For example, when agricultural villages and the surrounding environment is subjected to natural disasters (such as flood, fire, debris flow, earthquake, etc.), good road traffic is conducive to emergency rescue and ecological maintenance, which is a



positive impact. For example, the development of external agricultural roads and leisure agriculture may destroy the habitats of some organisms and affect the migration paths and ecology of local animals, that is, the biodiversity will be affected. Excessive tourist visits may affect/interfere with the lives of residents and animals, etc., all of which are negative impacts of the development of leisure agriculture on the environment. In addition, improved road traffic could lead to increased poaching of rare animals and the poaching of expensive trees and herbs, with adverse impacts on ecological conservation.

Moreover, in terms of environmental bearing capacity, leisure agriculture has diversified types, including agriculture, forestry, fishery and animal husbandry. There are also a variety of experience items, including catering, accommodation, flora and fauna, various hand-making activities and so on. In addition, various types of leisure agriculture, scattered in the suburbs and the vast rural areas, can also effectively absorb the needs of urban residents for leisure tourism. Therefore, the overall carrying capacity of leisure agriculture environment is large, which can moderately share the flow of popular tourist attractions. the negative impact on the environment is small.

In addition, the main problem of developing leisure agriculture is still pollution. For example, the study indicates that the development of leisure agricultural tourism may benefit soil and water conservation, animal and plant ecological environment conservation, etc., or it may bring negative impacts such as garbage, soil pollution, water pollution, air pollution and noise pollution due to visitors [16,17]. Because the development of leisure agriculture attracts a large number of tourists, the traffic flow may affect the air quality and cause air pollution; The crowd may bring a large number of vendors, produce a large number of garbage, garbage disposal and pollution problems; When tour buses are driven into the countryside, they may produce noise. If the volume of people streaming in the countryside is not controlled, they may also produce noise. In addition, sometimes the farms use loudspeakers to drive explanations and activities, which may bring noise pollution to villagers. In addition, the development of too many hotels, entertainment centers and restaurants, if not properly treated wastewater, sewage and tourist excrement, is also prone to water pollution [9]. In addition, the development of leisure agriculture must open the way for related infrastructure construction, which may

cause permanent damage to the original environment and ecology, such as the removal or improper transplantation of millennia-old trees and the change of original ecological landscape. After a large number of tourists visit, residents, management units and tourists damage the environment and ecology, or improper use of facilities and equipment, such as improper trampling of the forest trail, tourists exceeding the load, garbage and pollution sources brought by tourists and so on [17]. Therefore, the development of leisure agriculture needs to assess its impact on the environment and ecology.

Based on the above analysis, if the feasibility of leisure agriculture as an alternative tourism is evaluated from the environmental impact, the overall benefits outweigh the disadvantages. Under the control of all kinds of pollution and negative impact, the development of leisure agriculture has become a viable alternative to tourism.

## 5.2 The Economic Impacts

Generally speaking, the development of leisure agriculture can create positive impacts such as investment, employment and consumption opportunities. For example, research has pointed out that the development of leisure agricultural business activities with the theme of tea culture will drive the construction of local software and hardware, such as passenger terminals, hotels, and shopping malls, Specialty City, Entertainment City, etc., increase the opportunities for local residents to shop, leisure and travel, opportunities for small and micro enterprises to start businesses, and increase in government revenues. The development of tea culture tourism will increase the employment opportunities of residents, and introduce more work opportunities for local residents besides tea planting, tea picking, and tea processing. For example, people with lower education levels enter leisure tea estates as gardeners, gardening maintenance, second-hand kitchens, etc. Catering staff, etc., for those with medium or high education level, they may serve as narrators, counter attendants, agricultural specialty sellers, etc., and start their own businesses to open tea set shops, tea art shops, catering snack bars, tea theme farmhouses, etc. Increase the economic income of residents through multiple choices of employment opportunities [17].

Moreover, the development of leisure agriculture may bring negative effects to local rural areas,

such as rising housing prices and so on. For example, the study points out that the development of leisure agricultural business activities with the theme of wine culture tourism can bring overall economic benefits, increase employment opportunities, stimulate consumption and other positive economic impacts to the local economy. At the same time, it may also cause negative economic impacts such as the rise of local housing prices [16,17].

In summary, the lack of business activities in rural areas, compared with urban location and resources, economic development conditions are more adverse. If leisure agriculture can be developed in rural areas as an alternative to tourism, it will promote local economic development, and the positive impact is greater than the negative impact. Therefore, it is feasible to develop leisure agriculture as an alternative to tourism.

### 5.3 The Social and Cultural Impacts

In addition to environmental and social impacts, the development of leisure agriculture also has social and cultural impacts. For example, in order to develop leisure agriculture, roads and traffic will be improved and access to the county seat will be safer and more convenient, which will contribute positively to the daily life of the village in purchasing, schooling, medical treatment and employment [12]. Moreover, by developing leisure agriculture, shaping village characteristics and finding attractive cultural activities, villagers and government departments can be moved, which has positive benefits for the inheritance and preservation of culture. In addition, when the village economic activities become more and more popular and there are more job opportunities in leisure agriculture, the villagers will also be attracted to go back home. When the young people in the village are willing to stay in the countryside and the young people from other places are willing to return home, the preservation of local culture will form a positive cycle. Therefore, the development of leisure agriculture and rural tourism will contribute to the inheritance and preservation of local culture [17].

However, the development of leisure agriculture may also bring negative social and cultural impact. For example, the development of leisure agriculture in poor rural areas will attract a large number of tourists, which may bring security problems to local residents. For example, tourists may break into residents' homes at will, disturb residents' lunch breaks and interfere with their daily life. Secondly, too many tourists or unruly

tourists, parking at will, loud noise will also cause inconvenience to residents. Secondly, too many tourists or unruly tourists, parking at will, loud noise will also cause inconvenience to residents. In addition, with their superior economic ability, urban tourists wearing gold and silver may bring improper demonstration to children living in poor rural areas. Their views on money and values may also influence the values of residents in poor rural areas. Therefore, the development of leisure agriculture is indeed a good tool for targeted poverty alleviation, but it still needs to assess its impact on social culture and prepare supporting measures [18].

In conclusion, if the rural leisure agriculture can be properly planned, under the control of the negative social and cultural influence of the development of leisure agriculture on rural areas, the development of leisure agriculture becomes a feasible alternative to tourism.

## 6. CONCLUSION

Alternative tourism is not a new industries or new concept, the concept of alternative tourism mainly through different types of tourism development mode (activities), such as agricultural tourism, rural tourism, industry tourism, cultural tourism, etc., to reduce the impact of tourism development on the ecological environment, make the tourism industry in the direction of the sustainable development. Secondly, alternative tourism has many advantages, such as economic benefits, dispersed flow of people, urban-rural communication and other economic, environmental and social advantages, which are worthy of reference by tourism management departments. In addition, the development of alternative tourism has its necessity, because the alternative tourism can solve the supply side of tourism resources, capacity, product homogeneity, and the price is not problem such as chaos, also can deal with demand side travel consumer preferences change, and level of science and technology communication infrastructure complete support, such as the feasibility of developing alternative tourism is higher. Finally, from the evaluation of the development of leisure agriculture as an alternative to tourism, it is found that the development of leisure agriculture will have positive and negative impacts on the rural environment, economy and social culture. In general, the positive benefits outweigh the negative ones. Therefore, leisure agriculture is

one of the feasible tools to achieve the purpose of developing alternative tourism, and the development of leisure agriculture is indeed one of the feasible alternatives to tourism.

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### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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