Regional planning of modern agricultural tourism base based on rural culture
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ABSTRACT
In order to study the planning effects of modern agricultural tourism bases, this paper combines ecological agriculture to carry out regional planning innovations for agricultural tourism bases based on the analysis of traditional rural cultural tourism. Moreover, this paper analyses the current situation of regional planning of agricultural tourism base in China through comparative analysis, summarises its existing problems and divides the functional areas based on the current regional planning needs of agricultural tourism base. In addition, this paper combines the needs of rural cultural dissemination and agricultural ecological economic theory to make recommendations for regional planning of agricultural tourism bases. In terms of theoretical implementation, this paper analyses planning through case analysis and evaluates planning effects. Through the analysis of the agricultural tourism base planning, it is found that the rural culture needs to be combined with the agricultural investment of the agricultural tourism base. Finally, from the research results, it can be seen that the regional planning of modern agricultural tourism base based on rural culture has certain feasibility.

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Introduction
The country has incomparable value in the research of humanities and natural scenery. It is based on this point that when tourists experience rural life, they can not only increase their work experience and life knowledge but also obtain emotional and psychological satisfaction. Emotion is commonly characterised in psychology as a complicated emotional condition that causes physiological changes which affect thoughts and actions. Emotionality is linked to a variety of personality characteristics such as temper, attitude, humour and motivation. The importance of emotions in tourism experiences cannot be overstated. In today’s tourist literature, theoretical underpinnings of emotion get a lot of attention. Negative emotions are overrepresented on a differentiated emotive scale that focuses on facial expressions of emotion. Moreover, country stories are attractive to people living in cities. At the same time, some rural houses and plant and animal resources provide researchers with the most direct research materials. In this way, rural tourism has the effect of knowledge learning. In addition, the investigation of the surrounding environment based on the countryside was also a major feature of rural tourism in the past (Adama et al. 2018). Local communities are encouraged to recover and conserve their customs, crafts, traditional festivals, infrastructure, as well as other distinctive customs through rural tourism. Creating new talents for the tourism and hotel business as a whole necessitates the development of specific abilities to cater to tourists. It comprises of designed tourist encounters that are connected properly with rural environment and created for the community’s advantage by regional community associations.

With the development of the times, China’s new agricultural development system uses the advantages of the Internet to promote the continuous emergence of a series of new industries such as leisure and tourism, and make the rural economic system burst into new vitality. According to agricultural data, the proportion of agriculture-related industries developed with the aid of the Internet economic system accounted for 14% of the newly added value of agriculture, of which the rural tourism industry accounted for 8.9%. Farmers’ economic motivations will be strengthened by the rise of the manufacturing industries, and that they will probably change from food crops to cash crops. They would produce for the marketplace, which will result in the growth of some linked processing businesses as well. The new agricultural economic system has brought new development opportunities. Therefore, reasonable
planning of leisure agriculture and rural tourism is an inevitable requirement for promoting the adjustment of agricultural structure and the development of high-efficiency agriculture at this stage. The rapid growth of leisure agriculture and rural tourism has made it a powerful icon of post-modern agriculture. Leisure agriculture must respond to modern agriculture’s urban leisure travel needs, which means expanding agricultural output, integrating agricultural production focused on touring, recreation, extension service, marketing, catering, and so on. Moreover, it is the need to promote the development of the agricultural industry and the core competitiveness, it is also the need to promote the improvement of modern agricultural science and technology, and it is the development trend of building a modern agricultural system in the new era of our country. Although my country’s leisure agriculture started late, it has developed rapidly in recent years, showing strong vitality and huge development potential, and has cultivated a large number of leisure enterprises with great development potential, obvious brand advantages and strong driving force. However, from the overall situation, there are still a series of development malpractices that lead to limited development and weak survivability. For example, the overall planning and design are not comprehensive, the infrastructure is not perfect, the management level of the operators needs to be improved, the quality of the employees is not high, and the content lacks creative characteristics. These problems make the development of leisure agriculture and rural tourism unable to achieve the original goals and achieve desired results. The fundamental reason is that we did not realise the importance of early planning research (Adat et al. 2017).

Leisure agriculture is a sunrise industry that helps to promote the adjustment of agricultural industry structure, broaden agricultural functions, promote farmers’ income, increase employment, solve the ‘three rural problems’, and develop modern agriculture. The specific performance is in the following aspects. The first is to broaden agricultural functions and promote industrial restructuring. Leisure agriculture is a new type of industry that integrates the primary, secondary and tertiary industries. It conforms to the law of market economy development and has great market potential. Moreover, it expands agricultural production to agricultural products processing, provision of leisure services, ecological protection, tourism and leisure, popular science education, cultural inheritance and other functions, thereby promoting the development of related industries. The second is to promote farmers’ income generation and increase employment. Traditional agriculture has strong seasonal characteristics, and farmers relying on agriculture to generate income have an obvious time limit. However, the development of leisure agriculture can extend the agricultural industry chain, transfer surplus rural labour, and increase income-generating space. The third is to promote the coordinated development of urban and rural areas. Leisure agriculture is based on agriculture and it is in the countryside to give back to farmers. Moreover, it uses urban residents as the main source of tourists, which can promote urban and rural coordination, exchange urban and rural needs and resources, allow farmers to improve themselves in development, narrow the urban-rural gap and accelerate the process of urban-rural integration. The fourth is to improve the living environment and promote the construction of a new socialist countryside. The development of leisure agriculture can effectively develop agricultural resources, promote the construction of rural infrastructure and the development of cultural industries, improve the rural living environment, cultivate a group of new professional farmers with strong cultural, technical and management capabilities, and promote the improvement of farmers’ living standards. The fifth is to enrich my country’s tourism resource system. According to incomplete statistics, 70% of China’s tourism resources are concentrated in rural areas, with abundant agricultural resources, a good ecological environment and huge development potential. Therefore, vigorously developing leisure agriculture can stimulate the emergence of new types of leisure consumption in China and meet the new consumption needs of residents (Alola and Uzuner 2020).

The development of agricultural tourism resources can and should be diversified and diversified. China has fully affirmed the cultural significance of rural areas in terms of leisure tourism and knowledge transfer in the central document. Since 2010, China has designated May 19th every year as China Tourism Day. This regulation encourages more people to participate in the practice at the grassroots level in rural areas, and at the same time is conducive to solving the ‘three rural’ issues, fighting poverty alleviation and aligning national policies. For China to be good, the countryside must be good, and for the countryside to be strong, agriculture must be strong. The new measures of strengthening industrial capital investment, planning guidance and subsidising with rewards have also been reflected in the documents of the Chinese central government. At the same time, the leisure value and tourism value of agriculture have been exploited to the utmost extent, and it is obvious that the rural economy has been developed by leaps and bounds.

Based on the above analysis, this paper analyses the modern agricultural tourism of rural culture on the basis of rural cultural tourism, and constructs the
agricultural tourism base with the method of case analysis. The following section, survey works are included on residents and rural tourism impacts that help to plan modern agricultural tourism. Next, Functional Analysis and Business Model for leisure agriculture and rural tourism are carried out to analyse the deficiencies and strategies for the sustainable development. Followed by, analyses of the planning of an agricultural tourism base is done and ends up with the conclusion section.

Related work
Alphey and Bonsall (2018) believed that the value of leisure is its foundation, and local residents meet the needs of tourists in terms of clothing, food, housing, transportation, etc., so that tourists can get a good experience in the traditional rural life, thereby creating wealth for local residents. Prominent pastoral scenery and simple folk customs are the fundamental factors for rural tourism to attract many tourists. This is the interpretation of rural tourism made by the World Environmental Tourism Organization, which deeply analyses the internal reasons why rural tourism has become a trend. Corder and Irilbeck (2018) located rural tourism in rural areas, and pointed out that this type of tourism has the objective characteristics of wide area, small scale and short period. Douthwaite et al. (2017) believed that multi-angle tourism should be applied in rural tourism, which can be reflected in the abundance of tourism activities, such as mountain climbing, climbing, hiking, cycling and so on. In addition, based on the special environment of rural life, rural tourism can also develop new forms of collecting, fishing, and planting trees that are rich in folk customs and customs to enhance the life experience of tourists.

Duan et al. (2019) believed that rural tourism refers to the way that farmers provide accommodation for tourists and engage in various entertainment and leisure activities in representative rural environments such as farms and pastures. Easterly and Myers (2017) has a more in-depth study of rural tourism, and re-explains rural tourism based on the activity venue, activity scale, cultural connotation and characteristics of rural tourism. Ebert et al. (2019) analysed rural tourism from a variety of perspectives, and formed a variety of understandings, which enriches the connotation of rural tourism while also extending its breadth and depth.

In the context of the disintegration of the socialist system in Central and Southeast Europe, Fitz-Koch et al. (2018) proposed the impact of the incident on rural tourism before and after the incident, and believed that through government intervention and private joint operation, it is beneficial to promote the development of rural tourism. Flachs and Richards (2018) mainly studied how rural tourism shifts from coastal areas to inland areas from the perspective of location transfer. Moreover, it further pointed out that due to insufficient infrastructure in rural areas and lack of government financial support, rural tourism in many areas is facing challenges. Kansanga et al. (2019) investigated the development history of farms and pointed out the development trend of rural tourism from small-scale operation, individual guest reception, development to later scale and groupization.

Krčmářová (2020) found that rural tourism has the characteristics of small scale, low income, short travel time and small economic impact. After summarising the statistical tourism economic data table, Lee and Kwon (2017) believed that rural tourism can promote the development of the British economy. Lintern et al. (2020) believed that rural tourism could make an important contribution to the local economy. At present, most scholars also agree with this view. In summary, most foreign scholars agree that the development of rural tourism has an important role in promoting the rural economy.

Marcis et al. (2019) believed that the development of rural tourism is an important measure to reduce the gap between urban and rural areas, build a harmonious society, and promote the diversified development of my country’s tourism industry. Pointed out that the development of rural tourism can help local farmers broaden their horizons, give full play to their strengths and at the same time increase income. Park and Oh (2018) proposed that the development of rural tourism promoted the development of rural economy, increased villagers’ income, strengthened the construction of spiritual civilisation, improved infrastructure conditions and promoted social harmony. Roberts and Robinson (2018) believed that rural tourism is an important strategy for building a new socialist countryside, as well as a new way to optimise the rural industrial structure, develop rural tourism resources and increase farmers’ income.

Tong et al. (2019) analysed from a scientific point of view that rural tourism operators lack control of the market and have a weak sense of operation and management. Moreover, its infrastructure construction is not complete, rural tourism projects and products are relatively single, and the breadth and depth of development are not enough. Therefore, blind development will cause damage to the rural environment and cultural relics. Turner et al. (2019) found that suburban rural tourism is facing crises such as a decline in the attractiveness of rural tourism and a shortened life cycle. Moreover, it proposed to standardise suburban land use
planning, suburban tourism development planning, and landscape ecological isolation mechanism to protect rural tourism resources and promote the sustainable development of rural tourism. Zamani and Mohammadi (2018) pointed out that the development model of localisation, branding, and standardised management should be achieved in rural tourism planning.

**Functional analysis and business model**

Leisure agriculture and rural tourism are multi-functional, high-tech, highly industrialised and market-oriented ecological agricultural systems, and they take sustainable development as the core, embody the integration of urban and rural areas, and serve agriculture and tourism. Moreover, it has a certain ecological spatial pattern between rural areas, urban and rural areas, industries, and functional radiation areas. Seedling establishment, biological relationships, and mortality are examples of ecosystem functions that produce footprints on species spatial configuration which can be detected via spatial point-pattern analyses. It interprets pattern-process linkages and describes biological interaction (Chang and Chang 2015). At the same time, it not only provides material products to the society but also with its unique pastoral scenery and folk customs, it makes people feel the fun of returning to the original and returning to nature, and achieves the effect of experiencing life, increasing knowledge and cultivating sentiment. In addition, in the development, it adheres to the principle of equal emphasis on development and protection, carries out reasonable development, uses resources to integrate ecology, production and scientific research, and the market, so that natural landscape, human landscape and agricultural garden landscape can be harmonious and unified, and the ecological environment is maintained in good condition. Tourism places a huge strain on local land use, including soil degradation, contamination, habitat destruction and growing pressure on endangered animals. These consequences have the potential to deplete the environmental resources that tourism relies on. Tourist attractions created by people are known as human resources, whereas natural resources, such as beaches and lakes, are known as physical resources. The agricultural process of economic connections is a key component of tourism’s potential benefit to the well-being of agricultural people in developing countries. Agricultural sector provides not only materials for food intake inside the tourism sector, as well as the backdrop for rural attractions.

The pace of life and work of contemporary people is fast, so it is generally necessary to relax through leisure and entertainment. Leisure agriculture and rural tourism can provide a beautiful and natural environment for tourists who come to travel. At the same time, by picking, fishing, visiting, experiencing and tasting pollution-free agricultural and sideline products, visitors can experience the fun of farming, return to nature and experience the authentic farming customs.

Moreover, it provides people with a place to understand nature, understand agricultural knowledge, understand the growth process of animals and plants, participate in agricultural production, experience rural life and understand rural culture, so as to achieve the purpose of education and popularisation of agricultural knowledge.

The demonstration function is to improve the economic level by developing high-tech agriculture in terms of technology development, high-tech equipment research and development, and talent training through leisure agriculture and rural tourism. Demonstration farms are used to educate different farming techniques and technology, as well as to display new or enhanced crops. They additionally serve as a place to experiment with new methods and compare them to old ones. They come in many shapes and sizes, from modest to large farms (Manogaran et al. 2021). The scope of the exhibition is from point to line and surface, and then promoted throughout the country to play a demonstrative and leading role. In addition, the development of leisure agriculture and rural tourism can radiate the achievements of urban economic, political, and cultural development to the vast rural areas, which plays an important role in improving the quality of farmers, driving farmers’ income, improving their living standards, narrowing the gap between rich and poor, enhancing cultural exchanges between urban and rural residents, and promoting coordinated and common development of urban and rural areas.

Leisure agriculture and rural tourism promote the development and promotion of rural culture by showing tourists the unique rural culture, folk culture and life culture of rural areas, and finally realise the cultural exchange and common development of urban and rural areas. Folk culture is frequently a product of historical isolation, whereas living culture is frequently the product of cultural dispersion. Folk system is described by homogeneity, or similarity, and is typically maintained in remote areas independent of the effect of pop culture. The manufacturing of meals, textiles and natural resources are most vital socioeconomic operations in rural cultural context, that has a low population-to-open-land ratio. A culture of life is a way of life founded on the conviction that individual life is
precious at all phases of development, from earliest conception to demolition.

As a new form of tourism, rural tourism is also loved by more and more people. From the perspective of spatial layout, it has changed from the original sporadic distribution to the cluster distribution, expanding from the suburbs of large and medium-sized cities and the surrounding areas of scenic spots to more suitable development areas. Sporadic defines the dispersion of everything in time or space which is not regular enough just to fill a region or period, and occurs in solitary outburst or dispersed occurrences. Moreover, leisure agriculture and rural tourism, as a new mode of operation, attract more and more people to participate in it, and become a new engine to promote the development of the integration of the three industries in rural areas and a new bright spot in the development of modern agriculture.

The enterprise type has the characteristics of professional operation, has a complete modern operation and management system, and has a clear division of labour between managers and employees, and each performs its duties and does its best. Moreover, it operates flexibly in accordance with the laws of market economic development, makes independent decisions, allocates resources rationally, assumes responsibility for its own profits and losses, and maximises its benefits. The advantage of this model is obviously that it can independently pay attention to national policies and is good at operating independently based on market orientation. The disadvantages are that the operators are very arbitrary and pay attention to returns, and the awareness of environmental protection needs to be strengthened. Therefore, special attention must be paid to strengthening and improving the quality of managers to obtain sustainable and healthy development.

The ‘Park + Enterprise’ type is led by the government and participates in operations in the form of a management committee. The government improves infrastructure construction, provides complete supporting services, attracts agricultural enterprises with good industrial development, high technology content, and good corporate benefits through investment promotion, and provides corresponding preferential policies such as taxation and land to enhance the development of the entire park. Companies staying in the park lease land in the park, operate independently, and have independent accounting. The management committee does not directly participate in the operation of the company. The advantage of this model is that the infrastructure and supporting services are complete and guaranteed. Moreover, enterprise management is scientific and standardised, with high technological content, and has good economic benefits. In addition, the participation of an advanced management team in the operation can generate demonstration and drive benefits, and a large number of enterprises have settled in to provide more jobs. Enterprises can contribute significantly to the tourism sector by understanding operational and technological procedures in tourism companies, appropriate expertise in business and economics administration, skills of generating integral tourism products and services of locations, and language abilities. As a result, they are critical for the development of visitor attractions as specialists in tourism lodging facilities and complementing tourism attractions. At the same time, through technical training for farmers, the problem of surplus labour in surrounding villages can be solved, farmers’ income can be increased, the quality of the people and the level of farmers’ scientific planting technology can be improved. The presence of a large number of enterprises in the park has its own characteristics, and the formation of a scale can increase the diversity of the park’s available scenic spots, and it has a stronger attraction through mutual cooperation. The disadvantage is that the development of sightseeing and tourism functions is still insufficient. This model enterprise accepts the unified management of the park, the innovation ability needs to be strengthened, and the accommodation and catering reception ability needs to be improved. As an organic whole, the park is highly independent, and its ability to interact with surrounding scenic spots needs to be further improved.

The joint type means that farmers attract foreign tourists and obtain tourism income by digging and displaying local unique folk culture, architectural features, and folk skills. Moreover, the farmers take the village as the unit and have an overall image for external publicity. Farmers in this mode achieve the goal of common prosperity by sharing tourist resources with each other, cooperating in groups, and joint operations. The advantages of this model are strong regionality and outstanding features. However, the disadvantage is that most of the individual farmer households are small in scale due to limited funds. The ability of farmers to self-manage and resist risks needs to be strengthened, the level of reception and service needs to be improved, and farmers need to receive training to obtain professional knowledge. In the development process, it is necessary to strengthen the mining, protection and inheritance of the overall culture to prevent over-commercialisation.

Self-employed households are the model with the largest scale and the largest proportion in the development of leisure agriculture and rural tourism in China. Employees who work in a household work and
perform all activities at their employer’s home. A home employee has work determined by an owner, while an independent contractor has work defined by employee, according to the Internal Revenue Service. Operators mostly operate independently on their own fields or houses, and provide tourists with catering, accommodation, picking, fishing and other leisure and entertainment activities to attract tourists and develop leisure agriculture and rural tourism. The advantage is that self-employment is the most flexible, strong ability to respond to the market, and strong ability to drive demonstration. The disadvantage is that due to the limitation of regional funds, the scale of development is limited and the reproducibility is strong.

The compound leisure agricultural park is a comprehensive agricultural park that relies on agriculture and integrates more than three related industries such as agricultural product processing, service industry, tourism, creative development, technology research and development, cold storage transportation, leisure and entertainment, popular science education, product display. The industrial function of this model is diverse, and it takes into account the display of agricultural culture, and extends the agricultural industry chain to the greatest extent. This model is advanced in terms of development concepts and development trends of modern agriculture, and is worthy of promotion.

Analysis of the deficiencies and strategies in the development

Leisure agriculture and rural tourism, as new carriers for exploring agricultural modernisation, have achieved remarkable results, but due to lack of experience, there are unavoidable deficiencies in development. Therefore, it is necessary to summarise these shortcomings to promote the healthy development of leisure agriculture and rural tourism in the future.

At present, most of the operators of leisure agriculture in our country are farmers, and the mode of operation is basically based on independent business. Moreover, operators often only focus on immediate benefits, and often take one step at a time in project planning and design, so they lack overall design and scientific demonstration. In addition, the target positioning is not clear, the layout is unreasonable, and there are some limitations and blindness in the process of project implementation and construction. At present, some leisure agricultural operators only rely on enthusiasm to operate. You should analyse the possible and economic appeal of each group when developing your targeted and position plan, and then build thorough positioning strategy for every group, including a customised marketing strategy based on prior knowledge of that portion (Balamurugan et al. 2020).

Secondly, the project design is similar and lacks its own characteristics. The development of the park has the characteristics of small scale, imperfect infrastructure, low grade, incomplete functions, simple and simple facilities, and not strong interest and experience. Moreover, the park lacks the support of local culture, farming culture, historical culture, folk culture and other connotations with unique local characteristics, and the brand awareness is not strong enough, the popularity is not enough, and the attraction is not enough.

At present, various systems and mechanisms in the management of leisure agriculture and rural tourism are not sound. During the implementation of the policy, the relevant government departments lack mutual cooperation, and the management is unable to coordinate and uniformly arrange deployment. Moreover, due to the lack of unified management norms and industry standards, unauthorised occupation of cultivated land and basic farmland and development of leisure agriculture and rural tourism at the expense of the ecological environment have occurred from time to time.

In addition, leisure agriculture practitioners are the showcase of leisure agriculture. However, most of them have not received professional training and lack relevant professional knowledge and management level. On the whole, their professional quality is still low. The service level of employees has become a bottleneck restricting the development of leisure agriculture. In terms of capital, if the project wants to achieve long-term development, it must be supported by sufficient funds. The operators lack their own funds, the financing channels are not broad enough, and the development is easily restricted. However, relying solely on the support of the agriculture and tourism sectors is far from enough. At the same time, most local governments have not set up special support funds, and there are no clear policies and regulations on land transfer, social security, tax incentives, loan discounts, business management, food hygiene and safety guarantees.

Scientific planning, highlighting industrial characteristics. One is to insist on planning first. In planning, we adhere to the principle of ‘adjusting measures to local conditions, rational layout, and highlighting characteristics’, and implement the principle of ‘three combinations’. That is: the two measures of development and protection are combined with each other, the short-term planning and the long-term planning are combined, and the ecological and economic benefits
are combined. Through the analysis and field investigation of the regional advantages of the region, reasonable development ideas and directions suitable for the regional characteristics are formulated, and the advantageous industries are determined. The second is to highlight the constraints of traditional culture in the process of industrial development, focusing on exploring and developing the farming culture, folk customs, and farming features of rural agriculture with local characteristics. The third is to develop resources without sacrificing the environment in the process of agricultural resource development. Focusing on strengthening the awareness of the original ecological environment protection. The fourth is to improve the ability to innovate, learn to cooperate closely with various professional institutions, use the latest scientific research results of scientific research institutions to create new innovative products and develop new unique leisure projects.

Strengthen management and enhance service awareness. First, it is necessary to establish and improve various management systems, give full play to the subjective initiative of the relevant functional departments of the government, clarify the division of responsibilities, strengthen the awareness of coordinated management and strengthen the construction of service platforms. Second, formulate unified industry management standards, establish various rules and regulations, and focus on standardised management in terms of environmental sanitation protection, personnel certification, market price setting and reception service levels. Third, the government should increase the coverage of agricultural training, provide professional training for leisure agriculture practitioners by linking up business entities with professional talents, encourage leisure agriculture practitioners to go out to study and strive to improve their own professional quality and management level, and enhance their business capabilities. Personal innovation consciousness. Fourth, in conjunction with my country’s existing industry norms and systems, regular evaluations of eligible enterprises and individuals are carried out, and those who have evaluated outstanding achievements are encouraged and supported.

Financial innovation and improvement of infrastructure. Optimise financial services innovate investment methods and encourage diversification of investment methods. First, government departments need to establish a special guiding fund platform to provide discount services for leisure agricultural enterprises, and focus on the ‘seed’ role of government financial funds. Actively promote the integration of banks and enterprises, encourage banks and various credit institutions to give full play to their advantages, continuously explore and innovate new paths for financial support and development, and support the development of leisure agriculture. At the same time, it can also attract flexible investment of social capital, develop with various factors advantages and investment methods, and form a community of interests through financial interaction, forming a win-win interest chain for all parties. To improve the infrastructure, the government strengthens guidance, does a good job of preferential policies for infrastructure construction, perfects the hydropower, roads, transportation and electronic communication facilities in the park, and gives preferential policies to ensure the standardised and healthy development of leisure agriculture.

Strengthen marketing and expand publicity. In order to expand the sustainable and healthy development of the leisure agriculture market, efforts should be made in publicity and innovative marketing methods. Make full use of all kinds of new media for publicity. Encourage copywriting innovation, attract various groups, carefully organise various agricultural festivals, take multiple measures and combine local tourism resources to carry out various forms of publicity and promotion activities. The various scenic spots adopt methods such as ‘strong alliance’ and ‘grouping’ to form an industrial scale and attract more tourists.

Regional planning analysis
This article analyses the planning of an agricultural tourism base. The rural culture needs to be combined with the agricultural investment of the agricultural tourism base. Therefore, the rural culture in the agricultural tourism base area needs to be analysed first. The analysis diagram is shown in Figure 1.

The base builds a safe, efficient and ecological slow traffic network to enable tourists to enjoy a slow life and experience the fun of nature and mountains. Transportation is a representation of the average complicated network system that is accessible and dynamic. Expressways are a type of sophisticated transport system, and interstate services function as infrastructural nodes within the network. Thus, their development has a considerable impact on tourist development and utilisation. The introduction of new modes of transportation, such as commercial aviation and high-speed rail, altered the availability of tourist locations. The planning content of the slow moving system is as follows: (1) The streamline of bicycle cycling surrounds the periphery of the main activity area of the park, and a cycling route with a length of about 1.5 km is planned. It has a width of 3.5 m and is paved with red permeable concrete. It continuously and completely surrounds the southern part of
the farm and is connected to the central area. Moreover, it also functions as a temporary motor vehicle lane, and provides convenience for manor management, fire protection, and commercial construction services. (2) The service radius of the bicycle station is 1000 m, which is much larger than the distance between the north and the south of the site. Therefore, the station is set at the beginning and the end of the cycling route, and management stations are arranged at the same time. (3) Pedestrian circulation takes the main public activity space in the manor as a node and connects functional areas as a basis to plan a complete and systematic pedestrian circulation. At the same time, the isolation zone between different vegetations is used to form a characteristic viewing path. (4) The activity area composed of the main buildings and public space in the pedestrian node manor is also the main stay area for tourists. By summarising and categorising the needs of users, a demand model for the riding service platform is established as shown in Figure 2.

The base is equipped with a convenient and effective motor vehicle flow line to meet the needs of tourists for driving and crop management in the mountain village. Terrace farming, also known as step farming, is popular on hill slopes. It is described as agriculture wherein the sides of hills and mountains are carved into steps to provide ample area for the farmers to cultivate a wide range of crops. The contents of the motor vehicle system planning are as follows: (1) The streamline of tourists’ motor vehicles. Taking into account the driving needs of tourists, a 7-m-wide motor vehicle road at the entrance of the manor is set up near the entrance, which is convenient for tourists to drive into the manor and directly connects to the parking lot on the south side of the featured hotel. (2) The streamline of agricultural machinery. Since the east side of the site is a large-scale planting area and a large-scale breeding area, there is a greater daily demand for agricultural machinery, so a relatively complete agricultural machinery streamline system is planned on the east side of the manor. The streamline runs through the large-scale planting area and large-scale breeding area on the east side, which is convenient for farming and livestock transportation. In addition, the streamline also connects most of the surrounding areas of the manor to form a complete agricultural machinery streamline system. (3) Agricultural machinery node. The agricultural machinery nodes are mainly used for routine maintenance and storage. They are mainly located in the planting area and various

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**Figure 1.** Analysis diagram of tourism resources.

**Figure 2.** Cycling service platform demand model.
management houses in the breeding area. Some nodes are located in the open space of the planting area, which is convenient for temporary parking. (1) The first-level rainwater collection corridor—the municipal roads around the manor, which organises road rainwater collection and discharge through rainwater collection on both sides of the road and the municipal rainwater pipe network. (2) First-level rainwater collection point—a small rainwater garden is arranged along the main road, and rainwater is collected and discharged into the planting area. (3) Secondary rainwater collection corridor—The interior of the manor consists of green spaces, permeable pavements, squares, parking lots and building roofs and other different substrates that gather nearby through different rainwater collection paths. (4) Secondary rainwater collection point—the collected rainwater is collected into a small rainwater garden or planting area for rainwater infiltration and pollutant filtration, and the excess water is discharged into the comprehensive water use area to form a complete rainwater collection and discharge system.

The intelligent parking cloud information management platform integrates advanced information technologies such as mobile Internet, cloud computing, big data and intelligent science. For various parking lots, it can achieve multi-level, less coupling, high reliability, low risk, and cross-regional centralised monitoring and management.. It can not only provide services such as remote unmanned supervision, statistical analysis and classification, intelligent decision support and big data display for government and enterprise operation and maintenance departments, but also provide multi-region parking real-time information services to the public. Surface vessels that are unmanned but monitored from afar can be extremely useful in search and recovery circumstances comparable to those who are in which robotic arms are employed on land. The capacity of a user to appraise a position in terms of surroundings is referred to as spatial awareness. The smart parking integrated information management cloud platform includes smart parking management platform, smart parking APP and parking lot/street parking management system. Figure 3 shows the system architecture of the smart parking cloud information management platform.

Sewage is held in a through during primary treatment, wherein sediments such as sludge fall to the base and oils and lightweight materials make it to the top. After removing those levels, the residual liquid could be sent to treatment processes. Sludge digestion is a method that treats sewage sludge separately. The general goal of sewage treatment is to generate a wastewater which can be released to the ecosystem with little water contamination, or an effluent which can be recycled in a practical way. This is accomplished by filtering the sewage for pollutants. It is a type of garbage disposal. On this basis, the sewage treatment system of the entire agricultural tourism base area is constructed, as shown in Figure 4.

In the planning area of the agricultural tourism base, some common poultry is also raised in captivity, mainly raising cattle, sheep, native chickens, black-bone chickens, meat rabbits, pigs, etc. on a large scale. There are three main forms of ecological farming production mode. (1) Planting-breeding combined type. For example, in the form of a combination of planting grain and grass and raising chickens, grain and grass are fed to chickens, and chicken manure is used for grain and grass fertilisation, thereby forming an ecological cycle of more grains, more chickens, more fats, and more fats and more foods. (2) Planting-raising-biogas combined type. For example, the planted fodder crops are used to feed livestock and poultry, the livestock and poultry manure is treated harmlessly to form biogas, and the biogas residue is further returned to the field or used as livestock and poultry feed. (3) Planting-raising-processing combined type. For example, growing grain in the field-making grain wine-feeding vinasse to pigs-pig manure for further comprehensive utilisation. The ecological cycle mode of ecological breeding basically makes the best use of the material, which not only reduces the pollution of waste water and faeces to the environment but also can reuse the planting industry to form a new feed resource and reduce the cost of feed. At the same time, it ensures the simultaneous development of economic, ecological and social benefits, and maximises benefits. Biogas further helps to reduce methane leaks from dumps and sewage lagoon that might otherwise leak. By turning this gas into CO₂, which really is up to 34 times less powerful as a greenhouse gas, using this as a fuel significantly reduces its climatic impact. In order to improve the system ecology, after constructing the system, a biogas ecosystem is also constructed, as shown in Figure 5 below.

On the basis of the above analysis, this article also proposes the following suggestions for the regional planning of agricultural tourism bases:

How to stand out among the many tourist villages is a question worthy of discussion. Villages should have their own unique advantages in tourism resources, and have distinct bright spots. In one sentence, ‘people have nothing but I have, and people have my advantage’. This is the ‘spring’ for the survival and development of tourist villages, and is to get tourists. An important guarantee for recognition. To this end, relying on innate natural advantages, quickly build brand effects,
Conduct orderly development and utilisation of tourism products, and improve various supporting facilities. Promptly formulate and issue corresponding encouraging policies to develop the rural tourism industry to mobilise the subjective initiative of residents, organise and coordinate the development of the tourism industry, promote the advantages of the local tourism industry through multiple channels and achieve overall urban and rural development.

In order to promote the healthy development and effective planning of the village, it is necessary to invest heavily in management and construction. Form a management and construction system that relies on tourism to plan, increase budget expenditures while ensuring financial support for construction management, supervise the authority at all levels of rural construction management, and improve the approval mechanism, promote reform and innovation, and improve planning and construction management. Efficiency, clear rights and responsibilities, and clear property rights make management and planning work sustainable, efficient, orderly, and long-term, ensuring

**Figure 3.** Architecture of smart parking cloud information management platform.
In order to promote the healthy development and effective planning of the village, it is necessary to invest heavily in management and construction. Form a management and construction system that relies on tourism to plan, increase budget expenditures while ensuring financial support for construction management, supervise the authority at all levels of rural construction management, and improve the approval mechanism, promote reform and innovation, and improve planning and construction management. Efficiency, clear rights and responsibilities, and clear property rights make management and planning work sustainable, efficient, orderly, and long-term, ensuring better and better development of tourism development and planning and construction.

This system is a complete solution for the ‘information sharing’ of the tourism management information system. The hardware and software environments involved in the implementation mainly include application server, including data services, function analysis services and website servers, and database server, which mainly integrates management of various Similar to spatial data, attribute data and thematic information resources; GIS server side, providing spatial data editing, processing and publishing functions. The architecture of the tourism information system is shown in Figure 6, where the data layer manages various data resources; the service layer
manages and publishes Service collection; the application layer implements business processes by calling data services and functional analysis services on the GIS server, and finally the browser terminal visualises the processing results. The application layer is made up of the components that are unique to this program. The UI, back-end functionality for the UI, and any interfaces between both the application and the business logic level are all included. In a perfect scenario, this level should not include any business domain logic. GIS Server seems to be a back-end web server component in making your geographic data accessible to people in your business and, potentially, everyone with an internet access. This one is done using GIS capabilities, that enable a server computer to accept and interpret requests for data delivered by the other systems.

The evaluation and analysis of the rural tourism planning system and smart tourism system constructed in this paper are shown in Table 1 and Figure 7 below:

![Application Center Diagram]

![Service layer Diagram]

![Data layer Diagram]

**Figure 6.** A modern agricultural tourism system based on rural culture.

| Number | Planning effect | Tourism effect | Planning effect | Tourism effect |
|--------|-----------------|----------------|----------------|----------------|
| 1      | 81.1            | 87.1           | 84.3           | 84.4           |
| 2      | 84.5            | 86.2           | 84.6           | 86.1           |
| 3      | 85.7            | 81.4           | 89.7           | 80.7           |
| 4      | 82.7            | 87.8           | 81.8           | 87.1           |
| 5      | 86.9            | 92.8           | 86.2           | 81.9           |
| 6      | 83.5            | 84.8           | 82.3           | 90.9           |
| 7      | 86.2            | 81.5           | 83.1           | 86.5           |
| 8      | 86.3            | 89.9           | 82.3           | 91.9           |
| 9      | 90.5            | 89.4           | 85.6           | 86.2           |
| 10     | 86.7            | 91.9           | 87.5           | 91.2           |
| 11     | 89.7            | 91.6           | 81.2           | 90.8           |
| 12     | 89.6            | 87.9           | 87.7           | 83.9           |
| 13     | 90.4            | 90.6           | 81.8           | 81.1           |
| 14     | 81.9            | 90.0           | 84.6           | 81.8           |
| 15     | 81.3            | 84.0           | 82.4           | 88.8           |
| 16     | 84.7            | 91.1           | 83.5           | 89.6           |
| 17     | 87.1            | 90.1           | 85.6           | 87.4           |
| 18     | 89.5            | 85.9           | 84.3           | 84.3           |
| 19     | 89.3            | 81.2           | 84.9           | 86.7           |
| 20     | 83.9            | 85.1           | 84.4           | 84.1           |

**Table 1.** System performance evaluation statistics table.
Regional differences lead to different characteristics of rural settlements in various regions. Moreover, hundreds of millions of farmers have lived here for generations, and the inherited cultural heritage and long history make it different from the city. Therefore, on the one hand, rural planning should protect the current landscape pattern and natural resources according to local conditions, and on the other hand, it should explore the internal needs of users for rural tourism. Planning to change the daily production and life of villagers without authorisation and forcibly set tourism themes and business formats is tantamount to water without a source or a tree without roots. In addition, as the practice of leisure agriculture in my country continues to deepen, new forms and contents continue to emerge, and people’s understanding of its inner meaning is constantly enriched, and there are endless discussions on the concepts of leisure agriculture. This paper analyses and studies the current development of leisure agriculture and rural tourism at home and abroad, and aims to provide better planning ideas and a planning system with universal guiding significance for the future development of leisure agriculture and rural tourism in China.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Figure 7. System performance evaluation statistics chart.
social values of art and culture-related programs, especially strategies for rural revitalization, rural cultural tourism, and relevant behavioral analysis.

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