

# Sustainable Development of Desert Tourism in China

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**Abstract:** China's deserts are widely distributed and large, and desert tourism has a broad space for development as a characteristic tourism. China's desert tourism industry is in a stage of rapid development. However, due to the lack of regional characteristics, the brand effect of desert tourism is not obvious at present. Desert tourist attractions are mostly far away from cities and traffic arteries, and the development cost of scenic spots is high. It is difficult to construct and protect roads in desert areas, and the distance between scenic spots (scenic spots) is long, resulting in long tourist routes, high time and economic costs, and weak market competitiveness. The sustainable development of desert tourism objectively requires the integration of the ecological, cultural, and exploration functions of the desert, and gives full play to the unique advantages of desert tourism in the national tourism development pattern.

## 1. Introduction

The rich desert tourism resource endowment has laid a foundation for China to carry out desert tourism. The development of desert tourism provides a new economic growth point for China's economically backward and ecologically fragile desert areas [1]. As a fragile area of the ecological environment and a sensitive area, the desert area must strictly observe the ecological red line in the process of developing the tourism industry, and avoid the development mode of destruction before protection. On the one hand, while the tourism industry is developing, the desert areas must pay attention to ecological restoration, and continue to promote the projects of returning farmland to forests, returning farmland to grassland, desertification and rocky desertification control. On the other hand, the ecological restoration of desert areas can transform the existing environment, restore the ecosystem, create new landscape, create a good ecological environment for tourism, and accumulate potential for the development of desert tourism.

## 2. Unique Tourism Value of Desert

### 2.1. Aesthetic Value

Aesthetic value refers to the complex psychological process in which the components of landscape resources act on people's heart through their senses (vision, hearing, smell, touch, taste, etc.), and make people feel the internal experience such as pleasure and comfort [2]. Sand dunes are the most basic elements of desert tourism landscape, and also the primary attraction to reflect the heterogeneity of desert tourism resources. The beautiful and changeable sand dune shape can meet the curiosity, different and aesthetic needs of the ornamental nature and sand, and a scenic spot with golden sands, clear water, green grass, blue sky and other colours will leave a deep impression on tourists. In addition, the amount of colour is also an important factor reflecting the richness of landscape types, which can be evaluated from the micro sand and desert. The sunrise and sunset of the desert, and the rise and decline of vegetation jointly shape the day and season of the scenery, and constitute the "appearance" of the desert tourism landscape is the most obvious reflection and expression of the desert aesthetics in time and space. This changing sand landscape often affects the aesthetic psychology of the viewer, so that it produces a specific emotional experience. The desert

shows the most primitive and shocking beauty of nature with its unique vastness and magnificence. Under the sunlight, the golden yellow grains of sand seem to be given life, sparkling and boundless, like a vast golden ocean, extending to the horizon, intertwined with the blue sky into a moving picture [3]. Although the associated environment of sand domain ( mountain, water body, oasis, etc.) is not the core attraction of desert scenic spots, but as a landscape formation element associated with the sand dunes, it is in line with the public aesthetic psychology and plays an indispensable role in the overall aesthetic value of the whole landscape. The famous desert tourist area has more complex environment, and the monotonous desert hinterland, unique, remote and other aesthetic features of the natural landscape, which can be summarized as "strange" in the desert. The wonder of desert landscape comes from its own uniqueness, from the combination of various landscape elements, strong landscapeogeneity and regional characteristics, which is the biggest incentive of desert tourism motivation. Coordination and order, diverse unity is the principle of landscape form beauty, only in this way can be diverse but not messy, coordination but not disorder. Although the landscape type of sand mountain forms a strong height difference contrast with the surrounding low and slow sand dunes, which is enough to surprise the tourists. Although there are few magnificent landscapes on the shore of sand and water, various elements constitute a harmonious and orderly way. The combination of sand and water adds a bit of beauty, which can also make the visitors linger.

## **2.2. Recreation Value**

Recreation value refers to the functional value of scenic landscape or resources for tourists, such as recreation, entertainment and sports. The unique natural environment conditions and landscape resource characteristics of desert scenic spots make them have unique advantages in the development of tourism products such as recreation, recreation and recuperation, which is another great value explored by human beings on the basis of the natural landscape resources of desert. "Business, learning, maintenance, leisure, feeling and wonder" are the six elements of the new tourism development in the future, and it is also the inevitable trend of the future tourism development. The desert scenic area, with its unique resources and geographical environment, fully has the value and potential of developing new tourism. After years of development, China's desert tourism has developed from a single desert adventure to a variety of product tourism activities such as desert sightseeing, desert competition and desert ecological perception, adding a variety of experience possibilities [4]. Desert recreation is plentiful, including sandboarding, camel riding, starry sky camping, unmanned highway driving, campfire feasting, and more. In the desert, visitors can experience unique entertainment and natural landscapes. For example, sandboarding is a gentle slide down from the height of a sand dune to feel the passion of youth; Riding a camel is walking in the twilight, accompanied by the melodious camel bells, which has a unique flavor; Starry sky camping is to get away from the hustle and bustle of the city and embrace the tranquil starry sky.

## **2.3. Scientific and Cultural Value**

Scientific and cultural value refers to the scientific research value, historical and cultural value and popular science education value of scenic spot resources. The geographical environment of the desert area is complex, the history and humanity are gathered, and the harmonious coexistence between people and sand fully shows the ecological connotation. The scientific and cultural value contained in it is also an important part of the value of tourism landscape. The ecosystems of deserts are complex and diverse, and despite the extreme environment, organisms survive through adaptive mechanisms. Studying the survival strategies of these organisms can help to understand the diversity of life and ecological conservation. In addition, the geological structure of the desert is unique, and through the analysis of the composition of the desert, scientists can trace tens of thousands of years of climate change and the evolution of the earth. It is also an important value attribute of the desert landscape in addition to the tourism function. Desert tourism integrates farming culture, nomadic culture, Silk Road culture, burial culture, ecological culture, ethnic culture and other cultural landscapes tourist attractions formed by historical and cultural relics often become the core of desert tourist areas [5]. The excavation and development of desert landscape in

history and culture have irreplaceable value. With the development of desert tourism, the protection of ecological environment in desert areas has been paid more and more attention. Many scenic spots have become the bases for carrying out desert ecological science education, combining ecological education in tourism. For example, Turpan Desert Botanical Garden and Shapotou Scenic Spot are themselves sand control bases or scientific research bases. Taking the road of integrated scientific research and tourism innovation, they also feel the ecological culture and meet people's desire to return to nature. The combination of tourism and popular science education function has a far-reaching impact on the sustainable development of desert tourism.

## **2.4. Social and Economic Value**

Social and economic value refers to the value reflected by landscape resources in scenic spots, which have positive effects on society and economy and positive peripheral effects through their own or human activities. Desert landscape, as the basis of tourism resources, will be properly developed to produce huge social and economic benefits, and otherwise, it will cause serious negative effects. Through desert ecological tourism, turning resource advantages into economic benefits is of great significance to the social development and ecological construction of desert areas, and is also the fundamental value of human beings in the development of desert landscape resources. The value of the economic benefit of the landscape is basically positively correlated with the landscape quality level, but it is not absolute. A scenic spot with flat landscape quality may also produce huge economic benefits under reasonable innovation and development. The vast natural and cultural heritage in desert areas, in addition to becoming the core attraction of desert tourist sites, it also has high cultural heritage value such as exploration, archaeology and scientific research, and is also an important criterion to reflect the landscape value level of tourist areas. Desert tourist areas are mostly distributed in areas with extremely fragile ecological environment. If the development and management is not proper, it will inevitably have a serious impact on the landscape quality and ecological environment [6]. At the beginning of the development of desert tourism, it is classified into the category of ecotourism. Therefore, the ecological environment quality is especially important in the desert scenic area, and the value of the ecological environment has become one of the characteristic elements to judge its landscape value. Desert tourism has its particularity, and its carrying capacity often becomes the bottleneck restricting the realization of other landscape value. The value of desert tourism environmental carrying capacity is reflected in many aspects, such as self-regulation ability, development and utilization conditions and operation and management ability, which can comprehensively reflect the tourism resources and development status of the scenic area. Its size is directly related to the realization of economic, social and ecological value, and plays an indispensable role in the overall landscape value of the scenic area.

## **3. Desert Tourism Development Mode**

### **3.1. Desert Tourism Resources Development Mode**

#### **3.1.1. Desert Tourist Attractions Driven by National Policies**

Most of the sand areas are located in areas with fragile ecological environment, and most of the areas are economically backward, with sparse population and closed traffic. Although the development and utilization of tourism resources in the sand area can promote the development of local economy, it requires a huge amount of capital investment, and it is possible to damage the fragile ecological environment in the sand area [7]. Therefore, the development of tourism industry in the sand area mostly comes with the national development plan. For example, in 2009, in order to relieve the pressure of the Yellow River, the state spent a huge amount of money on the construction of emergency flood diversion in Ulan Bu and desert flood diversion areas, forming a water surface of 100,000 mu, and then developing the Nilun Lake tourist attraction based on the water surface formed by the flood diversion.

### **3.1.2. Tourism Driven by Characteristic Product Resources in the Sand Area**

The sand area affected by extreme climatic conditions, the number of animals and plants is relatively small. However, because of its unique natural conditions, it has rare resources lacking in other regions, and the model of driving the development of tourism industry with desert product resources is gradually formed. For example, Ejina Scenic Spot in Alxa of Inner Mongolia take local characteristic products as the initial selling points, gradually add a series of activities after attracting tourists, and finally combine them with the tourism industry, so as to not only promote the development of the local series of economic industries, but also promote the tourism brand to the whole country and even the world.

### **3.1.3. Tourism Driven by Historic Sites and Folk Culture**

Most deserts are located in remote areas, with profound cultural deposits and unique folk customs. For example, the multi-cultural integration of the "Silk Road" makes it an important area for cultural scientific research. As the desert tourism and market demand, from the initial simple historic sites and folk customs visit browse gradually in the process of development, eventually includes the non-traditional festival activities, wen gen product design promotion, desert sports, desert medical extension project, gradually realize the cultural characteristics and sites for tourism.

## **3.2. Desert Tourism Resources Utilization Mode**

### **3.2.1. Scenic Sightseeing**

Scenic sightseeing is based on the tourism of the unique natural landscape resources in the sand area, and to expand the tourism mode of other tourism experience projects, such as the Populus euphratica forest in Ejin Banner.

### **3.2.2. Competitive Sports**

The special environmental resources in the sand area provide a natural competition field for sports competition. Using the vast sand resources to organize sports competitions such as sand skiing and sand cross-country, we will first develop sports competitive tourism activities, and then gradually form a complete tourism industry chain. For example, the "Heroes Club" held by Alxa will attract fans from all over the country with various extreme sports competitions in sand areas and gradually form the tourism industry.

### **3.2.3. Engineering Construction**

Many desert scenic spots and national engineering construction projects belong to mutual support and mutual promotion. Desert resources provide the necessary conditions for the construction of water conservancy projects, and the water conservancy construction projects also develop the desert resources, and provide better viewing conditions for them. Such as the Shapotou water conservancy project in the Tengger Desert, Wulanbu and Sanshenggong water conservancy project in the desert.

## **4. Problems of Desert Tourism in China**

### **4.1. Desert Tourism Lacks Regional Characteristics**

Although China's desert resources are vast, they are mostly deep in the northwest inland with poor traffic conditions and relatively weak economic development, and the desert landscape distribution is relatively scattered. Therefore, the existing traffic problems and landscape distribution problems lead to a series of problems such as entering the scenic area, single scenery along the way, and boredom.

### **4.2. The Rationality of Desert Tourism Project Allocation Needs to be Improved**

With the continuous improvement of people's living standards, the demand for tourism has gradually changed from sightseeing to leisure and vacation experience. The research shows that in

addition to daytime sightseeing, the setting of scenic spots is the main factor for tourists to improve the time of tourists to stay in, and many famous scenic spots, night trips, performances and light shows are more attractive to tourists than during the daytime. At present, the sand area tourism in China mostly stays in the daytime sightseeing, and the night tour project is still in the exploratory stage. The development of night tour project is the only way for the development of desert tourism. It is necessary to comprehensively analyze the characteristics of desert scenic spots, plan the desert night tour project, improve the night consumption of tourists, and promote the night economic development of the scenic area.

### **4.3. Tourism Projects Are Lack of Regional Characteristics**

China's desert resources are widely distributed, and each region has obvious regional landscape characteristics, biological resources characteristics and folk culture characteristics, therefore, we should pay special attention to the development and utilization of regional characteristics in the development of desert tourism projects. At present, China's desert tourism activities are relatively single and the low level of product projects in each region is serious. The main reason for the lack of its own characteristics in China's desert tourism is the homogenization of desert tourism resources and the lack of in-depth development. Many desert tourism projects lack innovation and personalized design, resulting in a similar and unattractive visitor experience. In addition, there are some problems in the development and management of desert tourism, such as the lack of unified planning and standards, resulting in uneven service quality and affecting the overall experience of tourists.

## **5. Sustainable Development Countermeasures of Desert Tourism**

### **5.1. The Close Integration of the Sand Industry and the Tourism Industry**

Desert resources are a special resource. The sand industry makes full use of the biological resources, climate resources and sand particles in the desert area, and becomes a new industry. Sand industry itself can be regarded as the category of desert tourism products, which is inseparable from desert tourism and promotes each other. For example, the production process can be used for tourists to visit the popular science, the finished products can be used as tourist commodities for tourists to buy, and the tourism income provides financial support for the sand industry. In the development of sand industry, ecological construction and tourism resource development should be closely combined, and ecological construction should be driven by ecological construction and promoted by tourism.

### **5.2. Enrich the Desert Tourism Projects**

The improvement and innovation of tourism projects play an important role in the sustainable and stable development of desert tourist attractions. Each desert tourist attraction should, on the basis of ensuring the ecological, cultural and tourism value, and on the premise of highlighting the characteristics, diversify the development of tourism projects. In terms of space, tourism projects can turn from the ground to the sky, hot air balloon, paragliding help visitors overlook the desert scenery from the air, is also a beneficial sports and fitness activity; the sunrise and sunset scenery, inspire life. In terms of content, the desert culture museum and the desert ecological resort can be established, so that tourists can deeply feel the desert culture and integrate it into the desert. Formally, on the basis of maintaining sightseeing and leisure, it can be carried out according to local conditions to serve the people and expand business opportunities.

### **5.3. Deepen the Development of Ecotourism**

At present, desert tourism includes not only the tourism in the desert area with natural ecology as the viewing object, but also the protection and responsibility of the ecological environment in the process of tourism development activities. However, the ecological culture and ecological experience are not much, and the harmony of various elements in the ecosystem is also low. Deep ecological tourism refers to the focus on tourism system and the surrounding environment

coordination, on the basis of the ecological culture display and tourists in the first place, both promote operators and tourists interaction and the implementation of multiple responsibilities, realize the interests of all parties to win more, and strengthen environmental cognitive education and the formation of the ecological wisdom morality. The development of desert tourism resources should give full play to the advantages of resources, combine desert management, desert education and desert tourism organically together, and take desert ecotourism as a development form of sustainable development.

#### **5.4. Improve the Tourism Safety System**

In order to ensure the tourist life and property safety, desert tourism business units shall have special qualification requirements, tourism practitioners and participants of safety education and training need to strengthen, in the scenic spot shall set up the necessary safety warning signs and facilities, emergency rescue system and travel insurance risks shall be perfect, but also should enrich the corresponding laws to regulate tourism management and solve accident disputes. In addition, in the key positions of practitioners, it is necessary to strengthen the construction of desert adventure tourism professional talent team, so that members have certain knowledge of desert environment and resources, exploration security knowledge, tourism knowledge and necessary physical conditions, and implement the certification system, so that they can become the guardian of tourist safety.

### **6. Conclusion**

The rapid and sustainable development of desert tourism is one of the important paths for China's desert areas to achieve high-quality economic development. The key to building a desert tourism brand is to awaken the sleeping desert resources and do a good job in the big article of uniqueness. Governments at all levels in China's desert areas should vigorously develop desert tourism, transform the advantages of natural resources such as the desert Gobi into tourism development advantages, and cultivate and create new growth points in desert areas.

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