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Research on the Eco-tourism and Environment-friendly Land Use Patterns in Shangri-La

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Abstract Through the analysis of the geographical features of the Shangri-La, the eco-tourism and environment-friendly land use patterns were proposed. And the significances of the mode of economic development in Shangri-La were analyzed.

Key words Environment-friendly patterns, Land use, Shangri-La

The earth is the carrier of all the other resources, thus the reasonable use of land resources influences the use of other resources to a great degree, which makes it essential to choose a kind of land use pattern that is favorable to environment protection. The environment-friendly pattern of land use must maintain ecological balance. As a complex system involving ecological system and social economic system, the environment-friendly pattern is developing through the movement in the internal system and between systems. Therefore, in the ecological construction, it is imperative to display the animals' capacity to consolidate nitrogen, to collect nutrition, and to recycle nutrition. Meanwhile, appropriate investments would maximize systematic output. The environmental friendly pattern of land use can effectively coordinate the relation between people and the earth, enhance the use of resources and is conducive to solving contradictions in land use.

1 Shangri-La

It is because of an English novel that Shangri-La has become a widely known world. In 1933, the English writer James Hilton described a mysterious mountainous area in the East part of the earth, Shangri-La for the first time in his long novel *Lost Horizon*^[1]. As people in every place of the world are longing for this beautiful and mysterious Shangri-La, on September 14, 1997, Yunnan government announced that Shangri-La is in Diqing Tibetan Autonomous Region. On January 7, 2002, the State Council announced that Zhongdian County has changed its name into Shangri-La. Besides of Zhongdian County in Yunnan, many other places such as Lijiang and Nuijiang in Yunnan, Daocheng in Sichuan, Changdu in Tibet, Gannan in Gansu also claim that they have places called Shangri-La.

Relevant resources are shown in the references^[2-5]. This study focus not only on Zhongdian County. Shangri-La in this study is in the common border of Tibet, Sichuan and Yunnan.

From May 27 to June 2 in 2002, the first symposium "Shangri-La Ecological Reserve" was held in Lhasa, which suggested that all parties should forget about competition, join hands together and share the brand of "Shangri-La". The meeting defined the future Shangri-La as southwest Sichuan, Northwest Yunnan, and south-east Tibet, and decides to found a coordinated group led by Shangri-La ecological reserve. 9 states and 82 counties have been included in Shangri-La to build a Shangri-La ecological reserve.

2 Geological characteristics of Shangri-La

2.1 Biological diversity There is a complete ecological system with various species in Shangri-La. Because of special geological landscape and climate, there are 67 places with famous ancient trees, 32 kinds of flowers, 12 places with plants, 53 kinds of wild animals, 9 kinds of secondary and 13 kinds of tertiary national-level rare and endangered plants, 11 kinds of senior and 27 kinds of secondary rare and endangered animals. Of all the plants in Shangri-La, Haba Natural Reserve is named as the mother of flora king, and it has become one of the world famous flora gene bank.

2.2 Rich resources There are plenty of water resources in Shangri-La. As the origin of many rivers, the Qinghai – Tibet Plateau is also called the Asian Water Tower. There are more than 70 kinds of verified mines, which is above half of the verified mines in China. A distinct advantage of Shangri-La lies in its forest resources. The forest covers 17.557 3 million hm^2 , which is above 10% of national forest area. The forest coverage rate reaches 43.68%, far higher than the national average level (18.21%). As a relatively independent geological unit and a place with colorful culture, Shangri-La is endowed with rich natural resources.

2.3 Humanity diversity As one of the typical places with many minorities living together in southwest China, Shangri-La preserve many kinds of languages, words, religious beliefs, production methods and customs. Shangri-La is the only existing "cultural gene bank" in the world (Miao Jiafu, 2004). The national and cultural diversity not only is the epitome of many nationalities, but also shows the diversity of national cultures in China.

2.3.1 National diversity. There are 26 minorities living in Shangri-La such as Tibetan, Ethnic Yi, Hui, Bai, Naxi, Nu, and Pumi,

which accounts for 48% of general 56 nationalities. According to statistics, until the end of 2005, there are 12.6002 people in Shangri-La, taking up about 1% of the general population. The ratio of minorities in Changdu in Tibet is the highest, about 97.8%, and the ratio of minorities in Panzihua in Sichuan is the lowest, around 13.0%, which is far higher than the 8% of minorities in entire China.

2.3.2 National cultural diversity. Each nationality has formed its own distinct social culture because of complicated economic types, living methods and customs in the course of thousands of years of development.

3 Environmentally friendly land use pattern of ecological tourism

The nature protection and ecological tourism land use pattern is proposed based on principles such as the harmonious relation between nature and human beings, protection of biological diversity and sustainable development.

Shangri-La lies in the southwest Yunnan Province, geographically high in the northwest and low in the southeast. The highest difference of height was about 4042 m. According to the environment quality analysis (Fig. 1). As Shangri-La is at the elevation between 2400 m and 1600 m, corn and wheat are often planted there. Since places above the elevation 2400 m are temperate and windy, the agricultural development is restrained. Therefore, on the basis of guaranteeing the food supply, all the arable lands have been planted with trees to offer wood to local farmers and to preserve ecology. In places where the elevation is above 3700 m, sheep and yaks have been raised. Besides, as the accumulated snow is the major source of water, it is imperative to protect the nature.

The key of nature preservation lies in the biological diversity and resources diversity in Shangri-La. The increasing number of tourists have already destroyed local biological diversity. The development and cultivation of hydraulics and mine resources have made local environment more fragile^[7].

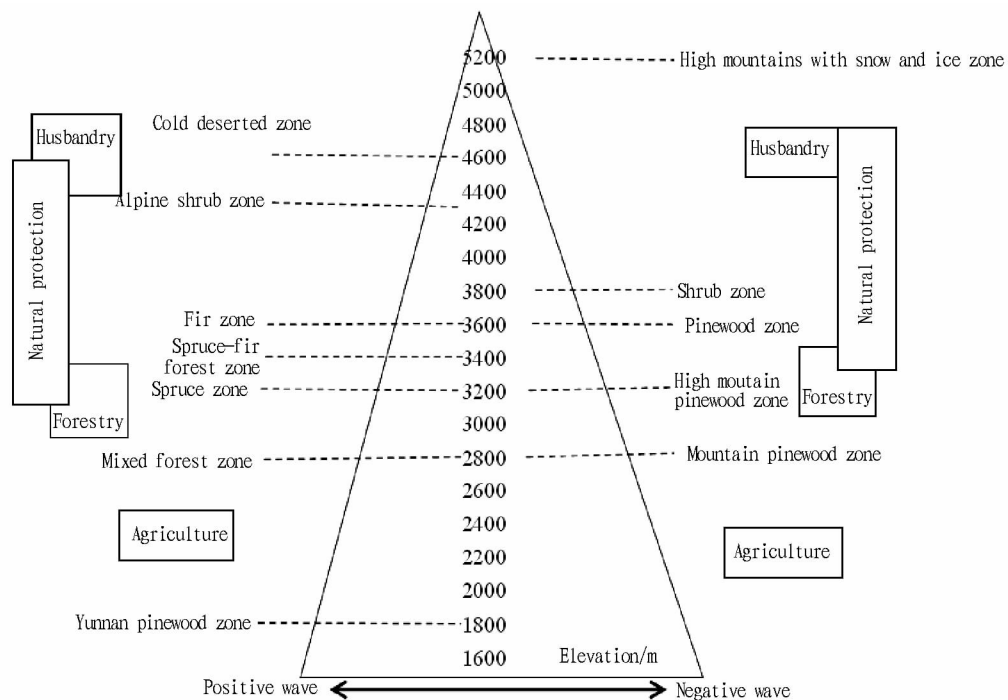


Fig. 1 Vertical distribution of land use in Shangri-La

Ecological tourism was put forward for the first time in 1983 by the World Nature Preservation Union as a kind of travelling activity to protect both the local environment and to safeguard people's responsibility. What ecological tourism emphasizes is to preserve the natural scenic spots and sustainable tourism. Ecological tourism refers to certain responsible travelling behavior in certain places to enjoy the history and the existing culture. Such behavior reduces the negative impacts of travelling on local ecology and economy. There are three natural reserves in Shangri-La, and the use of land in the ecological region is the focus of ecological protection and economic development. The exploration of how to

achieve natural protection and economic development through ecological tourism. The special geological features and complicated landscape in Shangri-La preserve many famous peculiar landscape, such as Hutiaoxia, Habaleishan, Baishuitai, and Qianhushu (Table 1). The natural scenery not only reflects the characteristics of Shangri-La, but also suggests local culture with many temples and sheep, religious adherent and houses, which becomes the wonderland for both human beings and gods. The Dongba culture origin reflects the charm of humanity ecological resources in Shangri-La^[8].

Table 1 Composition of ecological tourism resources in Shangri-La Unit: No. , %

Category	Sub – category	Total number	Percentage	Total tourism value
Ecological safety resources of natural tourism	Geographic landscape	19	4.7	250
	Waters	26	6.7	
	Sky	3	0.8	
	Biological landscape	202	50.2	
Ecological safety resources of humanity tourism	Ancient architecture	43	10.7	152
	Customs	109	28.9	

Note: The resource comes from the paper *Preliminary Study of Ecological Safety Resources of Humanity Tourism in Shangri-La* by Fan Bin.

The keynote of ecological tourism in Shangri-La is to return back to the nature, to meet people's demand by letting them enjoy the nature and know the nature better based on the magnificent natural sightseeing and peculiar humanity sceneries. In this way, tourists can cultivate the idea of environment protection through personal experience, understanding of natural scenery, wild animals and plants, as well as relevant cultural and historic characteristics. For local residents, besides of great economic benefits that eco-tourism brings them, what's more important is the idea to reasonably use and to preserve the land and the ecological system. Therefore, the ecological tourism land use pattern deserves to be studies and carried forward.

4 Environment-friendly characteristics

The natural reserve exerts an increasingly important role in improving local environment, maintain the regular circulation of ecological system, enhancing people's living condition, promoting local agriculture ecological environment updating to benign circulation, and reducing natural disasters. The beautiful natural environment and traditional national culture can lead local farmers out of poverty without cutting trees and destroying natural environment. The splendid species resources and elegant environment in the natural reserve can meet people's cultural and living demand. What's more, natural reserve is an essential place to do some artistic work and to find inspiration to many artists. Based on this environment-friendly land use pattern, a benign circulation mechanism to develop national cultural industry has been developed during the ecological tourism, which coordinated the tradition with modernization and avoid degenerating ecological tourism resources^[9].

The followings are characteristics of environment-friendly in the natural protection and ecological tourism land use pattern in Shangri-La.

4.1 Uniting natural environment with economic development Compared with traditional tourism activities, modern ecological tourism is more environmental-friendly. Modern ecological tourism can increase the forest coverage in the natural reserve and reduce water and soil erosion. In terms of travelling development planning, ecological tourism follows the natural ecological rule and achieve harmony between the nature and human beings. With regard to tourism development, ecological tourism brings in huge economic benefits. As for management, ecological tourism forbids pursuing short-term economic benefits, and seeking sustainable development. Tourists can develop an awareness of environment protection, and would appreciate what the nature has endowed to

human beings. Furthermore, the earnings from ecological tourism are the main income to local residents who learn that they can live a better life as long as they protect local environment and avoid destruction of the natural reserve.

According to statistics in 1996, the total production value in Diqing reached 623.71 million Yuan, 1867 per capita. The total value of industry and agriculture was 489.62 million Yuan. The agricultural production value was 301.82 million Yuan, about 61.64%, of all the agricultural production. Of all the agricultural production value, agriculture accounted for 47.68%, forestry 28.78%, husbandry 23.52%, and fishery 0.02%. There were 12739 township companies, generating 243.47 million Yuan. The production of crops was 125223 t, about 374 kg per capita. Until 2005, the production value reached 67.25 million Yuan. The total GDP was 19.78 million Yuan, 15% higher than that of last year. The total farmers' earning amounted to 112.454 million Yuan, about 8.3% higher than last year. Farmers' net income per capita reached 19.93 million Yuan, at an increase rate of 8.9%. The total income of agriculture was 10.778443 million Yuan, at an increase rate of 34.75%. The husbandry income was 5.094520 million Yuan, at an increase rate of 47.3%. The distributable net income of countryside economy was 14.7525 million Yuan. In 2005, the total countryside fee was 9.1725 million Yuan, among which 6.215 million was for production and 2.9575 million was for management. In 2005, the total income of agriculture was 10.778443 million Yuan, which was 0.608443 million Yuan higher than that in 2004. In 2005, 819.164 hm² was planted with crops, among which 783.82 hm² was for grains. 1647,95 t crops were generated, about 347 kg per capita. In 2005, the total production of agriculture was 13.4534 million Yuan, which increased by 0.4813 million Yuan than that in 2004. The output of main crops in the countryside was as follow; 1835.75 t grains, 212.45 t wheat, 295.18 t corn, 1314.5 t barley, 490.45 t potatoes, and 66.66 t rapeseeds.

In retrospect of the "eleventh five-year" plan, Shangri-La aimed at building a famous tourism city. The idea of developing the county through tourism has been widely promoted. In the past five years, the total income of tourism doubled from 187.64 million to 533.20 million Yuan, increasing at an annual rate of 23.23%. The specific cooperation form was further examined in accordance to the demand of market economy and the request of building a modern company system. Significant progresses have been made in the construction of various scenic spots. 434.91 million Yuan have been invested in five years. In order to create fa-

avorable travelling environment, the government regulated the tourism industry. From 2003 to 2007, the image of Shangri-La has been formed since it became one of the essential scenic spots in Yuannan Province. From 2008 to 2012, Shangri-La County has turned into one of the major national cultural ecological tourism demonstration zones, and Shangri-La has become an international tourism brand. From 2013 to 2020, Shangri-La will be constructed as a regional international tourism center covering East Asia and Southeast Asia. Until 2013, five scenic spots would be listed as "4A" travelling spots. 2.88 million people in China or abroad have been there. 107.246 million Yuan have generated through tourism, which contributed to 32.14% of the regional finance.

4.2 Historical culture and modern science and technology being equally important Shangri-La is endowed with special history and realistic culture. Its living conditions and cultural forms preserve pure original state, which sounds very attractive to tourists. Since tourists want to experience an alien culture, local farmers can increase income and pursue modern technology by preserving its own history and culture for tourists to experience. Such interrelated correlation results in a win – win outcome between tourists and local residents.

4.3 Tourists' participation and natural resources protection being equally important The participation of ecological tourism was shown in two aspects. Firstly, ecological tourism can let tourists experience the natural and cultural ecological system so as to love the nature. Meanwhile, through participation, tourists can get difference experiences. On the other hand, ecological tourism is

an activity in which tourists, local residents, managers, governments, social groups and researchers all can participate. Therefore, tourists, local residents, managers, governments, social groups and researchers all should be involved in the decision-making and management of tourism, so as to promote local economic and social development. When local residents give up the extensive land use patten, the natural resources such as land will be protected.

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(From page 57)

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