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Study on the Special Planning of Shangri-la—Weixi Highway Rural Tourism in DiQing Tibetan Autonomous Prefecture

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Abstract: *The Shangrila-Weixi highway is a main traffic line from Shangri-la city to Weixi County, with a total length of 133.7km, belonging to Diqing Tibetan Autonomous Prefecture. The study on the rural tourism planning and design of the xiang-wei railway line has enriched the tourism products of the Great Shangri-la City and improved the quality of the tourism products. Strengthening the local economy of the Shangrila-Weixi highway, especially the protection of the existing material resources, and playing a positive role in promotion of the intangible culture left over by the Tibetan, Naxi people, Lisu people and Pumi people in the region. At the same time, it will also effectively promote the construction of regional urbanization, optimize the rural living environment and community participation management structure, and increase employment. The special planning of Shangrila-Weixi highway rural tourism will be built into the feature of "Tourism Holy Land".*

Key words: *Rural tourism; Tourism resources; Special planning; Shangri-la city*

Tourism planning refers to the target system established for the development and protection of tourism resources, according to the changes of the history, current situation and market elements of tourism industry, and the arrangements made for the elements of tourism development under the specific development conditions for the realization of this target system.

Landscape System Planning

The function of rural tourism is comprehensive, which will deeply affect every aspect of rural development. It is manifested in rural economy, society, ecological environment and rural spatial organization. The landscape of Shangrila-Weixi highway rural tourism special planning belongs to historical inheritance or natural formation. With the promotion of the new socialist countryside construction, rural revitalization and poverty alleviation project, Tibetan villages have undergone gratifying changes.

Landscape point

In the planning of Shangrila-Weixi highway rural tourism, the traditional houses, village environment, snow mountains, ancient trees, tobacco culture, solitary trees, canyons, peaks, grasslands, gullies, dance venues, tourism rest centers, artificial water landscapes, trees, caves, rural scenery, etc. are the main scenic spots.

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Landscape axis

The special plan takes Tangdui-Qizong village as the axis, seven resource areas as the node development, and relies on Shangrila scenic area and natural landscape. The development and construction of scenic spots can form a corresponding relationship with them, highlighting the special natural features and cultural characteristics of the areas along the line.

Landscape surface

In the special plan, Tangdui village panoramic view, Tibetan traditional reconstruction of folk houses, Tibetan black pottery culture, Tibetan traditional crafts exhibition and sales, white pagoda, Tuyao, horse racing festival and rural scenery will be built into Tibetan black pottery cultural resource area.

Tibetan blockhouse building and Tibetan family visit will be built into Tibetan building resource area. Gully art, grassland, peaks, waterfalls, icicles, trees, rocks, caves, canyons, slopes, cattle and sheep, wildlife, photography, shouting and hiking exploration will be built into Tanglangding natural resource area.

Lisu architecture, heritage culture, production tools and characteristics will be planned as a folk resource area. The ancient Tibetan temples and the Bodhidharma master cave will be built into the ancient temple resource area. Build the suspension bridge, silver beach, snow area Jinsha River, Yin-Yang stone cave, Tibetan Inn, catering hall, dance field, competition song, handicraft exhibition and sales, photography, mountain bike and management, first aid and telecommunication service institutions into a tourist resort. The village will plant tobacco, weave and dry tobacco, process tobacco, traditional flue-cured tobacco house, modern flue-cured tobacco house, tobacco culture center, ore culture center, and Naxi Reba dance as the resource area of Naxi culture street. The two entrances and exits will be built into the rural tourism area signs of Shangrila-Weixi highway.

Green Space System Planning

At present, the tourism forest coverage rate of Shangrila-Weixi highway is low, so it is urgent to increase the greening and rocky desertification control, and improve the natural environment of mountain and rock depressions.

Planning principles

Localization principle. According to the environmental conditions of Shangrila-Weixi highway rural tourism, local plants should be planted as much as possible, so as to ensure the satisfactory greening effect without damaging the local plants.

Characteristic principle. According to different landscape features, tour contents and environmental requirements of each functional area, different greening methods are adopted to form different plant landscape features of each scenic spot.

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Point-line-surface principle. Through the greening of points (scenic spots), lines (road traffic lines), surfaces (functional areas and the whole tourism area), a complete green landscape system of the tourism area is formed.

Green space planning

In the tourism area, plants are planted along the mountain road, hillside, rock and slope depression, especially climbing crops need to be planted around the residential buildings to reflect the rural flavor. Bamboo and grass shall be planted on barren slopes and open ground to beautify the environment and conserve water and soil. Focus on greening the waste slopes on both sides of the road from Qizong and Shangri-la to Shangrila-Weixi highway. The water body (refers to artificial water storage or rainwater storage, pond) is surrounded by planting landscape plants, such as honeysuckle, spiraea, azalea, cotoneaster, small rock, kudzu, aloes, etc.

Selection of greening tree species

It is suggested that the following plants with higher ornamental value and economic value should be selected as the main greening trees in the Shangrila-Weixi highway area.

Transportation System Planning

At present, the tourism traffic road system of Shangri-la scenic area has been established based on the ring road of Shangri-la scenic area and the county road. However, the pedestrian ring road has not yet been built, the construction of vehicle road is still in the primary stage, and the parking lot has not been built.

Road

There are six walking stone roads in the key planning and construction areas of Shangrila-Weixi highway: one is the walking road of Diaolou building in tangman village; the second is the walking road of Tanglangding waterfall; the third is the walking road of Qifeng and precipitous in Jiangdong village; the fourth is the walking road of silver beach; the fifth is the walking road of Jinsha River; the sixth is the walking road of Tuoding Lisu building group. There are pedestrian roads and vehicle roads in each village in the key transformation of tourism planning, and the continuous optimization of the two types of routes should be realized.

There are three factors to be considered in the construction of walking tourist routes: one is the combination of cattle carriage, people and horses; the other is the combination of multiple rest pavilions and green landscape; the third is to collect surface water on the road and surrounding areas, so as to form water storage pools.

Parking lot

Three new parking lots will be built in the special planning of Shangrila-Weixi highway rural tourism. The three locations are respectively located at the main entrance of Shangrila-Weixi highway rural tourism

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(medium-sized parking lot), jiaoyugang (medium-sized parking lot), and Qizong (small parking lot). In addition, in the peak tourist season, the open space beside the village road can also be used as an emergency parking lot. In addition, a parking lot needs to be built in the Tibetan and Naxi flue-cured tobacco cultural resources area and Jiaoyugang platform to provide services for ox carts and carriages.

Tourism Resources and Ecological Environment Protection Planning

Since the 1980s, as one of the ways of sustainable tourism development, eco-tourism has developed rapidly in the world at a rate of 30% every year. Tourism is highly dependent on the environment. At present, the tourism resources of Shangrila-Weixi highway are in good condition, the forest and vegetation are in good condition, there is no industrial pollution, and the air quality is in good grade. However, there are a certain amount of domestic sewage and garbage in the village, and most of the sections on both sides of the road and the path have wasteland, even rocky desertification.

Division of tourism resources and ecological environment protection area

The division of tourism resources and environmental protection zones is an important means to effectively protect tourism resources and environment. According to the characteristics of resources and environment of Shangrila-Weixi highway rural tourism, it can be divided into three different levels of protection areas.

Natural tourism resources and environmental protection measures

Water environment protection should establish and improve the sewage treatment system of Shangrila-Weixi highway rural tourism rest center and villages. At present, toilets, sewage settling tanks and septic tanks should be built, and the filtering function of soil should be fully utilized when discharging. With the increase of tourists, sewage treatment station should be built.

Strictly protect the accumulated drinking water and water kilns in the tourist village, and prohibit any domestic sewage from being discharged into artificial ponds. Relevant government departments have established three-level water lifting stations to build water lifting pipelines to tangman village to improve drinking water, agricultural irrigation and artificial water landscape conditions. Strengthen the management and protection of tangman River and existing ponds along the line.

Atmospheric environment protection

We should strengthen the construction of rural tourism environment, roads, drinking water and other basic conditions. Rural biogas, rural roads, drinking water for people and animals, rural cleaning and other agricultural supporting projects should be inclined to rural tourism spots, and rural tourism development projects should be linked with various agricultural supporting funds. The rural tourism of Shangrila-Weixi highway should vigorously promote the use of green energy such as solar energy, liquefied gas, electric energy, biogas, etc.; the stoves used for operation should be those with high fuel efficiency and small pollution, and solar energy should be fully used for lighting and other purposes within the line.

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Humanistic tourism resources and environmental protection measures

Shangrila-Weixi highway rural tourism not only has rich and unique cultural tourism resources, but also has excellent cultural tourism environment. There are stone towers, waterfalls, canyons, ravines, horse racing festivals, music, dance, water burial, black pottery culture, etc. there are more hospitable folk customs.

However, the psychological and blind development of eager for success has led to the rapid disappearance of many "local genes" in traditional settlements and villages, which not only does not help the local tourism development, but also damages the local ecological and original human environment. At present, a small number of stone towers have been gradually transformed, and new buildings have quietly entered Tibetan villages. Therefore, the protection work is urgent.

On the one hand, the protection of Tibetan traditional culture in Shangrila-Weixi highway rural tourism should be driven by interests, that is to say, the local people can see for themselves: through tourism development, the buildings with a long history, such as earth and stone towers and rural residential environment, are not only not out of date, but also can bring economic benefits to the owners. Traditional Tibetan diet, agricultural and forestry products, marriage customs, singing and dancing, handicrafts and so on can become important economic sources. So as to enhance the self-confidence and pride of the Tibetan people and consciously protect, inherit and innovate their traditional culture. On the other hand, because some local Tibetan traditional culture is on the verge of being lost, it is necessary to rescue, preserve, develop and develop them through sound, light and electricity technology, so as to ensure that their excellent traditional culture is handed down from generation to generation. At the same time, organize and carry out the training of cultural heritage, and restore the excellent Tibetan culture under the promotion of tourism economy.

As for the protection of tourism atmosphere, the hospitable attitude of the villagers in Shangrila-Weixi highway, the enthusiasm to participate in tourism management, the good social order and harmonious and relaxed living environment constitute a good human environment for tourism development. Through publicity, education and the formulation of "village rules and regulations", we can effectively maintain this good atmosphere. The key to the sustainable development of the village is to adhere to the orderly development of control.

Sanitation System Planning

At present, Xiangwei rural tourism needs to establish public toilets and dustbins, whose color and shape should be coordinated with the surrounding environment. And we must improve the garbage collection and treatment system, and choose the appropriate garbage dump.

Collection and treatment of tourism waste

In the future, garbage bins (baskets) with local characteristics and coordinated with the environment will be added to the parking lot, residential yard and other places along the line as well as on both sides of the tour road according to the standard of 500 meters. The garbage pool (room) shall be built in the low-lying shelter of the downwind of the reception service point, and the garbage shall be cleared and transported regularly by

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special personnel. Landfill and compost are the main methods of waste treatment, which can achieve the goal of harmless, resource and reduction. The waste disposal site shall be far away from the tourist area, the water source protection area in the residential area, the agricultural, fruit forest, grassland and other areas.

Construction of tourist toilets

First of all, we need to build toilets within the line, built toilets with internal sanitation facilities and septic tanks. Secondly, in the tourist Rest Center, the new tourist reception service point shall be built, and the corresponding number of tourist public toilets shall be built according to the national 2-star tourism standard. The appearance of the public toilets shall be coordinated with the surrounding environment.

Disaster Prevention and Safety System Planning

At present, the main disasters and hidden dangers of Xiangwei rural tourism are traffic accidents, rolling stones, collapse, tourism accidents, food poisoning, fire, etc. Among them, because the main reception points and scenic spots are located near the mountain slopes and cattle and horse lanes, tourists may have casualties due to falls and collision between cattle and horse carriages, so we should attach great importance to disaster prevention and safety issues.

Prevention of traffic accidents. The separation of carriageway and sidewalk must be realized, and the construction of pedestrian road should try to keep a large distance between cattle carriage and tourists. All kinds of warning signs shall be set up at the entrance and exit of the landscape and on both sides of the road. In order to avoid a large number of tourists and residents crossing the road, traffic safety education should be carried out. There are sharp turns at the entrances and exits of some reception points and parking lots, and the entrances and exits of tourist vehicles are likely to collide with the passing vehicles, so a turning point should be built in a suitable place. The inspection and management of traffic safety in tourism nodes should be strengthened and unremitting efforts should be made.

Rockfall and collapse prevention. Attention should be paid to the vegetation protection and construction of mountain forest land, grassland and both sides of the road in each tourist village. Afforestation and grass planting can stabilize mountains, prevent talc and reduce soil erosion. We should publicize and popularize the knowledge of rolling stone and its prevention.

Fire prevention. Strengthen the villagers and tourists' understanding of the forest fire prevention regulations, and improve their fire prevention awareness. Set up fire warning signs in villages, main reception points and forest areas, and build necessary fire-fighting facilities.

Prevention of food poisoning. Wild vegetables and wild fruits are the most special local food, but we should prevent the occurrence of food poisoning. On the one hand, food operators should be able to correctly identify whether wild vegetables are poisonous, on the other hand, they should make scientific cooking.

Establishment of relevant institutions and mechanisms. In the tourism village, first aid center, alarm system and emergency plan should be set up to deal with the emergency.

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Water Supply and Drainage Planning

Water supply planning

Water supply status. The water source of Shangrila-Weixi highway is scarce, especially in the north section, there is only tangman river with small flow, there is no water source in the mountain, the production and life of the village depend on the natural precipitation, and the water stored in the drinking water kiln of the villagers all the year round. In the future, the drinking and irrigation water of the tourism village needs to be lifted from tangman River in the canyon, otherwise, under the current situation of economic and social development and villagers' water consumption, its water supply system can not meet the tourism demand at all. First, the water supply of the water kiln is limited by the seasonal change, the water supply in the dry season is insufficient, and the daily water supply time is less than 24 hours. Secondly, due to the lack of filter and sedimentation tank, the quality of drinking water in the village water kiln fails to meet the relevant standards. Third, with the continuous expansion of tourism development and construction scale, the existing water supply system will not be able to meet the needs of tourism village development.

Water supply planning. In 2025, the total number of rural tourists on the Shangrila-Weixi highway will be about 100000. Assuming that the number of tourist days in a year is 300, according to the water consumption of 30 L / person / day for sightseeing tourists and 200 L / person / day for accommodation tourists, the daily water supply of the tourist area should be 179 cubic meters based on 5% and 95% of the total tourists, respectively. The specific calculation is as follows.

Average daily visitors = 100000 people / 300 days = 333.3 people / day.
Daily domestic water consumption = 333.3 people / day × 0.05 × 200 liters / person / day + 333.3 people / day × 0.95 × 30 liters / person / day = 3333 liters / day + 9499 liters / day = 12832 liters / day.
Daily production water consumption = domestic water consumption × 0.2 = 12832 L / day × 0.2 = 2566 L / day.
Daily fire water consumption = 3600 s × 2 h × 20 L / S = 144000 L (excluding forest fire water).
Daily other water consumption (including greening water, water leakage and unforeseen water consumption of pipe network) = (domestic water consumption + production water consumption + fire water consumption) × 0.15 = (12832 L / day + 2566 L / day + 144000 L) × 0.15 = 23909 L / day.
Daily total water consumption = domestic water consumption + production water consumption + fire water consumption + other water consumption = 183307 liters (unit converted to 183 cubic meters).

Key points of water supply. Villages and recreation centers in tourism resource areas need to draw water from rivers to ensure water availability in four seasons and nearby. Focus on ensuring the water supply of tangdui village, tourism Rest Center, tobacco culture street, etc., and build a large reservoir to meet the growing needs of tourists. Supporting construction of water purification facilities to improve water supply capacity. With the expansion of tourist scale, more than one artificial water storage pool can be built as the main water source of the tourist village.

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Drainage planning

Drainage status. The sewage and rainwater of Shangrila-Weixi highway rural tourism are basically discharged naturally according to the terrain, mainly flowing into depressions and infiltrating underground. According to the requirements of relevant departments, the residents of each village in the line, especially the tourist reception households, should build septic tanks and sewage network management. With the development of tourism, the expansion of the number of tourists and reception facilities, the discharge of domestic sewage has greatly increased, the rural environment has been affected, and its drainage system needs to be established.

Drainage planning. Generally, the sewage volume is calculated as 90% of the total water consumption. In this way, the maximum daily sewage volume of the Shangrila-Weixi highway in the future will be 165 cubic meters, which is calculated as follows. Daily maximum sewage volume = 183m3 × 0.9 = 165m3

Drainage points. We should promote water conservation and reduce the total discharge of sewage from tourist villages. The system of rainwater and sewage separation is adopted, roof rainwater is drained into the water kiln, and surface rainwater is drained into the artificial water storage pool according to the landform. There should be difference between sewage treatment and discharge mode. Sewage treatment station must be built in tangman village and tourist recreation center. After the sewage treatment reaches the standard, it can be used as irrigation water for surrounding farmland and plant grassland. In other areas, due to the terrain, landform and low water consumption, sedimentation tanks and septic tanks will be built in the near future to collect and settle the sewage and discharge it along the terrain (if the terrain inclines to the direction of water source, the sewage shall be collected in a centralized way and discharged to the place without affecting the water source after sedimentation). In the long term, depending on the reception scale and economic strength, further establish and improve its sewage treatment system. The tourism resources area in the middle and lower and South sections of the line will become the drinking water source for tourism development. In order to ensure that the drinking water will not be polluted, the plan urges the relevant government departments to establish a three-level water lifting station, which will arrange the water lifting pipeline and water transmission pipeline near tangman village, and establish a dedicated purification reservoir for drinking water.

Power Telecommunication Planning

Current situation of power telecommunication construction

At present, Shangrila-Weixi highway has established a relatively complete power telecommunication system. There are 5 transformers in the line, mobile phone signals have been fully covered, and all of them have realized power on communication. The main problems are that part of the wires and cables affect the landscape aesthetics and the development of tourism resources. Most tourism resource areas have not yet achieved Internet access.

Electric power telecommunication construction planning

In the newly-built tourist recreation center, a transformer and distribution room is added, and the power supply can be connected from the nearby high-voltage line by using the supporting grid. In the near future,

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it mainly supplies power for the tourism Rest Center. In the long term, it can be considered to supply power to the whole tourism area by special line. Construction and improvement of rural cable telephone service system, including office telephone, emergency call telephone, Internet access, room telephone service, etc. In the future, the electric poles inside and outside the village should be relocated. The electric wires and communication lines that affect the landscape should be buried with cables, and mail express delivery points should be set up in the village.

Conclusion

The Shangrila-Weixi highway is rich in rural tourism resources. After investigation, analysis and comparison, this paper summarizes the characteristics of the Shangrila-Weixi highway rural tourism resources, and puts forward the special planning strategy of the line rural tourism. The special planning area of Shangrila-Weixi highway rural tourism covers Tibetan, Lisu, Naxi and other ethnic groups. The resources of folk customs are concentrated, especially the Tibetan black pottery culture, Tibetan Architecture and so on. We must fully tap the inherent national tourism resources, and create a great Shangri-la tourism development pattern by actively developing the rural tourism along the Shangri-la line. In order to improve the economy of the area, the villagers should be included in the whole process of community participation structure, increase the employment of villagers, so as to carry out effective management and ease the contradiction between tourism and villagers. Actively declare cultural relics and historic sites, preserve the historical memory, space carrier and social and cultural foundation of intangible cultural heritage, strengthen its structural relevance, and build a cultural space with the characteristics of Shangrila-Weixi highway area. Fully excavate and carry forward the history and culture of Shangrila-Weixi highway, so that the human environment and ecological environment coexist in Shangrila-Weixi highway tourism area.

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