



Thoughts on the Construction of Ecological Corridor of Tourism Highway

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Abstract. Combined with the construction requirements of domestic tourist highways under the new situation, this paper analyzes the functional significance, construction principles, construction difficulties, etc. of ecological corridor construction, and puts forward the construction prospect of tourist highway ecological corridors, so as to promote the benign construction of tourist highway ecological corridors.

Keywords: Tourist Highway · Ecological Corridor Construction

1 Introduction

A tourist road is a road that connects tourist attractions or has tourist value on the side of the road, and is dominated by tourist traffic. It is a belt-shaped corridor that generally includes the main body of the road and auxiliary facilities, tourist service facilities, slow-moving facilities, and information service facilities, landscape facilities, ecological greening. The research results of domestic tourism highways show that tourism highways have complex functions such as transportation, ecology, recreation, culture and education.

Tourist highway corridor refers to the sum of all landscape elements, resource elements and service elements within a certain range on both sides of the tourist highway. The tourist highway corridor is the most closely related and most visible part of the tourist road users, and it is the concentrated expression of the value of the tourist road. As part of highway corridors, especially green corridors, ecological corridors can protect and enhance the highway and its surrounding areas. The construction of tourist highways is bound to bring certain damage and impact to the ecological environment along the route. From the perspective of ecological corridors, we can coordinate and make up for the contradiction between infrastructure construction and ecological protection, improve the service level of tourist highways, and promote regional economic coordination [1]. development is of great significance.

2 Functions of Ecological Corridors

The significance and function of the corridor research shows that the corridor, as the basic element of the landscape, structurally reflects the passage that divides the landscape pattern and connects the landscape units. As a long-distance linear structure,

tourist highways have extensive influence on both length and width. The ecological corridor of the tourist highway integrates the general functions of the corridor, and at the same time has the characteristics of the long-distance linear structure of the highway, and is an ecological corridor with its own characteristics. Through research and analysis, tourism highway ecological corridors have ecological service functions and functions such as improving highway landscapes, enhancing environmental protection, and protecting biodiversity.

- (1) Improve road landscape. The construction of the tourist road will inevitably bring damage to the environment along the route and cause a certain degree of landscape damage. Tourist highways have high requirements on the landscape. At the same time of construction, resources such as structures, historical and cultural landscape elements, and natural landscapes within a certain range on both sides will be considered and incorporated into the overall planning and construction of tourist highways [2]. These construction considerations have a high degree of overlap and coincidence with the corridors along the line, and are also an important part of the construction of ecological corridors. The ecological corridor of the tourist road itself can also be regarded as a part or extension of the landscape, which needs to be consistent with the overall ecological base of the area where the corridor is located. Therefore, the landscape planning and construction of tourist roads not only take into account the needs of their own beautification functions as landscapes, but also cooperate with the construction of ecological corridors on a large scale. overall landscape. The landscape construction of highways and the overall planning and construction of ecological corridors are mutually reinforcing, and the construction of ecological corridors plays an important role in improving highway landscapes.
- (2) Enhance environmental protection. It is an important principle to follow in the planning, design, construction and implementation of tourist highways to build roads and not bring damages into them. The natural resources and tourism resources around the tourist roads are generally rich, and the potential for sustainable development is large, which prompts the construction of tourist roads to pay attention to environmental protection, and the construction of ecological corridors has become an important starting point for enhancing environmental protection. The construction of tourism highway ecological corridor can organically combine transportation, tourism and ecological environment to create tourism highway products with complete tourism service facilities. Through the construction of ecological corridors, the damage to the original environment and natural resources caused by tourism highway projects can be minimized, and the high-quality and green development of highway transportation can be supported, prevention and control of soil erosion, strengthening environmental management and other aspects have played an active and important role.
- (3) Protect species diversity. Contradictions with the ecological environment have gradually emerged, such as the dense road network brought about by the construction of tourist roads, the continuous increase in road traffic volume, the intensified human interference in the road area, and the damage to the environment caused by the dense flow of people. Species in the road are threatened. Through the construction of ecological corridors, the diversity of species in the area can be sustained and

preserved. The construction of ecological corridors is conducive to protecting the biodiversity of biological species in the road area. The animals and plants in the area also have habitats due to the ecological corridors, and can move safely through the corridors, thus greatly protecting the diversity of organisms.

3 Construction Principles of Ecological Corridors

The report of the 19th National Congress of the Communist Party of China pointed out: “Optimize the ecological security barrier system, build ecological corridors and biodiversity protection networks, and improve the quality and stability of ecosystems.” In recent years, urban ecological corridors, river corridors, and highway ecological corridors are in full swing. The construction of various types of ecological corridors such as corridors is in full swing. As one of them, the ecological corridors of tourist highways need to follow and determine some planning principles of ecological corridors.

- (1) The principle of protection. “No damage is the greatest protection”. During the construction of the tourist road, it will inevitably cause certain damage to the vegetation along the route, affect the original soil and water stability, generate a large number of slope excavation surfaces, and destroy the original ecological structure [3]. In the construction, follow the principle of protection, implement the concept of building roads in and not bringing in damage, and ensure the balance and stability of the regional ecological environment.
- (2) The principle of diversity. Biodiversity refers to the degree of ecological diversification in a region, and is an important part of the highway ecosystem. Ecological corridor is an extremely important structural and functional unit of highway regional landscape, and it is the background and resource bank of tourism highway construction. Abundant and diverse biological resources are the provenance bank for landscape construction and slope greening during the construction of tourist highways. Ecological protection should be the main focus, natural community construction should be supplemented, regional characteristics should be highlighted, and a tourism highway ecological corridor combining diversity and localization should be constructed. Road landscape pattern to ensure the ecological diversity and ecological safety of the highway.
- (3) The principle of continuity. The construction of ecological corridors should be combined with the requirements of sustainable development of highway ecological environment, and it is necessary to realize that ecological sustainable development is the fundamental way to achieve harmony between man and nature, and harmony between economy and society, and it is also a must follow for tourist highway ecological corridors. in principle. To practice the concept that lucid waters and lush mountains are invaluable assets, put ecological sustainable development in a more obvious position, fully display the good ecological image of tourist roads, and promote the sustainable development of road construction.
- (4) Ecological principles. The construction of ecological corridors should be based on ecological principles [4]. In the plant design of landscape greening, multi-level configuration should be achieved, combining trees and shrubs with flowers and

plants, and horizontally and vertically in space, reflecting the overall beauty of the plant community.

- (5) The principle of integrity. The construction of the ecological corridor should start from the overall environment of the region, reflect the overall ecological image and personality of the region, and consider the road as a whole according to the characteristics of the tourist highway, and consider the buildings, greening, service facilities, and earth colors on both sides of the road, regional history and culture, etc., to avoid the stacking and patchwork of fragments, and create a complete tourist highway system [5].

4 Difficulties in the Construction of Ecological Corridors

The construction of the ecological corridor is a systematic project. There are some difficulties in the actual work to deal with the construction of the ecological system of the tourist highway itself and the ecological system of the surrounding areas, and to achieve a comprehensive and systematic planning.

- (1) There are various types. The design scope of tourist highway corridors is wide and involves many faces, and the types of corridors also show diverse characteristics. According to the characteristics of highways, there may generally be road ecological corridors, river ecological corridors, mountain ecological corridors, and forest ecological corridors. etc. different forms. For a tourist highway, a complete ecological corridor may be a combination of these types. How to grasp the characteristics of different types of ecological corridors and make an organic combination is the difficulty in the construction of ecological corridors for tourist highways.
- (2) Different requirements. The construction of road ecological corridors of tourist roads needs to consider ecological functions such as landscape enhancement, environmental protection, and maintenance of soil and water stability, so as to improve the overall environment of the road; at the same time, the construction of roads should reduce disturbance to animal migration and habitation, from the perspective of protecting species diversity, to meet its requirements; the link and match between different corridors also put forward certain requirements of difficulty. Different requirements under various elements are the difficulties in the construction of ecological corridors of tourist highways.
- (3) There are many key elements. The construction of ecological corridors is inseparable from the construction of road environment, landscape construction, environmental protection, and construction of tourist attractions. These tasks cannot be completed by the main unit of highway construction (usually the transportation department) alone. The construction of ecological corridors will promote the construction of ecological corridors from a macro management perspective.

5 Prospects for the Construction of Ecological Corridors

The ecological corridor of the tourist highway can well protect the ecology along the route, and it is also the composition and extension of the earth landscape. It is necessary

to consider the overall ecological corridor landscape in the region. The construction of ecological corridors should focus on the improvement of regional ecological benefits, and pay attention to the stability of the ecosystem along the tourist highway, the change of spatial sequence and the expression of regional characteristics.

- (1) Do a good job in the research and determination of the width of the ecological corridor. The road grades of tourist roads are different, and other design technical indicators such as design speed, width, and pavement structure are also different. At the same time, the terrain and geological conditions, regional climatic conditions, and regional hydrological conditions of the roads are also different. The original ecological conditions along the road are also different. The natural environment is also different, and it is necessary to study and determine the ecological corridor width of different tourist roads according to the specific situation.
- (2) Do a good job in the planning and design of ecological corridors. The construction of ecological corridors of tourist highways can beautify and enhance the surrounding overall environment. As the main transport carrier carrying tourist groups, tourist highways play a positive role in spreading and displaying the culture around the highway. The ecological corridors of tourist highways need to be comprehensively considered in terms of points, lines, surfaces, etc., to build a roadside visual impact range and area that adapts to the linear space of the highway, and give full play to the comprehensive benefits of ecological, economic and social benefits of the ecological corridors. Doing a good job in the planning and design of ecological corridors is of great significance for improving the level of tourist roads.
- (3) Do a good job in the landscape construction of ecological corridors. A good highway landscape environment is an important element in the construction of ecological corridors of tourist highways. How to implement this element well is an important topic in the construction of ecological corridors. During the construction of tourist highways, distinguish the characteristics of road areas under different time, space and environmental conditions, guide landscape construction through refined design, summarize and accumulate experience from practice, and create high-quality projects.
- (4) Do a good job in the dynamic construction of ecological corridors. During the construction of the ecological corridor, according to the characteristics of the corridor and the changes of the surrounding environment, the corridor design plan should be continuously improved to understand various uncertainties, and appropriate corrections and improvements should be made when necessary to maximize the guarantee of the corridor. Build quality. The dynamic construction of ecological corridors should be combined with the characteristics of highway projects, follow the design principle of “adapt to local conditions, be flexible and natural, and follow the trend”, and use dynamic Design means to adjust the program reasonably. Dynamic construction is of great significance to the successful construction and good results of ecological corridors.
- (5) Grasp the diversification of construction. Whether a tourist road is newly built or renovated and expanded by relying on the existing road, it will be limited by the scope of road land and land indicators. With the characteristics of different needs, following the principle of people-oriented and taking into account the old and the

young, the ecological corridor landscape construction can be flexibly considered to create a landscape suitable for all kinds of people to watch and appreciate. Highlight the characteristics of the regional environment and cultural features, let the tourist roads beaded into chains, and create a flowing linear corridor landscape.

6 Conclusions

The construction of ecological corridors for tourism highways in my country has great potential and space for development. The construction of ecological corridors is not as standardized and standardized as other majors in highway construction., the attention and importance of ecological corridors are also increasing, which has laid a certain foundation for creating a good ecological corridor. In addition, the rapid development of the tourism industry has spawned various travel modes such as self-driving tours and independent travel, which also puts forward higher requirements for tourism road traffic. How to combine the development needs of tourism highways under the new situation, make use of the important starting point of constructing tourism highway ecological corridors, and create a sustainable tourism highway environment that meets the needs of the masses is what tourism highway practitioners need to continue to think about and solved problem.

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