

## *Original Paper*

# Study on the Protection and Development Path of Linpan in Western Sichuan under the Background of Rural Revitalization

Yang Yimei<sup>1\*</sup> & He You<sup>1</sup> & Huang Yanmei<sup>1</sup>

<sup>1</sup> Department of Architecture and Civil Engineering, Southwest Jiaotong University Hope College, Chengdu, Sichuan 610400, China

\* Yang Yime, Department of Architecture and Civil Engineering, Southwest Jiaotong University Hope College, Chengdu, Sichuan 610400, China

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### ***Abstract***

*Based on the background of rural revitalisation, this paper conducts an in-depth study on the protection and development path of Linpan in western Sichuan. The article firstly explains the cultural value, ecological value and economic value of Linpan in western Sichuan, and points out the current protection and development of the forest plate facing the reality of the dilemma, and then puts forward the protection and development of the planning and innovative exploration analysis, aims to optimize the spatial structure, to create a multi-industry clusters, improve the landscape and basic supporting measures, to promote the sustainable development of Linpan in western Sichuan, and to achieve the goal of building and sharing a beautiful countryside. The aim is to promote the sustainable development of Linpan in western Sichuan and achieve the goal of building and sharing a beautiful countryside.*

### ***Keywords***

*Linpan in western Sichuan, rural revitalization, forest protection, development path*

## **1. Introduction**

Consolidating and expanding the results of poverty alleviation and comprehensively promoting the effective connection of rural revitalisation is a major strategic plan of the country during the 14th Five-Year Plan period, and rural tourism has become an important hand in implementing this strategy by virtue of its strong industrial relevance, high degree of integration of industry, and outstanding comprehensive benefits (Wang et al., 2022). Since 2018, Chengdu City has been actively exploring new paths for rural development through a series of initiatives such as the “Chengdu City Linpan in

Western Sichuan Protection, Restoration and Utilisation Plan (2018-2035)” and the “Technical Guidelines for the Protection and Utilisation of the Construction of the Western Sichuan Forest Plate in Chengdu City”. Western Sichuan forest plate, as a unique representative of rural farming civilisation, carries a profound regional culture and historical heritage (Li, 2018). In the current social context, the western Sichuan forest plate not only retains its traditional value as a living space, but also expands and deepens its value in industry, ecology, culture and other dimensions, and the importance of protecting and utilising the western Sichuan forest plate is becoming increasingly prominent (Liu et al., 2017; Cai, 2009). Western Sichuan forest plate culture is an important part of Sichuan culture, and the protection and development of forest plate culture is an inevitable trend of new rural construction (Zhang, 2021).

## 2. Literature Review

Zhao (2006) proposed three development modes of rural settlements and illustrated the application of different modes in landscape design through examples. Zhang (2008) defined the concept of forest panels community, which in a narrow sense is a system consisting of many neighbouring or intersecting forest panels within a certain area, which has the characteristics of wholeness, high density, multi-functionality and connectivity. Fan (2009) elaborated on the current situation, problems and opportunities of the forest disc landscape in western Sichuan under the new situation of urban and rural development. Liu and Mou (2012) summarised the planning and design methods of new rural settlements so as to effectively promote the protection and development mode of the western Sichuan forest plate.

The protection and development of the western Sichuan forest plate is a systematic project that requires us to start from many aspects. Only by effectively protecting its traditional spatial structure features and cultural values, fully exploring its industrial potential and strengthening infrastructure construction, can we promote the sustainable development of the western Sichuan forest plate and contribute to its rural revitalisation.

## 3. Problem Analysis

### 3.1 Lack of Effective Protection of the Traditional Spatial Structure of the Forest plate

The traditional forest plate in western Sichuan is famous for its unique four elements of “field, forest, water and courtyard”, and its spatial form presents a concentric circle pattern on the plane, which consists of three circles of house, forest and field, forming a unique spatial aesthetic (Yi, 2023). However, with the change of the countryside, the forest plate faces multiple challenges. While pursuing the convenience of transport, farmers often neglect the protection of the original ecology, destroying the original ecological spatial structure of the forest plate. At present, the development of forest resources is generally small-scale and decentralised, increasing the mismatch between the spatial structure of supply and demand of collective construction land. Although the land consolidation policy implemented by the government is aimed at releasing land for collective operational construction land

indicators, the reduction of residential construction land indicators has led to high-density, low-quality construction of residential communities, which is contrary to the original spatial structure of the forest plate where ecology, production and residential land are intertwined and integrated, destroying the form of the original rural settlements in the forest plate.

### *3.2 Insufficient Industrial Structure and Scale of Economic Development in Forested Areas*

Although the rapid development of rural tourism has brought economic vitality, it also faces some problems. Due to the low entry threshold for rural tourism development, too much emphasis has been placed on tourism and neglected integration in the process of integrated development of agriculture, business, culture, tourism and sports, resulting in the emergence of a large number of homogeneous “tourism-type forest panels”, fierce competition and uneven quality. The traditional economic structure of the forest plate has been difficult to adapt to the production and living needs of modern society, and is in urgent need of structural adjustment and transformation. However, in the process of transformation, the sharp increase in the proportion of special industries has led to the neglect of traditional plantation, which is easy to put the cart before the horse and affects the self-sufficient economy of farmers; the layout of special industries conflicts with the integrity of the spatial form of the forest plate and the continuity of the spatial optimisation of the outer environment, and some industrial land even encroaches on the forest resources and farmland in the forest plate, thus causing greater disturbances to the ecology and habitability of the forest plate.

### *3.3 The Landscape and Infrastructure of Linpan Need to be Improved*

The long-term under-investment in forest disc development has led to a relative lag in the construction of infrastructure in forest discs. Firstly, the insufficiency of property rights protection mechanism makes social capitals cautious about investing in the infrastructure of forest discs, and they are worried about the long return cycle and the difficulty of refinancing; secondly, there is no government as a bridge between the supply side and the demand side (enterprises, village collectives, and farmers), which leads to a disconnect between the supply of infrastructure and the actual demand; and lastly, the mechanism of post-processing maintenance and care of the infrastructure has not been improved yet, which affects the infrastructure's long-term benefits. At present, the existing public service facilities in Linpan are not well-equipped and incomplete, mainly focusing on basic services such as medical stations and small shops, which are far away from the farming Linpan and inconvenient for residents. In addition to this, the rugged and narrow roads in the forested sites with insufficient signage, serious parking problems and frequent traffic jams have also largely limited the development of the forested sites.

### *3.4 The Differentiation of Interests between the Local Residents and the Linpan Development Project Expands*

(1) Farmers' interests are not closely linked to the project.

Firstly, foreign forest development projects acquire the right to use land, houses and other assets with low inputs and a long time span, which crowds out the space for personal development of farmers.

Second, although the presence of forest development projects provides villagers with some jobs, most villagers find it difficult to match them with higher-income job opportunities due to a lack of their own abilities and competitiveness. Thirdly, the traditional rural collective economy has a weak economic base and low community governance capacity, failing to form an effective and reasonable distribution mechanism.

#### (2) Problems of Rural Tourism Business Subjects

First, the main body is dominated by individual households and enterprises. For example, rural tourism in Dayi County is mainly composed of individual households operated by local residents, and the number of enterprises is relatively small. Second, old age and old thinking. Individual households are generally older and have outdated business thinking, making it difficult to adapt to market changes.

#### (3) Lack of investment and business capacity

Lack of investment capacity, the village collective development foundation is weak, the accumulation of funds is limited, it is difficult to undertake the integration of agriculture, business, culture, tourism and sports development projects that require large investments. Village cadres are good at social management, but lack of market management ability, and lack of effective incentives to attract and retain business talent.

### **4. Research Point**

The protection and remediation strategy of the Western Sichuan Forest Plateau should focus on the following points to ensure its long-term sustainable development and integration into the modernisation process:

(1) Protection and remediation: Given the dispersed nature of the woodland settlements and the difficulty of comprehensive infrastructure coverage, we need to protect the natural resources of the western Sichuan woodland and at the same time remediate and repair the living environment to improve the overall quality of the human environment.

(2) Introducing social capital and industrial innovation, integrating industrial development: In response to the “rural revitalisation” strategy of the 19th National Congress of the Communist Party of China (CPC), the construction of the Western Sichuan Forest Plateau should be closely integrated with the development of industry, integrating social capital, and exploring new industrial planning. On the basis of maintaining the ecological and cultural characteristics of the Chengdu Plain, we should explore the economic potential of the forest plate, and build a protection mechanism for the forest plate in harmony with modern life.

(3) Reasonable planning according to local conditions: The development of forest panels needs to be planned according to the actual situation, and the number of households should be reasonably controlled. Too few households may lead to difficulties in resource allocation, while too many households may exceed the carrying capacity of the environment, which is not conducive to the protection and sustainable development of the forest plate. Different regions should adopt diversified

development modes to form distinctive forest pan systems.

(4) Scientific planning and flexible design: The protection and improvement of the western Sichuan forest plate should uphold a long-term vision, scientific planning and flexible design. Avoid large-scale changes, create an ecological and livable environment as the goal, and retain the rural characteristics of the traditional woodland landscape. Integrated planning of roads, buildings, water systems, fields, infrastructure and ecological environment in the village should be carried out to ensure a clean environment, perfect facilities, convenient and comfortable living for residents, and to build a new type of socialised living space.

## 5. Discussion

### 5.1 *Optimising the Spatial Structure of the Forest Plate*

The western Sichuan forest plate, located in the vast western Sichuan plain, intertwines with farmland and water veins to form a peaceful and beautiful rural picture. This unique rural landscape should be protected and inherited to preserve the regional characteristics of the forest plate.

In the protection and development of the western Sichuan forest plate, the protection of nature and space is crucial. Firstly, on the basis of the original structure of the forest plate, the boundaries and scale of the forest plate should be strictly controlled, and the water system, woodland and external roads should be clearly defined as the control boundaries of the forest plate, so as to ensure that the scale of the forest plate is neither over-expanded nor too small, so as to maintain the integrity and appropriateness of the overall contour of the forest plate. Secondly, to continue the spatial pattern and layout of the forest plate, maintain the harmonious symbiotic relationship between the forest plate and nature, and keep its unique spatial pattern and layout form. Finally, the protection of rural streets and lanes is also an indispensable part. As an important space for villagers' daily life, streets and lanes must be preserved in their original style and local characteristics. In the process of protection, we should pay attention to leaving sight lines and corridors, and at the same time, we should avoid interrupting the continuity of the streets and lanes with too many buildings or structures. Through these measures, we are able to make the streets and lanes a public space with both vernacular characteristics and a sense of life.

The improvement of public space and outdoor environment is a crucial part in the construction and development of the Western Sichuan Forest Plateau. This not only concerns the villagers' daily quality of life, but is also the key to enhancing community cohesion and promoting the harmonious development of neighbourhood relations. Firstly, for the optimisation of public space, we plan to carry out a comprehensive sorting out and planning of the public space in the village. Through rational layout and the addition of necessary sitting-out facilities, such as benches, pavilions and flowerbeds, villagers will be provided with a comfortable and pleasant outdoor recreational space. Secondly, through the improvement of public space and outdoor environment, we expect to provide villagers with a more comfortable and livable living environment, and at the same time strengthen the connection and

interaction between neighbours to create a harmonious and friendly community atmosphere. This will not only help to enhance the villagers' sense of well-being and belonging, but will also lay a solid foundation for the sustainable development of Chuanxi Linpan.

### *5.2 Creating Multi-industry Clusters in Linpan*

The core of rural revitalisation lies in the prosperity of the agricultural industry, and industrial diversification is the key to the sustainable development of Linpan. In order to achieve this goal, we need to optimise the industrial structure, take sustainable business development as the guide, attract the participation of social capital, form an operation mode in which villages, towns, market entities and villagers participate together, and build a community of interests among village collectives, farmers and social capital. Based on the natural resources of the forest plate, we can develop new industrial forms, such as holiday, recreation, study tours, etc., to form a “forest plate complex” with industrial characteristics. By promoting the scenic area of the forest plate, combining wetlands, greenways and farmland, we can create an agricultural park integrating agricultural tourism, folklore experience, lodging and recreation, etc., to further enhance the added value of agricultural products, strengthen the value of farming culture, and form an influential brand effect.

In addition, the development of creative agriculture and leisure industry is also a crucial part of the forest economy. The development of creative agriculture through farming experience and agricultural activities will highlight the advantages of the special products of the Linpan Rural Complex. We should pay special attention to the settlement-type forest panels with good ecological environment, large scale of forest panels and well-preserved traditional dwellings, and develop the culture and creative economy with the theme of searching for roots and exploring history, sketching and creating. At the same time, for non-aggregate ecological forest discs, ecological attractions should be increased through reclamation of retired houses and improvement of forest varieties, so as to attract the return of farmers and the development of B&Bs with local characteristics to attract tourists.

### *5.3 Implementing Landscape Renovation and Upgrading, and Strengthening Supporting Facilities*

As a micro-community integrating various functions into one, the forest plate should have the main functions to satisfy daily life, such as housing, access, food supply, manufacturing, leisure, socialising, commerce, etc., and ensure that there is a reasonable number of ratios for these functions. Considering the wide distribution and complexity of forest discs, there are real difficulties and investment cost problems in comprehensively covering the infrastructure. Therefore, the ideal layout of forest panels should be able to facilitate the sharing of infrastructure and serve as an important node of the regional facility network. Through mutual co-ordination and co-operation among forested areas, an efficient service network can be formed to meet the operational needs of various types of service providers, and jointly build a fully functional modern social system.

Among them, transport facilities, public services, and the environment occupy an important position in the supporting facilities of the forest disc landscape. In order to enhance the accessibility of the forest plate area, we need to improve the transport network. Firstly, rural roads should be constructed to

ensure that they are smooth and spacious to meet the needs of vehicle traffic. At the same time, considering the travelling of pedestrians and tourists, walking paths need to be constructed to ensure the safety and comfort of the walking paths. In order to meet the cultural needs of residents and tourists, we should build a series of public service facilities. For example, science libraries, cultural activity centres, etc. The construction of public service facilities will enable residents and tourists to acquire knowledge, improve themselves and enrich the spiritual life of residents and tourists.

#### *5.4 Scientific Planning to Build the Life Community of Forest Discs*

The first and foremost task of scientific planning is to clarify the development objectives of the forest plate and to build a community of life in the forest plate with the benefit mechanism as the core. In the planning and construction programme of the Western Sichuan Forest Plateau, the development objectives are set to achieve the sustainable development of the plateau under the premise of protecting the ecological environment, to improve the quality of life and the sense of well-being of the residents, and to enhance the tourism and leisure industry in the area to attract more tourists and investors. These objectives are set to provide a clear direction and motivation for the development of the forest pan.

(1) Protecting the common interests of multiple subjects and promoting the common construction, sharing and governance of forest panels

Strengthen the main body status of farmers, ensure the main body status of farmers in the development of forest panels, and realise the depth of farmers' participation in the development of forest panels through participation in decision-making and sharing of benefits. Improve the benefit linkage mechanism, establish a fair and reasonable benefit distribution mechanism, and ensure that the village collectives and farmers can steadily and continuously share the value-added benefits brought about by the subsequent development of the industry. Form a close community of interest, through policy guidance and market mechanism, promote enterprises, village collectives and farmers to form a close community of interest and achieve common development.

(2) Strengthening the construction of talent teams

Establish a team of management talents, through the 'pass on' mechanism, to cultivate a group of rural collective economy management talents who know how to operate, know how to manage, and are good at innovation. And improve the incentive mechanism, the establishment of "basic salary + performance incentives", stock options, job dividends and other incentives to stimulate the vitality and creativity of talents. Construct the talent work mechanism, from the talent demand judgement, evaluation, attract training to incentives, the formation of the whole chain of talent work mechanism, for the development of the forest plate to provide a solid guarantee of talent.

(3) Inherit the history and culture, and protect the ecological pattern.

Establish the concept of "guarding" the whole area and territory, strengthen the inheritance of history and culture, and protect the ecological pattern of the background. Firstly, protect historical and cultural relics, and strictly follow the laws and regulations on cultural relics protection to protect historical buildings and old and famous trees in the woodland. Secondly, create special cultural spaces, create

public spaces such as places of worship and activity squares to provide a carrier for cultural inheritance. Thirdly, to build diversified ecosystems, enrich the plant species in the forest disc and maintain ecological diversity; respect the natural form of the water system and maintain the ecological function of the river.

## 6. Conclusion and Prospect

The protection and development of Linpan in Western Sichuan is a systematic project that requires us to start from many aspects. Only by effectively protecting its traditional spatial structure and cultural value, fully exploring its industrial potential and strengthening infrastructure construction can we promote the sustainable development of Linpan in Western Sichuan and contribute to its rural revitalisation. In the future, we will continue to pay attention to the protection and development of Linpan in Western Sichuan and contribute more wisdom and strength to rural revitalisation.

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