

Investigation of the New Rural Construction in Typical Western Area - A Case Study in the Hilly Area

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Abstract

"Thirteen Five" period is an important period to accelerate economic development in the western region and build a moderately prosperous society. It is also a crucial period of modern agriculture and new rural construction. The hilly area is the most typical hilly area of China, with regional typical and representative features. Investigation of the new rural construction in the hilly area is conducive to build "eco-village" and has some practical and reference to the Typical Western Area. This paper analyzes how to successfully carry out the new rural construction in the background of complex topography and diverse natural resources through the research on the present situation of rural areas in the hilly areas.

Keywords

Typical Western Area, the Hilly Area, the New Rural Construction.

1. Introduction

With the central and local governments continuously to strengthen the new rural construction, the rural area in Sichuan has entered a rapid development and construction phase^[1]. More and more rural planning projects have made a series of results, while are still showing serious absence of circumstances on the aspects of production and life, history, culture and values of rural areas, such as the lack of regional co-ordination, "thousand villages side", lack of public communication space and rural ecological landscape disappeared.

The hilly area is the most typical hilly area of China, with regional typical and representative features. The region is vast with different economic development levels and mass country residual labour. Due to the constraints of the natural topography, villages in the area are built by the mountain, closely integrated with the natural environment, affected by a variety of natural disasters. At the same time, the forest coverage rate of hilly areas is the lowest in Sichuan and the ecological environment is fragile. Therefore, the investigation of the new rural construction in the hilly area is conducive to build "eco-village" and has some practical and reference to the Typical Western Area^[2].

2. Status in the Hilly Areas of New Rural Construction

2.1 the Basic Situation in Hilly Areas

2.1.1 Overview in the Hilly Areas

The hilly area has an area of about 84,000 square kilometers with west until the Longquan Mountain, east to Huayingshan, north until Daba Mountain, south to the south of the Yangtze River.[3] In 2013, the population of the hilly area is 53.309 million, accounting for 58.4% of the province's total population. The agricultural population of the hilly area is 40.612 million, accounting for 62.5% of the province's agricultural population and 76.2% of the total population in the hilly area. The GDP of the hilly area is 11964.1 hundred million yuan, accounting for 45.2% of the province's GDP. The agricultural output value of the hilly area is 335.82 hundred million yuan, accounting for 60.6% of the

province's agricultural output value and 28.1% of GDP in the hilly areas. The cultivated land of the hilly area is 2.296 million hectares, accounting for 57.5% of the province's cultivated area. The hilly area has local fiscal revenue 44.34 billion yuan and 179.14 billion yuan of financial expenditure.

From the above data we can see that the construction of new rural areas in the hilly area has the typical representative of the western area. First of all, it has a large agricultural population in the hilly area and is a typical inland hilly and mountainous area. Secondly, the agricultural productivity is low, with 76.2%t of the agricultural population producing only 28.1% of the output value. From the fiscal revenue and expenditure in the hilly area, the fiscal deficit of expenditure is higher than that of income.

2.1.2 the Geographical Scope in the Hilly Region

The hilly areas include Zigong, Suining, Neijiang, Nanchong, Guang'an, Ziyang six cities and some counties (county-level cities, districts) of Chengdu, Luzhou, Deyang, Mianyang, Leshan, Meishan, Yibin, Dazhou, Ya'an, Bazhong ten Cities in the administration, a total of 69 counties (county-level cities, districts) (Fig.1,Table.1).

Table.1 the Hilly Area Administrative Division

Prefecture-level Cities	Districts	Counties	County-level Cities
Chengdu	Longquanyi	Jintang, Pujiang	
Zigong	Ziliujing , Gongjing, Da'an, Yantan	Rongxian, Fushun	
Luzhou	Jiangyang, Longmatan, Naxi	Luxian	
Deyang		Luojiang, Zhongjiang	
Mianyang	Youxian	Zitong, Santai, Yanting	
Suining	Chuanshan,Anju	Pengxi, Shehong, Daying	
Neijiang	Shizhong District, Dongxing	Zizhong,Weiyuan,Longchang	
Leshan	Wutongqiao	Qianwei, Jingyan	
Nanchong	Shunqing, Gaoping, Jialing	Nanbu, Xichong, Yingshan, Yilong, Peng'an	Langzhong
Meishan		Renshou, Danleng, Qingshen	
Yibin	Cuiping, Nanxi	Yibin, Jiangan, Changning, Gaoxian	
Guang'an	Guang'an, Qianfeng	Yuechi, Wusheng, Linshui	Huaying,
Dazhou	Tongchuan, Dachuan	Xuanhan, Kaijiang, Dazhu, QuXian	
Ya'an	Mingshan		
Bazhong	Bazhou	Pingchang	
Ziyang	Yanjiang	Anyue, Lezhi	Jianyang

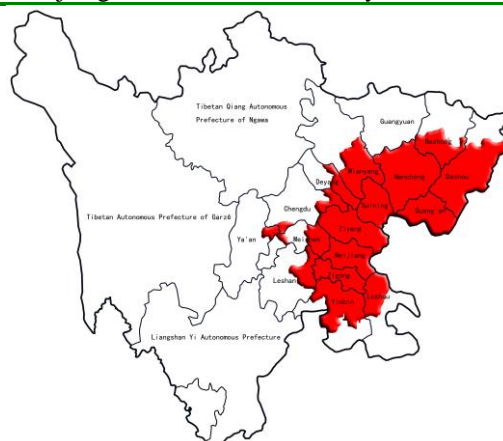


Fig.1 the Hilly Area Administrative Map

2.2 New Rural Construction Characteristics in Hilly Areas

2.2.1 Natural Geographical Characteristics

(1) Hills widespread, valleys aspect

Hilly areas significant geographic characteristic is hilly widespread with valley aspect. It is the concentrated distribution area of Sichuan hills. After the Jialing River, Fujiang River, Tuojiang River and its tributaries cutting, the surface is hilly and circuitous valley. The height is in commonly 250~250 meters above sea level. Level difference is 50~100 meters. [4]

(2) Enough heat, precipitation shortage

Another characteristic of the hilly areas is that the heat is more enough and the precipitation is short. It is the high heat area of Sichuan Province with the annual average temperature of 16-18°C and the annual frost free period of 280-350 days. The annual precipitation is only 900-1000 mm. It is one of the famous Sichuan arid regions where the frequency of spring drought is up to 60% [4].

2.2.2 Social and Economic Characteristics

(1) Population

The hilly area has a large agricultural population. In 2013, the total population is 53.309 million, accounting for 58.4% of the total population. Among them, the agricultural population is 40.612 million, accounting for 62.5% of the province's agricultural population and 76.2% of the total population in the hilly area.

(2) Large Economic Output

The production value of hilly area has an important position with 11964.1 hundred million yuan, accounting for 45.2% of the whole province in 2013. Among them, the primary industry is 2069.4 hundred million yuan, accounting for 61.3% of the province. The secondary industry and the tertiary industry are 6863.0 and 3031.6 hundred million yuan, accounting for 49.3% and 33.1% of the province.

(3) Agricultural Economic Characteristics

The hilly area has 60% agricultural population and cultivated land in the province. The agricultural economic characteristics are outstanding. In 2013, it is the main agricultural producing area of the province with the agricultural output value accounted for 60% of the whole province.

2.2.3 Spatial Characteristics

(1) Small-scale Village

The landform of the hilly area is complex with hilly widespread and valley aspect. It is not conducive to the formation of large-scale villages. The villages are mostly small-scale with scattered distribution.

(2) Integral and Dispersed Distribution

Village distribution is closely related to the natural environment. Macro geographical condition is the main reason for the formation of the village, and all kinds of micro conditions also have a great impact on the village. The hilly area is divided into separate spaces and land areas by the hilly terrain. The overall distribution is integral and dispersed distribution. It is advisable to get together and to disperse. Generally speaking, integral distribution is suitable for the terrain relatively flat while the dispersed distribution in complex terrain.

(3) Spatial Pattern

The spatial pattern of the village is divided into plane structure and space structure. The plane structure is the overall layout of village, including the layout of the streets, houses, rivers, public space, matter and space and other substances and spatial layout elements. The space structure is the relationship between architecture, topography and building volume of village, especially the most

intuitive village skyline (Fig.2). The combination of plane structure and space structure forms the material basis of the village form and shapes the spatial pattern of the village.



Fig.2 Village Skyline

3. Problems of the New Rural Construction in the Hilly Area

3.1 Lack of Characteristic in Industrial Development

In the hilly area, agricultural production conditions are weaker. The agricultural production pattern is crop-based and supplemented by cash crops. The traditional agricultural economic model has high cost and low efficiency, and can't meet the needs of social development. [5]

The new urbanization plan encourages the new rural construction to get rid of the traditional agricultural model to guide the rural industrial diversification, leading to the phenomenon of mass convergence in rural areas and lack of its own characteristics industry. At present, the new rural planning and construction does not take into account the differences between urban and rural resources and system characteristics, according to the urban planning model to build rural areas, ignoring the characteristics of rural areas, agricultural or unique natural landscape and historical and cultural heritage and other tourism resources, leading to lack of characteristic in industrial development.

3.2 Lack of Local Characteristics in Space Shaping

In the hilly area, village context is the continuation and development of long history, which has unique characteristics, carrying the regional culture of one side of the water. But the new rural construction tends to ignore specific features and cultural connotations, resulting in the similar and stereotyped village. It is a problem to be solved that how to make full use of elements of buildings, mountains, streams and rivers, fruit and rice paddies, shaping the characteristic space.

3.3 Lack of "Ecological Village" Construction and Protection Mechanism

Hilly area has a large number of ecological villages, but the country does not put forward the concept, development model, evaluation index system and protection measures in the "ecological village" construction and protection. On the contrary, the historical and cultural village's selection and protection work has invested a lot of human, financial and material resources. Therefore, it is of great significance to build a ecological village construction and protection mechanism for the hilly area, southwest and even the whole country according to the historical and cultural village's selection mechanism and conditions.

3.4 "Ground" to the Destruction of Sloping Fields Landscape

The hilly area has a complex terrain, showing the level of scattered situation, having rich landscape and mountain rolling. But the "ground" (Fig.3) will lead to the waste of good conditions of the natural terrain, not forming the sloping fields landscape and destroying the original natural environment.

The vegetation landscape and ecological landscape resources are abundant in hilly area, but due to the lack of flexible use of hilly terrain and surrounding environment, the new rural construction does not fully play its multi angle into the landscape of hilly areas, resulting in the lack of rural landscape features.



Fig.3 the Ground Treatment

4. Inspiration and Thinking

4.1 the Establishment of the "Eco-village" Evaluation and Protection System

The hilly area is located in the area of terrain and landform, ecological sensitivity, the frequency of natural disasters. The unique natural geographical conditions form the special rural space mark. The new rural areas in the hilly region of Sichuan Province have special ecological characteristics. However, the policy measures of the "eco-village" protection are slightly less, so it is suggested that the state establish a "eco-village" protection evaluation system.

4.2 Highlighting the Characteristics of Rural Memory Space

Memory space is a place to retain and reproduce the collective memory. It is a group of memory place because of the will or the baptism of time. Rural memory space is the place where the villagers organize public activities, daily communication and information exchange. In the hilly area, the countryside and village life are the region's unique design elements, which are the unique memory spaces. Therefore, it is important for the recognition and belonging of the villagers by highlighting the characteristics of rural memory space.

5. Conclusion

Based on the investigation of the rural areas, the paper studies how to carry out the new rural construction in the background of the complex and natural resources. Through investigation and research on the open space, the ecological environment, the memory location and the landscape of the village, the suggestion for the new rural construction in the hilly area is put forward. In the new rural construction of the hilly areas, it is important to concern about the rational order of planning, and also to respect and continue the growing process of rural areas, the context of the village, the maintenance and the characteristics of the village.

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