Vol.1 No.5 2020
https://doi.org/10.37420/j.cer.2020.057
Communication & Education Review

Analysis on the Planning Strategy of Rural Human Settlement Environment—Taking Jialing Village, Luoshui Town as an Example

He Li*
School of Art and Design, Guangzhou City Construction College, Guangzhou, China
*Corresponding author, e-mail: helijqb@163.com

Abstract: *Based on the analysis of the existing problems in the planning of Jialing village, Luoshui Town, this paper puts forward the strategies for improving the living environment of Jialing village according to the key points of the planning, in order to provide reference for the path of rural planning in Rural Revitalization.*

Key words: *Rural revitalization; Rural human settlement environment; Planning strategies*

Introduction

Rural Revitalization includes many fields, such as ecological protection, industrial revitalization, rural construction and so on. The win of natural landscape is only one aspect of Rural Revitalization. Through the rational planning of natural landscape, it can effectively improve the living environment, enhance the livability of villages and towns, improve the economic benefits of villages and towns, so as to realize the revitalization of villages. In the field of rural construction in China, it is not mature, and there is not much practical experience to reference. Villages and towns are greatly affected by urban construction. In addition, some villagers have limited knowledge and culture level, and weak aesthetic ability, which leads to imitate the city when many villages are building. So this leads to make the villages lack the original rustic sense that uniques to the countryside, and make the characteristic culture suffer a certain degree Destruction.

Existing Problems in the Planning of Human Settlements in Jialing Village

Jialing village is located in Luoshui Town, Shifang City, Deyang City, Sichuan Province, northwest of Sichuan plain, 12km away from Luoshui town. Luoshui town belongs to half mountain and half dam, with high mountains in the northwest and plain in the southeast, with the average altitude of 650 meters and forest coverage rate of 39.6%. Its climate is subtropical monsoon climate with abundant rainfall, humid climate, four distinct seasons, no severe cold in winter, no hot summer, annual average temperature of 15.7 °C, annual sunshine of 1257.3 hours, and annual average rainfall of 1095.3 mm. With abundant rainfall and mild climate, it is suitable for the growth of a variety of crops, mainly including rice, wheat, corn,rape, edible fungus, and garlic as the main cash crop, furthermore there are vegetables and fruits in all seasons.

Vol.1 No.5 2020
https://doi.org/10.37420/j.cer.2020.057

There are 20 villager groups in Jialing village, with a total population of 3877 and 1057 elderly people over 60 years old. Due to the development of urbanization and industrialization, young and middle-aged people leave the countryside for urban employment. Women, children and the elderly become the main population structure of rural left behind, and the left behind elderly become the main force engaged in agricultural production.

Imperfect infrastructure

The infrastructure of Jialing village is not perfect. Taking the road as an example, the road classification is not obvious, with the chaotic grade, and there is no clear traffic flow line structure. The branch roads are all the broken roads connecting some farmers, which lacks systematic organization connection with the main roads. Some roads are gravel or mud stone roads, which are muddy in the rain, resulting in having difficulty when the parallel and affecting the village landscape environment; Some roads are narrow in width and there is danger in passing; in the current planning area, there is no clear parking facilities, and most vehicles are parked on the side of the road, which affecting the traffic.

Other aspects of infrastructure construction are also not perfect. For example, there is no waste treatment plant in the village, and the garbage collection point fails to collect garbage according to the regulations. So the environment is poor. The garbage collection point in the village does not play its corresponding role, and the villagers' garbage collection and classification awareness is weak.

Single industrial structure

At present, the agriculture of Jialing village is still dominated by traditional agriculture. The climate in the village is suitable for the growth of various crops, mainly producing rice, wheat, corn, rape and edible fungi. The main economic crops are purple garlic, which is more than 2500 mu in total. The third group and some areas in the village have great potential for modern agricultural development, with large areas of kiwifruit, fig and other economic crops planted. The main economic income of the village is garlic industry, but it is faced with problems such as too long planting time, serious diseases and pests, defects of traditional planting mode, etc.; the villagers are eager to adjust the industrial structure, introduce a variety of economic crops, and change the conventional planting mode.

The industry of Jialing village is relatively weak. After the completion of the biogas station near group 4, now it is idle due to the lack of raw material supply; the cinder yard beside group 10 railway has advantages in transportation and has a good development, but has certain damage to the ecological environment and landscape.

Lack of public service facilities

The public space of Jialing village is extremely scarce. There are only two small activity squares in the north and South on the main road, equipped with sports and leisure facilities, but few villagers use them. Instead, they often gather in the street space spontaneously that formed at the intersection of Linpan and road, such as the green shade under the forest and the dam in front of the courtyard. In summary, now the problems are as follows: the number of public space is extremely lacking, and the infrastructure is lacking, the villagers

not having enough communication space and activity space; the public space in the north and south has poor connection, with more overlapping in functions, and irregular distribution; the landscape status of the public space is poor, the equipment and facilities are scattered, and there is no supporting green plants, resulting in poor space atmosphere and shading effect. The supporting facilities are old, which can't meet the needs of basic activities. At the same time, the demands of the elderly, children and other special groups are ignored.

Strategies for Improving the Living Environment of Jialing Village

In order to build a beautiful and livable Jialing village, which combined with the strategic opinion of rural revitalization, the design of the village is based on the ecological design, romantic design and the design idea of from the inside to the outside, and on the premise of not damaging the local natural environment.; in the composition used the asymmetrical, natural and romantic form to layout, pay attention to the quality connotation of the landscape environment and the characteristics of plant cultivation itself. On this basis to carry out landscape planning, so we put forward the following strategies for improving the living environment of Jialing village.

Improvement strategy of infrastructure

A. Road traffic strategy

Depending on the existing roads and the 12 production groups that have been formed, each group area must be connected by roads. Based on the current terrain and the structural characteristics of the road, it is suggested that the road should be arranged radially as a tree road, and a circular footpath should be set to improve its overall structure and the accessibility of the road. The main line network of the pedestrian system should be defined by the diversion of people and vehicles. It is suggested that the internal traffic is divided into carriageway and multi-functional footpath, except for Tianling West Street in the north of the base and the transit road Beijing Avenue (Guangqing Road),.The overall structure forms a road network pattern of "one main axis, multi network". One main axis: it is to widen the road with Hongyan canal to form the main carriageway of Jialing village; multiple networks: they are to organically connect the pedestrian system in each area of the village.

a. Widen the original road and improve the road quality. In order to solve the problem that it is difficult to pass the vehicle due to the narrow carriageway, the road can be widened or add the additional passing lanes; the quality of the road can be improved, with the gravel or mud stone road are re paved as cement road.

b. Increase of road facilities. Setting up road protection fence improve its safety, and disposing the garbage on both sides of the road keep the roads clean and tidy; at the same time, adding street lights, street trees, landscape greening and other roads on both sides of the road improve the road landscape; besides, setting up a parking lot in the neighborhood of the settlement in a unified way integrate concentration and dispersion.

c. Pedestrian and vehicle diversion, add pedestrian greenway. Adding sidewalks on one side of the existing carriageway, and at the same time, layying rural scenic roads in the farmland landscape for the villagers or tourists have in-depth experience; setting up circular recreational footpaths connect the traditional forest

Vol.1 No.5 2020
https://doi.org/10.37420/j.cer.2020.057

plates in the village.

B. Sewage treatment strategy

It is necessary to adjust measures to local conditions, adopt the governance mode of combining centralization and decentralization, and need to select the technology and product equipment of reliable, stable, economical and applicable from the reality, and also confirm rationally the treatment scale and standard. In the later stage of the planning, the corresponding municipal pipelines will be laid down along the road in a unified way, and added a sewage pipe network to collect the domestic sewage in the village. In order to eventually discharge it to the sewage treatment facilities for treatment. At the same time, open rainwater ditches shall be set up along the road to discharged into the receiving water body or farmland according to the principle of gravity flow.

C. Layout of waste treatment facilities

Garbage bins shall be set up in each public activity space of the village, as well as at the edge of the sightseeing footpath and road. In the area where the flow of people is relatively concentrated, garbage bins shall be set up every 100m, and be clearly marked for easy identification. In the vicinity of each settlement, the site shall be selected uniformly, to set up the garbage collection points, and garbage shall be classified and treated, and more sanitation workers shall be arranged to clean up regularly.

D. Set public toilets

Public toilets are set up in the public areas of the village, and ecological toilets are set up in the main landscape areas which control the coordination between the appearance and the overall environment. Ecological toilets are recommended to use ecological materials such as wood and bamboo that are easily accessible locally; in addition, public toilets can be set up in combination with other public buildings and existing settlements in the village to meet the needs of future development.

Industrial development strategy

Efficiency improvement of the first industry: mainly includes adhere to the basis of ecological agriculture, increase mechanized and intelligent management, introduce new agriculture, enrich agricultural production types, and open up markets.

A. Adjust the ratio of basic industries

We will appropriately reduce the proportion of basic crops such as rice and corn, introduce more high-value crops, and adjust the economic structure to improve returns.

B. Introduce of new technologies

Increasing intelligent planting and management technology to activate industrial vitality with high efficiency production.

C. Build excellent agriculture

Combine the secondary and tertiary industries, building a complete industrial chain, with garlic, figs and other high-end vegetable & fruit as the core, and relying on Internet +, create experience streamline, production streamline and online offline sales platform.

Add Second industry: in combination with the current first and third industry planning gradually extend the development of second industry function, and establish supporting agricultural products processing and a complete industrial chain.

A. Increase the processing industry of agricultural and sideline products

Actively introducing new ideas and new ideas extend the industrial chain of agricultural products. at the same time, build high-quality brands through fine processing, build the reputation of Jialing agricultural village, and attract more business opportunities.

B. Village collective intensive development

Through promoting land circulation and scale management, change the original scattered planting situation, reduce the pollution of polluting enterprises to the environment. Pollution-free and green organic agricultural products base should be promoted, developing with cooperative and intensive economy.

Develop third industry : in combination with the current needs, implement the relevant industries of production and living needs in the village, and introduce new industries such as rural tourism ,rural pension, and activate the countryside.

A. Vigorously develop agricultural leisure tourism

In combination with the local ecological agriculture, add the agricultural leisure and tourism industry and related service industries; and set the public facilities such as Agricultural Expo Park and agricultural experience base, to extend the agricultural leisure and tourism industry and achieve the goal of enriching the people through agricultural leisure and tourism.

B. Create rural style homestay

Relying on Shifang culture and forest plate characteristics, the concept of health care is introduced into the rural hinterland. High-end residential quarters and elderly care communities are set up in top-quality forest plate. Meanwhile, relevant medical and service facilities are provided to focus on attracting the elderly groups in surrounding cities and towns to meet the market demand.

Improvement strategy of public service facilities

According to the actual needs, increase the public space appropriately to drive the development of the whole village with the vitality core; according to the district proportion set up the public space with multiple themes

and functions to meet the needs of life, leisure, assembly and development; setting up the landscape footpath to connect the main public space and forest plate, as the link of the neighborhood relationship, to activate the public life and collective memories of the village, and gather people again Heart. Updating infrastructure and equipment, adding landscape plants and detachable structures, to enrich the sense of space experience.

Conclusion

In the process of rural revitalization, on the one hand, it is necessary to protect the overall environment of the village. on the other hand, it is necessary to enable the villagers to enjoy the living standards of the urban people. On the basis of sustainable development, the reality is "prosperous industry, livable ecology, civilized countryside, effective governance and rich life". For Rural revitalization, the transformation of human settlements is the basis, while maintaining the rural characteristics, to achieve local transformation oriented rural planning.

Reference

Chen, N. (2019). The role and method of rural landscape construction in the context of Rural Revitalization Strategy. *Modern Horticulture*, (11).

Luo, Z.Y. (2018). On the planning strategy of rural human settlements improvement in the context of Rural Revitalization. *House*, (03), 161.

Liu, H. (2018). A preliminary study on the new rural environment improvement planning under the "Rural Revitalization Strategy". *China Construction*, 155(04), 99-100.

Song, Z.Z. (2018). Rural landscape design from the perspective of environmental aesthetics. *Design*, 286(07), 52-53.

Yang, X.J., Yuan, Z., Zhang, J.J., & et al. (2015). Conceptual design of rural landscape environment based on Intangible Cultural Heritage Inheritance and living protection—Taking Guzhu village in Changxing County as an example. *Design*, (19), 16-18.