# Research on the Application of PPP in the Development and Construction of Traditional Rural Settlement in China

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**Keywords:** PPP Mode; Traditional rural settlement; Operation Mode.

**Abstract:** PPP mode is an effective mode to integrate social capital and various factors of government investment. It plays an important role in the development of various industries in China. It is gradually standardized and legalized, and has great advantages in the development and construction of traditional rural settlement. First of all, this paper states the concept and characteristics of traditional rural settlement. Next, it focuses on the concept, operation mode and advantages of PPP mode. Then, it studies several types of PPP operation mode, which are suitable for traditional rural settlement development and construction. Finally, the paper concludes the implementation mechanism of PPP mode in traditional rural settlement development and construction.

#### 1. Introduction

The traditional rural settlement is an important part of the traditional culture of the Chinese nation and has a long history and culture, a distinctive folk culture and a unique architectural culture. Traditional rural settlements are accelerating their demise in the process of accelerating the development of urbanization in China. In recent years, the PPP model has been promoted in many fields, and rural construction and heritage protection have also begun to be applied. The model can effectively solve the problem of fundraising and alleviate the conflict between the public welfare goal and the enterprise profit in the current development of traditional rural settlements.

### 2. Overview of Traditional Chinese Rural Settlements

### 2.1 Concepts and Classifications of Traditional Rural Settlements

Settlements are an extremely important part of the human history development system, have their own unique forms, and are constantly evolving. "HanShu Gouxuzhi" records: "Harmless for a long time, and it will be built into a house, then become a settlement." Li Daoyuan, Northern Wei "ShuijingZhu Fengshui": "The settlement is known as a barren, and it is still known as Huang Mailman." [1] The ancients had different understandings of the settlement, which is the general name of all kinds of settlements in human society. It not only includes all kinds of houses, buildings and lives, production facilities but also includes people living, rest, production and other social activity places, which can generally be divided into rural settlements and urban settlements.

Rural settlements are the main settlements for agricultural economic activities. Rural settlements include roads, green spaces, river ponds, farmhouses, warehouses, livestock sheds, specific environments, professional production ancillary facilities, etc. Urban settlement refers to the settlement which is dominated by non-agricultural activities and whose population is larger than that of rural and market towns. It usually includes large areas of housing, dense roads, all kinds of shops, schools, hospitals and clinics, cinemas, production facilities, living facilities and cultural service facilities.

Under the influence of natural environment and human activities in a specific historical period, traditional rural settlements are buildings, facilities and places related to agricultural economic

activities, such as residence, life, rest, production and so on, which record rich social information such as history, culture, art, thought, economy, morality, system, customs, habits and so on.

## 2.2 Status Quo of Traditional Rural Settlements in China

### 2.2.1 The Unique Culture

Ancient Feng Shui is a study of the topography, landform, geology, hydrology and orientation of the land, and explores the method of building a harmonious space and environment between man and nature. The layout and location of each traditional rural settlement are set according to local conditions and their historical and cultural characteristics and their characteristics of the times. It is non-repeatable.

### 2.2.2 Complex Contradictory Complex

Social development promotes scholars hope that villagers in traditional rural settlements can enjoy the convenience brought by modern lifestyles, but historical protection scholars hope that traditional rural settlements will not be affected by the development of urbanization and preserve the original state of the country. The contradiction between the development and protection of traditional rural settlements has always existed. The villagers of different settlements have different views on them, and it is difficult to find a complete solution in the near future.

### 2.2.3 Lack of Funds for Conservation and Development

Today, there are too many traditional rural settlements in China that need protection and development. The protection and repair of old buildings, the improvement of the comprehensive environment, and the protection of intangible cultural heritage all require too much money. Generally, villagers cannot afford high maintenance costs. Although some governments have paid more attention to the development of traditional rural settlements and financial allocations have increased recently, they still cannot solve the fundamental problems.

### 2.2.4 The Problems with Existing Financing Methods

Most of the funds for the development of traditional rural settlements in China come from the government, but the excessive demand puts tremendous pressure on the government, resulting in many projects that cannot be sustained or inoperable; since all parties in the public-private partnership have funds, the parties They are seeking their own interests, and as a result, they have produced various complicated contradictions. In the operation mode of enterprises contracted alone, there is often a phenomenon that investment funds cannot be continuously supplied.

### 2.2.5 Speed of Extinction

Under the influence of globalization and urbanization, the original features and patterns of historical blocks, traditional buildings, folk customs and other cultural heritages in some traditional rural settlements in China have been constantly changing and dying. The villagers are constantly demolition or renovation of old houses in pursuit of modern living spaces and lifestyles.

### 3. Overview of the PPP

### 3.1 The Concept of PPP

Public-Private-Partnership (PPP) means that the government and the private sector cooperate under the relevant concession agreement, sign a contract treaty for building infrastructure and providing urban public services, to clarify the responsibilities and rights of the two parties, and to establish full cooperation. The stable relationship between risk sharing and benefit-sharing ensures the smooth completion of the project.

### 3.2 The Operation Ideas of PPP

The PPP is a new model for the organizational relationship of various organizations in the project life cycle. It is a complete concept of project financing. It is a form of cooperation between the

government and enterprises for a win-win or win-win situation and can bring more benefits than working alone. The operation idea is shown in Figure 1. Private capital has the characteristics of flexible operation and fast decision-making. After fully entering the tourism industry, it will effectively seize development opportunities and improve the comprehensive capabilities of various industries.

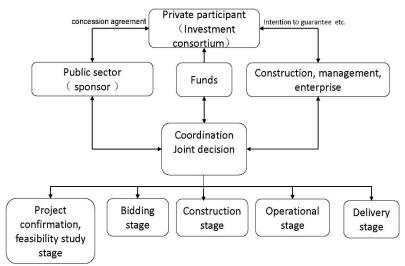


Figure 1. PPP operation ideas

## 4. Significance of Applying PPP in the Development and Construction of Traditional Rural Settlements

Due to the large investment and long period of development of traditional rural settlements, the pure market operation is difficult. On the basis of ensuring the policy fund support of the government, the development of traditional rural settlements should use PPP to attract the funds and social capital of financial institutions, establish a platform for the financial systems of all parties to connect with each other, realize the sharing of interests and share with each other, and promote the development and operation of traditional rural settlements.

## **5. PPP Operation Mode in the Development and Construction of Traditional Rural Settlements**

#### **5.1 BOT**

Build-Operate-Transfer (abbreviated as BOT, ie build-operate-transfer). BOT is the government's mortgage for a certain period of infrastructure management rights, access to project financing, privatization of operating infrastructure. Through the project bidding, the sponsor will obtain financing, construction and operation of the project through the project company after obtaining the concession of the development project. During the concession period, the promoters use the preferential conditions provided by the local government for the development and operation of the project, recover the funds for repayment of loans, and obtain profits; when the concession period is reached, the project will be transferred to the government without compensation; during this period, the investment company usually asks the government to guarantee the lowest rate of return. The operation idea is shown in Figure 2. Xiaoliuzhangzi Village of Chaoyang City, Liaoning Province, through BOT mode, realizes financing and attracting investment, establishes enterprises, cooperates management, invigorates land, promotes agricultural production "receiving second yield, connecting three yields", realizes the purpose of "laying eggs by borrowing chickens", and successfully promotes the leap-forward development of rural areas.

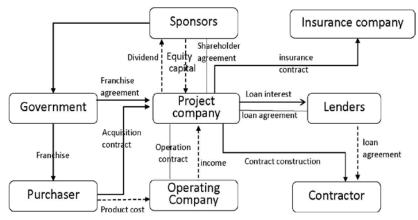


Figure 2. BOT operation ideas

### **5.2 BOO**

Building-Owning-Operation (abbreviated as BOO, ie build-own-operate). Under the BOO, the hardware, software, equipment and systems of the market belong to the enterprise. The enterprise invests and undertakes the design, construction, management, maintenance and operation of the project. The government is responsible for the overall coordination, the requirements and the construction of the external environment. The cost of using enterprise payment equipment and systems reflects the integrated operation of government coordination and enterprise operations, as shown in Figure 3. In December 2016, a group of Erdu Village, Jiangbei Street, Fuling District, Chongqing Municipality and the "Fuling 1898 Mustard Culture Town" project of the third group of Hanjia Village started construction, using the "investment-construction-operation-transfer-transfer" model of cooperation between enterprises and the government. The government invested 270 million yuan [2], and the investment of the project undertaker accounted for 56.73% of the total investment.

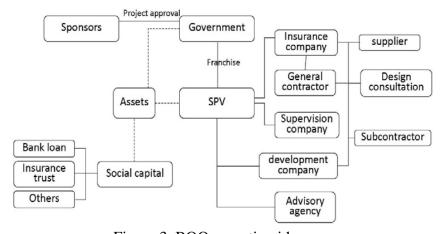


Figure 3. BOO operation ideas

#### **5.3 TOT**

Transfer-Operate-Transfer (abbreviated as TOT, ie handover-operating-transfer). The TOT is a state-owned enterprise or government that transfers the right to operate or property rights within a specified period of time to a successful project, and transfers it to the investor in a lump sum, obtaining funds from the investor at one time, and financing other new projects. After a specified time to operate the project and obtain a reasonable return, after the expiration of the contract, the investor will return the project to the state-owned enterprise or government, and use it abroad, as shown in Figure 4. Unlike traditional B0T models and financial leasing, it is suitable for projects with stable returns and long periods. At present, the TOT is mostly used for the construction of large-scale public facilities. For example, the total length of the Taizhou coastal expressway consisting of the Yueqing Bay Bridge and wiring project in Zhejiang Province, the Taizhou Bay

Bridge and the wiring project, the Sanmen Bay Bridge and the Taizhou section of the wiring project are about 147 kilometers, estimated total investment of about 39.9 billion yuan [3], divided into four tenders to try to use the TOT.

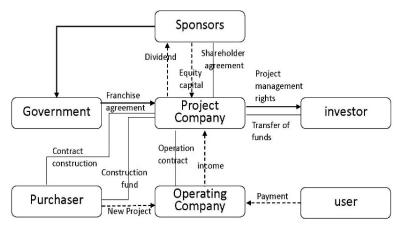


Figure 4. TOT operation ideas

## **5.4 Comprehensive Comparison of Various Modes**

BOT, BOO, and TOT have their own characteristics, advantages and disadvantages (as shown in Table 1). Which mode to choose? The characteristics of traditional settlement projects, the situation of local governments and enterprises, and the comprehensive status of various resources should be fully considered.

Table 1. Comparative analysis of different models

Type s	process	Government	Investor	Risk	Applicable project
вот	Construction-operation-transfer	Franchise support	Construction , operation, handover	mediu m	Small and medium-size d settlement projects that can be independently developed in a short period of time
ВОО	Construction-ownership-operatio n	Payment fee	Construction , ownership, operation	high	Large-scale settlement project with long cycle and large investment
ТОТ	Handover-management-transfer	Construction , transfer	Provide funds, operations, transfer	low	Relatively independent public facilities construction projects such as roads, bridges, and rivers

## 6. Implementation Mechanism of PPP in the Development and Construction of Traditional Rural Settlements

## **6.1 Clarify Government Functions and Develop Management Practices**

The PPP mode project of traditional rural settlement involves governments at all levels and relevant departments of all kinds of industries. The government should focus on supervising the access, construction, cost, management and other related aspects of the project, so as to promote the initiative of each main body, so that the interests of each capital side of the project can be protected and balanced, so as to effectively promote the progress of the project, rather than just the investors.

# **6.2** Introduce Third-party Regulatory Agencies to Strengthen the Participation of Cultural Relics Management

The development of traditional rural settlements covers all disciplines and disciplines. Members of the regulatory body should have experts in the fields of cultural relics, economy, planning, management, and law to jointly supervise the operation and results of related fields. In addition to the part of the government's supervision work, the main supervision work is undertaken by a third-party regulatory agency. Establishing a third-party regulatory body in accordance with relevant laws, independently supervising the behavior of social capital and government, defining the areas of competence by law, and constraining the object of supervision, the supervision process is not subject to abnormal interference by the government.

### 6.3 Establish a Scientific Evaluation System

In order to ensure the smooth operation of the PPP model in the development of traditional rural settlements, from the project preparation stage, the relevant government departments should strictly review the feasibility report, credit level, business strength, and operation management ability of the project entry party, and verify the operation of the design party and the construction party. Level and construction quality, and a reasonable review process; government departments should establish a mid-term evaluation method for the project. In the face of the PPP mode operation period of more than ten years, the mid-term evaluation should be conducted every three to five years. It is necessary to propose constructive rectification opinions for the problems that can be adjusted. It is found that there are major problems in the project and should be suspended in time.

### 6.4 Strengthen the Prevention and Control of Financial Risks

To avoid financial and financial risks, we should rationally adjust the term structure of traditional rural settlement PPP projects, reasonably arrange debt maturities, and prevent late payment risks. During the project preparation phase, financial institutions analyze the cash flow of the project and the government's support to determine the repayment period and method supported by the financing method, and guide the participants to deploy the debt maturity structure according to the time limit characteristics of the regional debt, and formulate appropriate financing plans. Strengthening the task of confirming the rights, providing useful collateral for the financing of traditional rural settlement PPP projects, actively developing the pledge loans for contractual management rights, and encouraging financial institutions to guarantee innovative loans.

### 6.5 Establish PPP Project Resource Library, Transparent Project Information

According to the characteristics and maturity of various projects, establish resource pools of reserve, demonstration and execution types; sort out the development sequence of the project, update the detailed information of the project in time, and carry out dynamic management; establish professional departments to feature the project. Guide and provide technical support, and establish a project elimination and exit mechanism to achieve a virtuous circle.

### 7. Conclusion

Traditional rural settlements contain all kinds of material and intangible cultural heritage. The combination of the PPP and such cultural heritage projects will expand new financing models and new development ideas for the development of traditional rural settlements. Local governments use the PPP model to solve the traditional rural settlement development. In the financing issue, establishing a reasonable management mechanism such as supervision, evaluation, and finance, can improve the operational level and efficiency of social capital, and actively and effectively exert the advantages of social capital.

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### References

- [1] Sun Hongjie: Analysis of the Estimation of Time and Space Differences in the Supporting Burden of Rural Households in China (Master, Lanzhou University, China 2010). p.10.
- [2] Information on: http://www.ppp-ol.com/project/show-11707.html.
- [3] Information on: http://www.tzfdc.com/fc/tzcj/201411/54276.html.