

Research on the Application of PPP Model in Agricultural Infrastructure Construction Projects

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Abstract

The conditions of agricultural infrastructure determine the future development of China's agriculture. In the past, agricultural infrastructure projects used financial funds as the main source of funds, but agricultural infrastructure projects have high costs, long cycles, and limited financial funds, resulting in an increasingly serious funding gap. The introduction of the PPP model in the construction of agricultural infrastructure can change this status quo. This mode of cooperation between the government and social capital can reduce the government's financial burden, increase the efficiency of capital use, and accelerate the realization of China's "agricultural modernization" strategy. In the study of the application of PPP mode in agricultural infrastructure construction projects, it is found that there are difficulties in the government, market and project, and this paper will find solutions to these three difficulties.

Keywords

Agricultural infrastructure; PPP model; Dilemma.

1. INTRODUCTION

In the face of the complex international economic environment and the epidemic situation facing China at present, sustainable production and development in agriculture are more important. Agricultural infrastructure is the driving force for agricultural development, so the construction of additional agricultural infrastructure is essential. In the past, agricultural infrastructure construction mainly relied on financial funds, but there are many projects and limited financial funds. In addition, our government encourages social capital to invest in infrastructure, so the cooperation between the government and social capital through the PPP model can be a good choice for agricultural infrastructure construction projects selected. The PPP model is a cooperative relationship established between the government and private enterprises to provide public products. This model makes up for the shortcomings in the public product field, and improves the quality and efficiency of supply in the public service field, injecting new impetus into agricultural infrastructure construction projects.

2. DIFFICULTIES IN THE APPLICATION OF PPP MODEL IN AGRICULTURAL INFRASTRUCTURE CONSTRUCTION PROJECTS

2.1. Difficulties in Government Application

2.1.1. Weak Government Regulation

The implementation process of the PPP model project should strictly follow the regulations, and the government supervision concept is relatively traditional. It lacks management skills for the assets and services provided by the cooperative social capital. The weak government supervision is reflected in the following points. First of all, unbalanced emphasis; the emphasis is on the early preparation and tendering stages of agricultural infrastructure projects, and the

later stages of operation of the project lack supervision. Second, the responsibilities of the regulatory department are unclear, and the supervision of agricultural infrastructure projects sometimes exist chaos in multi-sectoral management or non-sectoral management. In the end, insufficient supervision capacity, due to inadequate PPP project implementation experience, lack relevant personnel and other issues. Government departments have insufficient supervision capacity in the overall operation and maintenance of agricultural infrastructure projects.

2.1.2. Incomplete Laws and Regulations

There is still insufficient experience in the application of PPP mode in China, and there is a lack of uniform and standardized laws and regulations in the application of PPP mode in agricultural infrastructure construction projects, mainly reflected in the following points. First, the legislation is not systematic. It involves a wide range of areas with many participating departments in the field of agricultural infrastructure construction projects. This requires systematic legal norms. At present, China's relevant laws are simple and restrictive, and there are still legislative gaps that affect the application of PPP mode for agricultural infrastructure construction projects. Once again, the regulations are not detailed enough, and the current regulations only deal with PPP. The project provides macro guidance and does not fully cover all aspects of the project construction, operation, transfer and other stages, resulting in various government departments acting independently and lacking legal guidance. In the end, private property rights are not clearly defined. The capital invested by private enterprises lacks a standardized legal definition, which results in private enterprises' rights in projects not being guaranteed by law, which in turn affects the enthusiasm of private enterprises to participate in projects.

2.2. Difficulties in Market Application

2.2.1. Unreasonable Investment Structure

First, the PPP model of agricultural infrastructure construction projects is applied to large-scale projects such as ecological agricultural infrastructure and large-scale water conservancy engineering infrastructure. It has relatively few applications in agricultural education, scientific research, and technology promotion projects. Second, investment projects lack long-term planning. For the sake of political achievements, there is a phenomenon of following the PPP project of agricultural infrastructure construction, lack of long-term planning for the project, resulting in repeated construction of the project, no follow-up social capital support, and project bankruptcy; finally, the lack of inspection of the actual needs of the project investment site deviates agriculture infrastructure construction from farmers' needs. Actual supply and demand are unbalanced, resulting in a waste of financial and social capital.

2.2.2. Insufficient Financing Channels for Private Enterprises

The application of the PPP model for agricultural infrastructure construction projects requires a large amount of investment and a long period of time. Private companies need a lot of long-term financial support to participate in the project, but private companies have relatively simple financing channels. If private enterprises are indirectly financed, Agricultural Development Bank and Agricultural Commercial Bank can hardly provide sufficient funds for private enterprises, and commercial banks are unwilling to provide sufficient loans for private enterprises. Even if they provide, they will attach various conditions to increase the difficulty of private enterprise loans. If private enterprises pass direct financing, because China's strict approval system for issuing stocks, it is difficult to obtain the qualification to issue stocks or bonds through agricultural infrastructure construction projects. Private companies' access to financing channels and financing capabilities affect the success of agricultural infrastructure

PPP projects. The lack of financing channels has affected private companies' enthusiasm for participating in projects.

2.3. Difficulties in Project Application

2.3.1. Imperfect Risk Sharing Mechanism

The application of the PPP model for agricultural infrastructure construction projects will face many risks including financial risks, political risks, and construction risks. Existing projects have incomplete risk identification, vague risk classification, unclear division of risk bearers, and lack of effective risk sharing. The mechanism cannot protect the interests of social capital in participating projects, and affects the enthusiasm for participation. In addition, the government as the supervisory party has an unequal status with the private companies in the entire project. The lack of voice of the private companies in the risk allocation may cause uneven risk sharing, resulting in incorrect income and risks for both parties involved in agricultural infrastructure construction PPP projects.

2.3.2. Unstable Project Income

PPP model in agricultural infrastructure construction projects are applied to public goods or quasi-public goods, occupying a long time, a large amount of funds, and slow return of funds, and private enterprises generally aim at making profits. If the investment project obtains unstable returns or the return rate continues to fall below compared with the rate of return of the same capital investment in other fields, and the country does not have sufficient preferential and supportive policies, private enterprises will rarely participate in PPP projects in agricultural infrastructure construction. Therefore, the main problem facing the application of PPP model in agricultural infrastructure construction projects is that there is no stable and predictable profit mechanism for increasing the confidence of private enterprises in investment projects.

3. SUGGESTIONS ON THE APPLICATION OF PPP MODEL IN THE AGRICULTURAL INFRASTRUCTURE

3.1. Government

3.1.1. Strengthen Government Supervision

The application of the PPP model in agricultural infrastructure construction projects is mainly to increase the supply of public products and meet the needs of society. After the introduction of private enterprises, in order to prevent private enterprises from pursuing only the maximization of benefits and affecting the quality of the project, the government should strengthen supervision. First, in the project bidding phase, the government supervises the entire bidding process, and selects the best project company through bidding, pre-examination, and bid evaluation. Second, in the project construction phase, the government should strengthen supervision on construction costs, management costs, and construction quality. Once again in the project operation stage, the government should supervise the service level and price of the entire project. For the supervision of the entire project, the government can set up special agencies, hire professional talents, formulate a set of perfect supervision methods, and form a system to ensure the effective implementation of supervision measures throughout.

3.1.2. Improve Relevant Laws and Regulations

The PPP model in agricultural infrastructure construction projects should be formulated by applying laws and regulations. First, the current laws and regulations should be detailed. Agricultural infrastructure construction projects are different from other infrastructure projects. Due to the different agricultural development conditions and regions in different regions, additional laws and regulations are required. To resolve legal issues encountered in

projects in different regions. The second is to draw on advanced experience. When formulating relevant laws and regulations, the government can draw on the policies related to the application of the PPP model in infrastructure in other fields, as well as the laws and regulations on the application of the PPP model of agricultural infrastructure in other countries, combined with the actual situation in China and the construction of agricultural infrastructure. Relevant laws and regulations will be improved. Through the improvement of relevant laws and regulations, a fair and just investment environment is created for the application of the PPP model of agricultural infrastructure construction projects, and the confidence and willingness of private enterprises to invest in projects are increased.

3.2. Market

3.2.1. Broaden Financing Channels and Improve Credit Guarantee

In order to broaden the financing channels for agricultural infrastructure construction PPP projects, on the one hand, government departments should do a good job of communication, coordinate financial institutions to open a green credit approval channel for agricultural infrastructure PPP projects, encourage various financial institutions such as insurance companies, commercial banks, fund companies, etc. provide long-term loans for agricultural infrastructure PPP projects. On the other hand, the government should appropriately relax policies, encourage policy banks, and attract foreign governments and banks to provide loans for key agricultural infrastructure construction PPP projects. Government departments can set up special credit guarantee agencies for PPP model in agricultural infrastructure construction projects. According to laws and regulations, clarify the integrity standards and punishment systems of private enterprises, improve the credit guarantee mechanism, and create a good investment environment for private enterprises to participate in agricultural infrastructure PPP projects. .

3.2.2. Choose the Right PPP Project

The application of PPP model in agricultural infrastructure construction projects can be divided into three major categories. One is pure public product agricultural infrastructure construction PPP projects, which have strong public welfare, strong social benefits, high financial funds, and weak willingness of private investment enterprises, such as comprehensive agricultural development and rural road construction projects. The second is the quasi-public goods agricultural infrastructure construction PPP project, which has both public welfare and economic benefits. Private companies are willing to take the initiative to participate, such as rural energy facilities projects and agricultural product market projects. The third is the operational agricultural infrastructure construction PPP project, which mainly creates economic benefits, and private enterprises have a strong willingness to participate, such as agricultural industrialization management projects and agricultural mechanization construction projects. When choosing a project, it should be based on the overall planning of the local government and the practical situation in different regions to choose a suitable project.

3.3. Project Aspect

3.3.1. Reasonably Allocate the Risks of Participating Entities

Compared with other infrastructure projects, agricultural infrastructure projects have a long investment return period, slow investment returns. Moreover, the differences in agricultural progress result in many and complex risk factors for agricultural infrastructure projects. Both the government and the social capital can implement the risk allocation of each participating entity by signing a contract at the initial stage of the application of the PPP model for agricultural infrastructure projects, refine the risks that can be encountered throughout the project, and allocate the undertaking entities. For example: social capital can more effectively control the construction process of agricultural infrastructure projects, and allocation of project

construction risks. The government has more overall control, so political risks can be allocated. For unexpected and uncontrollable risks, both parties can undertake jointly or one party undertakes the other compensate accordingly. This division model is not static. Most of the risks can be allocated reasonably in the early stage of the project. However, new risks may be encountered during the implementation process. The signed risk allocation contract is adjustable. The newly exposed risks of facility projects can be reclassified.

3.3.2. Multi-channel Cultivation of Project Management Talents

The PPP model of agricultural infrastructure projects involves a wide range of expertise, including agriculture, finance, law, risk management, etc., and requires high-level compound talents. At present, China is not sufficient in cultivating talents. Training relevant management talents is not a short-term goal. It will be a long-term plan. China should establish a talent cultivation fund, formulate a cultivation plan, clarify the cultivation goals, strengthen international exchanges, and cultivate talents. Provide financial support and inspection supervision throughout the period. Provide excellent treatment for the cultivation of high-tech talents or imported talents, and strengthen the follow-up continuing education and learning of talents. Through international exchanges and learning, the sound circle of relevant management talents in China can help the agricultural infrastructure PPP model carry out smoothly.

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