



Munich Personal RePEc Archive

## **When will the street lamps enter China's villages? case study in Majia village**

Yang, Yong-Zhong and Lin, Ming-Hua

Business School, Sichuan University, China

1 November 2011

Online at <https://mpra.ub.uni-muenchen.de/34432/>  
MPRA Paper No. 34432, posted 01 Nov 2011 23:11 UTC

# WORKSHOP FOR CHINA CREATIVE INDUSTRIES

SICHUAN UNIVERSITY



---

**WCCI Working Paper Series**

**November, 2011**

---

**WHEN WILL THE STREET LAMPS ENTER CHINA'S VILLAGE?  
CASE STUDY IN MAJIA VILLAGE**

**Yongzhong Yang**

Business School, Sichuan University

**Minghua Lin**

Business School, Sichuan University

---

WCCI-201102

<http://web.cenet.org.cn/web/yyzh116/>

# When Will the Street Lamps Enter China's Villages?

## Case Study in Majia Village

Yongzhong Yang\*, Minghua Lin

(Business School, Sichuan University, China)

**Abstract:** Based on the angle of institution, this paper takes internal institutions and external institutions as the analysis framework. When study the case of the street lamps supply in Majia Village, the paper finds internal institutions will have an important impact on the multi-protagonists supply mode option of rural public goods. As a result, external institutions has certain mandatory, but if lack of internal institutions support, it can't be put in practice effectively. On this basis, the paper, at the level of regional economic development, further analyzes the desirability that current multi-protagonists supply public goods. It presents a concept that is 'dual quasi-public goods'. With reference to multi-dimensional trigger, centrobatic trigger and coordinated trigger, the paper conducts a discussion about the trigger mode of the multi-protagonists supply of the public goods.

**Key Words:** rural public goods; multi-protagonists supply; internal institutions and external institutions; trigger mode

**JEL Classification:** H41, B52

Reference to the development experience of the developed countries which have finished economic transformation (Timmer,1998), China should gradually enhance the investment in rural public goods. The character of public goods decides that the subject of investment is government, but actually, because of the reform of administrative system and financial system, local government has more routine power than financial power in china (Shi, 2005), therefore, financial shortage will occur if rural public goods are only supplied by local government. Under this circumstance, to enlarge the rural public supply, the only supply mode is mutual supply by government and villagers (Kuang and Wang, 2004). There is an important question induced by this---public goods should be supplied by government, now villagers provide part of them---will they accept this kind of multi-protagonists supply mode? In other words, this supply mode of rural public goods maybe face the acceptance and tension of the informal rule, such as habit, custom et al. Based on this, in this paper, we study the case of the street lamps supply in Majia Village, take internal institutions and external

---

\* Corresponding Author: Business School, Sichuan University, Chengdu, China, 610065. Email: yangyongzhong116@163.

institutions as the analysis framework(Kasper and Streit,2000), discuss the institution restriction rural public goods multi-protagonists and provide the enlightenment from the level of institution to enhance the rural public goods supply during the economic transformation.

## **I. “Light the street”---the street lamp project in Majia Village**

### **1. The arrangement of external institution**

Approved by the State Council, L district was set up in June, 1997, locats in the east-north of A city, and includes 4 towns, 1 township, 1 avenue, with 380 square kilometers and 168k population. As the economic developed fast after setting up, the average annual increase of GDP and financial revenue are 20.2% and 35.2%, respectively. Due to the subjective and historical reason, the economic base is still weak. In 2002, the GDP and financial percentage of the whole city are 1.6% and 1.5%, respectively. The percentage of urbanization is only 17.6%, which is 24.7% lower than the average level of A City and public service severely lags.

In 2003, after study, the district government began to implement “Light the Street”---the street lamp project in rural country. Because of the financial limitation, they made the final decision as below: the cost of installation is taken 1/3 by district government, town government and villager, respectively. After that, the electric charge will be undertaken by villager averagely. This is officially informed to all town and township government in the form of administrative letter.

C town is one of four towns in L district, with 14k population. The average annual net incoming per capita were over 5K RMB, which got the standard of well-off town. In 2003, the revenue and expenditure are 29190K RMB and 28800K RMB respectively, therefore the balance was only 39K RMB. Consequently, “Light the Street”---the street lamp project in rural country advocated by the district government faces the financial shortage. Under the pressure of performance evaluation from upper government, the C town government decided to take the 1/3 cost of installation and transmitted this to lower village committee.

The village committee is an autonomous organization by law, but based on the investigation of Liu (2006), it is considered as the level-I organ of political power or the designated organization of town government. It is very common that the village committee does administrative work or disposes the autonomous items instead of villager. Therefore, in this paper, village committee has dual role as government organization and autonomous organization, and the former is more. Majia village located in the center of C town with 3000 population and is the first place to implement the street lamp project in rural country. The annual revenue is about 600K; according to the balance principle of revenue and expenditure, the monthly expenditure should be 50K. The remainder is almost zero after deducting the water conservancy facilities maintenance, welfare for the old person, administrative subsidies to village committee, militia construction et al. To

implement the project from upper government and show demonstrative effect, at the end of 2004, after investigating on the spot, the new village committee decided to install 200 street lamps on the main street. The 10K RMB cost of installation will be undertaken by village committee. After calculation, about 3000 RMB monthly electric charge will be undertaken by villagers.

## 2. The villagers' reaction and the partial adjustment of external institution

After 200 street lamps installation, Majia Village's night was never dark and it is convenient for villager to walk at night. The social security is much better than before because of the installation of street lamps (such as less burglary). But after two months' usage, when village committee asked for the electric charge for the first time, the villagers refused to pay the averaged electric charge for all kinds of excuse, such as nobody at home all the year, far away from the street lamp, lower incoming et al. Because the electrical charge can't be solved, the street lamps were shut down.

During the following one year when the street lamps were idled, the village committee tried to solve the electric charge issue by so many methods. After denying the transfer cost from the upper government and financial support from village committee, they did adjust the external institution. The rural inhabitation habit is that a couple of family lived together as a group. So that, the 200 street lamps were divided to some groups and were installed electric meters to share the electric charge and manage the street lamps by group. According to the principle of "pay it, get it", the village committee will shut down the electric power to the group who refused to pay for the electric charge. After some of villagers accepted this supply mode, the night of Majia Village was partially light again.

## 3. Consideration of the internal institution

Obviously, the government goal of the project wasn't reached in Majia Village. The prisoner's dilemma of public goods was adopted to explain it by the traditional analytical method, thus the failure of the street lamp supply is the consequent result of the game action of villager for the rural public goods. But actually, behind the action, what is hidden more deeply is possibly the internal institution related to habit and custom which form from the long-term supply of public goods. Since the villagers communicated each other in the same village because of the kinship or relationship, the common habit and custom for public goods are finally formed, which will form the stable internal institution, and eventually affect the villagers' preference for the public good supply mode. The villager committee changed part of the external institution after the project was suspended by the initial external institution. As suggested above, the essence of that external institutional change of the village committee is the reaction and adjustment of internal institution constrains.

Now, to discuss the failure of street lamp supply in Majia Village, quantitative analysis is taken from the angle of the relationship between internal institution and external institution which is usually ignored or less investigated.

## II. Quantitative analysis of institution influence

We did questionnaire survey about street lamp supply in Majia Village in 2006 summer. The respondents are the persons aged older than 18 and younger than 60. Total 400 questionnaires were sent out, and 356 ones were valid. We still interviewed with some of villagers.

### 1. Hypothesis

To do empirical analysis of the influence of external institution and internal institution on the rural public goods supply, based on the above analysis, we do some assumptions as following: 1) The judgment on whether the electric charge method is reasonable or not represents whether the villagers agreed themselves as the multi-protagonists of the street lamp supply. That means, if they agree the street lamp charge method, they will accept the multi-protagonists supply mode of rural public goods, and vice versa. 2) Villager's reasonable judgment on it is not only affected by external institution but also restricted by internal institution.

### 2. Variable design

According to above assumptions, we designed a dependent variable and several independent variables which reflect the characters of internal and external institution in the questionnaire. The internal institution includes habit, internal rule, custom, formal internal rule as shown in Table 1. All indicators are qualitative except annual income and education level.

Dependent variable of "Is it reasonable for government to charge street lamp?" is a virtual bi-variable. "1" is set for "reasonable"; "0" is set for "unreasonable". For detail, refer table 1. If one village chooses "1", it means that he agrees to charge the street lamp by himself, and vice versa.

The institutional factors which affect the dependent variable include the internal institution and external institution. Habit, one of the four factors of internal institution, shows the character of obvious and direct advantage to personal and of damage on personal self-interest after violating such rules. It is reflected by 5 indicators including gender, personal annual income, career, education level and "Do your family or you go to work early and come back late?" According to common sense, the female normally feel more unsafe than the male, thus we deduce that the female will give more support on the street lamp supply. In the survey, we found that some rich villagers donated the electric charge, therefore we can get the conclusion that the personal income level can affect the usage habit of street lamp. Personal career, such as farmer or non-farmer, maybe influence the living habit, consequently affects the option of street lamp supply mode. Zhang and He (1996) thought that villagers with high education level realized the long-term benefit from the public goods supply, so they will increase the requirement of the public goods. From this, education level will affect the usage habit also. Generally, villagers whose family or who go to work early and come back late have more understanding of security. The street lamp supply is good for them to go out, and will affect their habit correspondingly.

Table 1 Variable Definition in Regression Analysis

	Indicator	Unit	Definition
Dependent Variable	Is it reasonable for government to charge street lamp?	Virtual Variable	1 for reasonable 0 for unreasonable
Habit	gender	Virtual Variable	1 for male 0 for female
	In (personal annual income)	RMB	Logarithm of personal annual income
	Career	Virtual Variable	1 for farmer 0 for others
	Education Level	Year	6 for primary or below 9 for junior middle school 12 for senior middle school or technical secondary school 15 for college or above
	Do your family or you go to work early and come back late?	Virtual Variable	1 for yes or no 0 for occasionally
Internal Rule	Will you feel guilty when you don't pay the electric charge?	Virtual Variable	1 for yes 0 for no
Custom	Will you be accused when you don't pay the electric charge?	Virtual Variable	1 for yes 0 for no
Formal Internal Rule	Is it necessary to set up special committee to manage street lamp?	Virtual Variable	1 for yes 0 for no
	Can village committee persuade villagers to pay the electric charge?	Virtual Variable	1 for yes 0 for no
External Institution	Whose interest does the village committee represent?	Virtual Variable	1 for government or villager interest 0 for government and villager interest
	Government motivation to install street lamp	Virtual Variable	1 for government performance 0 for non-government performance

The above factors reflect the influence of the habit whether the villagers agree with the charge of street lamp.

Normally, internal rule is the rule obeyed spontaneously by the persons in community who feel guilty when they violated it, thus we represent it by “Will you feel guilty when you don't pay the electric charge? ”.Custom is represented by “Will you be accused when you don't pay the electric charge?”, because the others in the community will informally monitor the status how these rules are obeyed, once someone violates this institution, he will find himself excluded by the others of this community. Therefore,

we conclude that if someone in the community will be accused when he doesn't pay the electric charge, then the related custom is formed in this community.

The third party plays the role and executes the formal internal rule in the community. The indicator "Is it necessary to set up special committee to manage street lamp?" represents whether it is necessary to interfere the street lamp project from the formal internal rule via the third party. Meantime, because of the special dual roles of village committee and from the angle of autonomous organization of villager, we consider the village committee as the third part to observe "Can village committee persuade villagers to pay the electric charge?".

To observe how the external institution has the effect on whether the villagers agree to pay the street lamp charge, we use two indicators to show it: "Whose interest does the village committee represent?" and "Government motivation of installation street lamp". The first indicator reflects the interest of village committee, whose dual-role identity maybe make its interest have effect on the villager's agreement with the street lamp charge. The second indicator reflects the government motivation of street lamp installation, which maybe have direct impact on street lamp charge by villager.

### 3. Quantitative analysis

Probit model was chosen because the dependent variables are visual ones. The analysis result was shown in Table 2 via S/W Eviews 3.1 and related calculation. The explanation ability of this model is 22.8%, and the predictive accuracy is 76.87%. Over all, the result of this model is excellent. From table 2, the findings are as below:

3.1 From the view of habit, one factor of internal institution, 3 indicators out of 5, Gender, personal annual income and career show the statistical significance. The male disagree more with the government charge activity, which marginal probability is -13.3%, but the female show more tendency of agreement with it. Therefore, in the street lamp supply, gender, an indicator reflects the formation of habit, has significant impact on the activity of street lamp charge. In the view of career, marginal probability is 16.8% for the villager who works as a farmer and thinks this kind of charge is reasonable, thus that shows the more the villager works in the village, the more he need the street lamp. It is also shown in the research by Luo (2007) that local public goods investment has less income effect to the villagers who work outside, thus they don't want to invest in public goods in village. It coincides with the conclusion in this paper. From the table 2, we also conclude that personal annual income affects the villager's attitude to the street lamp charge. The probability of reasonable charge will have a rise of 33.7% with the increase by one unit of logarithm of income. Actually, we learned that the electric charge of some groups was donated by some villager with high income.

That education level doesn't have statistical relation with the attitude to the street lamp charge demonstrates education level has no effect on the mode of street lamp charge. That maybe because the current education level of them isn't high, therefore the villagers haven't realized the long-term interest of public goods. 51.7% of participants are with education level of junior middle school or below, and 96.6% of them are with senior



Table 2 Determinants of whether it is reasonable of electric charge by government  
(Probit Regression Analysis)

Variable Description		Regression Coefficients	Significant Level	Marginal Probability
Habit	Male	-0.514	0.049	-0.133
	Personal Annual Income	1.060	0.003	0.337
	Career as Farmer	0.467	0.107	0.168
	Education Level	0.010	0.857	0.003
	Work out early and come back late	0.380	0.258	0.134
	Don't work out early and come back late	-0.282	0.427	-0.081
Internal Rule	Guilty for not undertake the electric charge	1.406	0.004	0.518
Custom	To be accused for not undertake the electric charge	-0.364	0.391	-0.101
Formal Internal Rule	Set up special committee to manger street lamp in the village	-0.459	0.100	-0.122
External Institution	Village committee can persuade village to pay the electric charge	0.095	0.764	0.359
	Village committee represents the interest of government	-0.303	0.472	-0.086
	Village committee represents the interest of villagers	0.714	0.044	0.266
	Government installs the street lamp due to its performance	-0.313	0.211	-0.088
Constant		-10.276	0.002	-0.518
R-squared	0.228	Predictive Accuracy		76.87*
Sample Number	148 villagers out of 356 think it is reasonable of the electric charge by government			

\*the ratio of the number of samples with above 50% accuracy to the number of the whole samples

middle school or below. It is no statistical meaning of the indicator “Do your family or you work out early and come back late”, thus they don't have clear effect on the charge mode. From common sense, villagers who work out early and come back late should need street lamp supply much more than the ones don't do so. It is understandable that the villagers have less sensitivity of street lamp supply because of the habit of villagers who work at day and sleep at night in rural country.

3.2 The internal rule, one of the internal institutions, has notable meaning to whether the villager pays the electric charge or not. It is shown in the table that the villager who feel guilty if he doesn't pay the electric charge, compared with the villager who don't feel

guilty if he doesn't pay the electric charge, whose marginal probability of agreement with electric charge is 51%. It means that the internal rule has strong positive effect on personal activity.

3.3 The indicator of custom, "Will you be accused when you don't pay the electric charge?", has no statistical meaning. Only when the quantity of persons who accept the rule reaches the critical point in the community, the rule will be changed to custom. That means only when the electric charge should be undertaken by villagers, meantime, if someone who doesn't undertake it will be accused by the others. From this, the custom that most of the villagers agree with the electric charge hasn't been generated.

3.4 From the view of formal internal rule, one of the internal institutions, "Is it necessary to set up special committee to manage street lamp?" is with statistical meaning. The marginal probability of the public goods supply by villagers who think it is necessary to set up special committee to manager street lamp is 12.2%. From this, to set up special committee to manage street lamp has negative effect on street lamp charge. Essentially, the villagers don't agree with street lamp charge. That the indicator "Can village committee persuade villagers to pay the electric charge?" isn't with statistical meaning shows the village committee as the third party can't persuade the villager to undertake the electric charge.

3.5 The indicator "Whose interest does the village committee represent?", one factor of the external institutions, shows the statistical meaning. 26.6% is the marginal probability of agreement with street lamp charge by villagers who think village committee represents the interest of villagers. If villagers think the village committee represents the interest of themselves, they will support the committee and prefer undertaking the electric charge. The other two indicators, "village committee represents the interest of government" and "Whether the motivation of installation street lamp relates to the government performance?", don't show statistical meaning. According to above analysis, the mind of villager to undertake the street lamp charge is not sensitive to external institution, but is affected more by internal institution.

#### 4. Summary

4.1 Internal institution plays a key role in the villagers' option of multi-protagonists supply mode of street lamp. Based on above quantitative analysis, some indicators of internal institution have remarkable effect on the street lamp supply mode, which include habit indicators of gender, personal annual income and career, internal rule indicator of "Will you feel guilty when you don't pay the electric charge?", formal internal rule indicator of "Is it necessary to set up special committee to manage street lamp?".

4.2 The external institution has weak effect on the villager's decision of street lamp supply mode. The villager only think about the self-interest when making the decision of street lamp charge, thus the internal institution has much more remarkable effect than the external institution.

4.3 The external institution arrangement that the villager is one of the subjects of street lamp supply lacks the support and coordination from the internal institution. That shows as

below: in terms of custom, the villagers haven't generated the custom of support the street lamp charge in the community; in the term of habit, the indicators such as villager's education level et al hasn't formed the effective support to the street lamp charge in the rural; in the term of formal internal rule, there is lack of support from the third part who can affect the street lamp charge. Hence, in Majia Village, the street lamp project which is only mandatorily driven by the external institution is difficult to implement without the foundation and coordination of internal institution.

### **III. Mode Analysis of multi-protagonists public goods supply**

#### **1. Inevitability of multi-protagonists supply mode chosen by government**

1.1 Government faces the external pressure to pursue the public interest. In the research of Munnell (1990) and Fan et.al. (2002), the public goods investment promotes the agricultural production largely. In the research of Calderon and Serven (2004), the income gap between in urban and in rural will be reduced by increasing the quantity and quality of such public goods as infrastructure in backward area. In China, a typical dual economic society, from the aspects of public goods supply, the infrastructure in urban and in rural exist at the same time, so that, enhancing the investment in rural public goods promotes the economic development in rural area. Dual economic problem is clear because only 17.6% is the urbanization of L district in Majia Village. As a new district, the rural infrastructure improvement is the main task faced by government of L district. Under the pressure of regional economic development, it is an inevitable option for government of L district to implement the street lamp project in rural.

1.2 Government has the internal motivation to maximize self-interest. Firstly, in china, the designation of officer is from upper government, thus the indicator to evaluate the officer is government performance. To obtain it and to consider self-interest, the down-level government will lead the large street lamp project, even though with the financial limitation. Secondly, the hierarchical and regional character of public goods affects the expenditure from different level government and decides the routine power of relative government. According to public economic theory, government pursues the maximal budget with the impulse of internal continuous expansion. Therefore, the local government shows the tendency to enlarge local routine power to acquire more financial power. Even though with financial limitation, the local government still implement the project of street lamp in rural, therefore, they can get the chip from upper government in the next round.

Based on above dual interest, even though with the financial limitation, the district government still mandatorily implement the project of street lamp in rural via administrative order, hence, they can achieve the expected interest target by this kind of arrangement of "up-to-down" system.

#### **2. Institutional conflict induced by mandatory supply of multi-protagonists public goods**

As for pure public goods, government, the main subject of supply, should make administrative arrangement. Once the public goods take the multi-protagonists supply mode, they will be the quasi public goods. As it, government can take cooperation such as PPP to implement it. Meantime, if government mandatorily arranges other subjects from “up-to-down”, it will violate the character of quasi public goods and be conflicted by other subjects from the aspect of internal institution consequently.

Multi-protagonists supply mode was used in the street lamp project in Majia Village, hence street lamp is viewed as quasi public goods. Two phases in its supply: phase I, street lamp installation and phase II, electric charge. In phase I, 1/3 installation fee was undertaken by district government, town government and villagers respectively. The related part taken by villagers was charged from village financial resource based on the discussion of village committee who represents the dual-role of government and villager, hence, the wishes of villager were not effectively shown in this phase. It was imagined that if the 1/3 installation fee was undertaken by villagers, the internal institutional conflict of the street lamp project maybe strongly shown in phase I. After entering Phase II, villagers had to undertake the electric charge by themselves, so that their wishes were fully shown that they don't undertake the electric charge to conflict the mandatory arrangement of external institution by government.

Street lamp should be a kind of public goods in essence, which was supplied as quasi public goods in this case. This kind of quasi public goods isn't the quasi public goods from the angle of economics meaning, but is the “quasi public goods” with strong support from government to promote the regional economic development and reduce the dual economic gap during economic transformation. In this case, the government didn't deeply understand the character and background of “dual quasi public goods” and only followed the simple path-dependent character to mandatorily implement the project, eventually it is impossible to reached desired effect.

### 3. Trigger mode of dual quasi public goods supply

In the circumstance of dual economics, to enhance the economic development, it is an available option that public goods such as street lamp are supplied by multi-protagonists as the quasi public goods currently. By the feature of quasi public goods, dual quasi public goods should be implemented in collaboration but not mandatorily. We simply elaborate how to implement it in collaboration by a multi-strategy game. The subjects of game are government and private. Three strategies can be chosen: supply by government, private or multi-protagonists. Nash Equilibrium strategies in this game are (government, government) and (private, private), whose benefits are assumed (3,3) and (1,1), respectively. Because multi-protagonists can raise more fund, benefit of the it is much higher, supposed to (4,4), but it is not the Nash Equilibrium of this game. How to solve the prisoner's dilemma in public goods supply, game theory provide a “trigger strategy” mechanism, i.e., both sides tentatively cooperate firstly. Once they find the other side betray it, they won't do so to revenge. Trigger strategy is thought as the key mechanism to realize cooperattion and to increase

equilibrium efficiency in repeated games. In the dual quasi public goods supply, at first, government and private may tentatively adopt the strategy of multi-protagonists supply to achieve the better result to both sides, and acquire path arrangement of subgame perfect Nash Equilibrium in repeated games. The institutional optimum mode, by which to implement “dual quasi public goods” supply with “trigger strategy” idea, is called “trigger mode”, which can be realized via the following three different institutional triggers.

3.1 Multi-dimensional trigger of external institution. External institution, clearly formulated in statutes and laws, was rule which was officially executed by an authorized organization in upper society such as government. “Dual quasi public goods” requires government taking the cooperative supply method between public and private, therefore, government external institutional arrangement must change the administrative character of authority and compulsion instead of the tendency of tentative cooperation. Through multi-dimensional communication channels such as direct communication, indirect communication, the third-party communication et al, government public the benefits compared among government supply, private supply and multi-protagonists supply, introduce the character of multi-protagonists supply, let private more understand the sincere cooperation and future vision from government, and effectively trigger the strategic choice of multi-protagonists supply. In the case of street lamp in Majia Village, government wasn't aware of the importance of tentative cooperation, but rather simply adopted mandatory arrangement, hence, they can't achieve highly efficient result of multi-protagonists supply.

3.2 Centrobatic trigger of internal institution. Internal institution is a kind of rule developed from an evolution progress with gradual feedback and adjustment and is a kind of potential rule in the human heart which enforces the behavior constrains to actor in the social interaction from the inside of a group. The internal institutional character of gradual evolution determines that it is impossible for private to accept the public goods multi-protagonists supply mode fast and fully, therefore, government can guide and focus on the internal institution to enforce the key population's trigger. As statistical analysis shown of this case, personal annual income notably affects the villager's attitude to street lamp charge, thus, government can focus on triggering the richer villagers and emphasizing their acceptance of habit of internal institution. Meantime, government negotiates with the richer villager to undertake more electric charge to reduce the burden from poorer villager, or subsidizes or deducts some electric charge to poorer villager. Consequently, more villagers will support this project. Eventually, that leads to the trigger and evolution of internal institution. It is also shown from the statistics analysis that the marginal probability is more than 51% to the villagers who agree with electric charge and feel guilty if they don't undertake it. Government also can enforce centobaric trigger to these villagers to make internal rule work.

3.3 Coordinated trigger between internal and external institution. A social institution is based on the internal institution of gradual evolution which can't prevent the

opportunism tendency, hence, external institution is required to guard it. During the dynamic process of multi-protagonists supply of public goods, the coordinated effects of internal and external institution should be aware of. The internal institutional changes generated from external institution, increase the benefits to part of villagers, and consequently enhance the internal institution's trust to external institution by spreading widely via the channel of information. Economic and social effects related to the positive adjustment and response of external institution which are generated from the requirement of internal institution, are shown via a certain way to promote external institution to accept internal institution. By the coordinated trigger between internal and external institution, the multi-protagonists supply to the "dual quasi public goods" will be better and last more.

#### **IV Conclusion and Enlightenment**

The case study of the rural public goods supply shows that the internal institution has great effect on the choice of mode of rural public goods multi-protagonists supply, therefore, although external institution is mandatory in some degree, it is difficult to enforce supply only by external institution with the cooperation with internal institution. The internal institution has remarkable effect on the supply mode of rural public goods in the traditional village with the relationship of geography and kinship.

In this paper, it is advisable to take multi-protagonists supply of rural public goods during the regional economic development currently. Based on this, trigger mode of multi-protagonists supply of rural public goods is discussed. It shows that government should not arrange it mandatorily, but promote it cooperatively when supplying the "dual quasi public goods". First, government should give a clear signal of sincerely cooperation via multi-dimensional trigger, to enhance the acceptance of external institution by private. Second, after dividing the type of private subject, government guide the key population, drive the non-key ones and trigger the wide acceptance of internal institution of multi-protagonist supply mode by private subject. Last, government should promote the coordinated trigger between internal and external institution. By the trust between internal and external institution and with the help of internal institution, government adjusts, corrects, and perfects the external institution to make it more reflect the common people's interest. Taking the advance of external institution, developing, optimizing and promoting internal institution, internal institution more adapting the requirement of economic social development, will be beneficial to the effective supply of rural public goods and promote public goods entering the Chinese villages faster and better.

#### **REFERENCES**

Alicia Munnell,H. How Does Public Infrastructure Affect Regional Economic Performance?. Chapter in Munnell(ed.),Is There a Shortfall in Public Capital Investment? Boston, MA. Federal Reserve

- Bank of Boston,1990.
- Calderon, C. and L. Serven.The Effect of Infrastructure Development on Growth and Income Distribution.Washington D.C., The World Bank, LACVP, Processed,2004.
- Fan, Shenggen, Linxin Zhang and Xiaobo Zhang.Growth, Inequality and Poverty in Rural China: The Role of Public Investments.IFPRI Research Report,2002,NO.125.
- Kasper Wolfgang , Manfred E. Streit. Institutional Economics: Social Order and Public Policy, Edward Elgar Pub. 2000.
- Kuang Y., Wang S. . Game Analysis on Supply of public goods in rural areas. Journal of Beijing Electronic Science & Technology Institute, 2004, (3) .pp.19-22.
- Liu M.. Investigation Report of Village Committee Organization Law in Hubei Province. Public law Review. 2006, (2) .pp.379-400.
- Luo Renfu , Linxiu Zhang, Jikun Huang, Scott Rozelle. Elections, fiscal reform and public goods provision in rural China, Journal of Comparative Economics,35(3), 2007, pp. 583-611
- Shi L.. China's main supply of public goods in rural areas. Journal of Central University of Finance & Economics, 2005, (5) .pp.12-15.
- Timmer C. Peter. The Agricultural Transformation. Chapter 7(pp.113-135) in Carl Eicher and John Staatz(eds.) International Agricultural Development, Third Edition. The John Hopkins University Press: Baltimore, MD,1998.
- Zhang J. and He H. . Supply of public goods in rural China: post-reform changes. Reform, 1996, (5) .pp.52-59.