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SWOT Analysis and Countermeasures of Beijing Rural Infrastructure

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Abstract On the strength of the status quo of Beijing rural infrastructure, I probe into the SWOT analysis of the strengths, weaknesses, opportunities and threats of rural infrastructure in Beijing municipal. Among them, the strengths of rural infrastructure in Beijing municipal are analyzed from two aspects, namely, the strong financial support and great importance attached to by the government; the weaknesses are analyzed in terms of the serious shortage of funds invested and disparate investment in rural infrastructure; the opportunities faced by the rural infrastructure construction are analyzed in terms of support from the macro-control of the state and the threats are analyzed from the aspects of land preservation and environmental protection. Thus in order to further promote the Beijing rural infrastructure construction and increase the investment in rural infrastructure construction, the following countermeasures are put forward. In the first place, the government should adjust the fiscal policies and increase the investment in rural infrastructure construction. In the second place, the laws should be perfected to provide constitutional guarantee for infrastructure construction. In the third place, healthy supervision system of rural infrastructure should be managed well and use well. In the fourth place, the government should attach importance to disparate demands and shift from the unified standard to classified standard. In the fifth place, the government should enforce the supervision on capital and operation so as to improve the service efficiency of capital.

Key words Rural infrastructure, New village construction, SWOT analysis, Beijing municipal, China

Rural infrastructure is defined as the material engineering facilities used for providing public services for rural social production and for farmers' daily life, and the public service system used for ensuring the normal social and economic activities in rural areas. It is the general physical condition for the existence and development of rural society. In general, rural infrastructure includes transportation facilities, irrigation and water conservancy facilities, drinking water facilities, electric power facilities, communication facilities, basic education facilities, health facilities and rural cultural facilities and so on. Rural infrastructure construction is the core of new village construction in China and its improvement plays key role in enhancing the image of new village and promoting the all-around development of rural social economy. Foreign experiences also show that in order to realize the modernization of agriculture and the all-around development of rural economy and society, the corresponding advanced and healthy rural infrastructure is badly needed. Since the eleventh five-year plan, Beijing municipal has continuously increased the policy support and capital investment in new village construction to reinforce the construction of rural infrastructure. But at present, there are still many problems in the rural infrastructure construction and these problems must be solved. Based on this, I apply the SWOT analysis to analyze the strengths, weaknesses and the external opportunities and threats faced by Beijing rural infrastructure construction. Through systematic analysis and deep research on the con-

struction situation, the countermeasures and suggestions for Beijing rural infrastructure construction are put forward.

1 The status quo of Beijing rural infrastructure

Since the foundation of New China, especially the reform and opening-up, rural infrastructure construction in Beijing has made great progress. According to the *Major Figure Communiqué of Beijing Second National Agricultural Census*, by the end of 2006, 25.14% of towns in Beijing prefecture have railway stations, 83.61% of towns have class-II or higher level roads, 78.14% of towns have post offices, 46.99% of towns have gardens, 68.85% of towns have comprehensive markets and 11.48% of towns have the specialized markets of agricultural products. In Beijing, 80.14% of towns implement collective water supply, the 29.79% of towns' domestic sewerage has been processed by centralized processing and 46.81% of towns have garbage disposal stations. Besides, in Beijing, 100% of the villages have roads, 100% of the villages have access to electric power and 100% of the villages have access to TV programs. In addition, 93.57% of villages have their drinking waters purified collectively, 89.17% of villages have their wastes handled collectively, 3.56% of villages have marsh gas tanks, 35.18% of villages have finished the improvement of toilets and 53.14% of village prefecture have comprehensive stores and supermarkets with the area of more than 50 m². It can be seen from the above mentioned figures that at present the rural infrastructure construction of Beijing has achieved great progress in terms of transportation, electrical power, communication and drinking water processing and so on. However, it still has many problems in terms of waste water pro-

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cessing, environmental sanitation, garbage disposal stations, the construction of specialized markets of agricultural products and so on. Although in general most infrastructure has made great progress in coverage, the quality is relatively low. Therefore, if we divide Beijing rural infrastructure construction into two stages, namely the satisfaction of quantity and the improvement of quality, then the construction of Beijing rural infrastructure is still in the satisfactory stage and many can just satisfy people's basic needs.

2 The SWOT analysis of Beijing rural infrastructure

SWOT is short for Strengths, Weaknesses, Opportunities and Threats. Among which the SW (Strengths and Weaknesses) refers to internal advantages and disadvantages, and OT (Opportunities and Threats) refers to external opportunities and threats. In the paper, the internal and external situations of Beijing rural infrastructure are generalized and concluded by applying SWOT analysis. Among which the strengths and weaknesses analyses mainly focus on the development level of Beijing rural infrastructure and the comparison with other provinces and cities, while the analyses of opportunities and threats lay much stress on the external environment faced by Beijing and on its possible influences.

2.1 The analysis of strengths

2.1.1 The strong financial support. The construction level of rural infrastructure is closely related to the economic development level. For one thing, the improvement of economic development level has strong impetus to the investment of rural infrastructure; for another thing, the increase of investment in rural infrastructure can effectively push forward the development of local social economy. Since the reform and opening-up, the national economy of Beijing has made great progress, and the increase of financial strength provides strong support for the development of infrastructure. According to statistics, from 2000 to 2008, the GDP of Beijing has maintained the rapid growth of 11.9% for 9 consecutive years, and in 2008, the absolute amount of GDP has achieved 1 048.8 billion yuan. The growth rate of fiscal income in Beijing has come to over 20% for consecutive 14 years and in 2008, it came to 228.204 billion yuan. The increasingly expanded economic power and gradually increased fiscal income provide economic basis and capital guarantee for the construction of rural infrastructure.

2.1.2 The government attaches great importance to the construction of rural infrastructure. The Beijing Municipal Government attaches great importance to its construction of new village and rural infrastructure. At the beginning of 2006, in order to implement the major strategies launched by the Party Central Committee and the State Council. Beijing Municipal Party Committee and Beijing Municipal Government established the organizations after formulating specific policies, and then through determining the projects (the important projects controlled by the deputy mayor of Beijing Municipal and coordinated by relevant committees, offices, bureaus and sponsor units. The projects require the clear tasks, time limitation and responsibilities. Be-

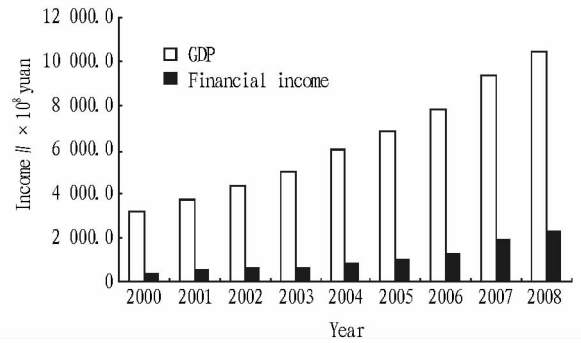


Fig.1 The Beijing GDP and its financial income status from 2000 to 2008

sides, they are the projects authorized, controlled and actualized by the government). Through establishing experimental pilots and inputting capitals and some other ways to actively implement the spirit of the relevant documents issued by the Central Committee and vigorously push forward the construction of Beijing socialist new village. In view of the realistic problems faced by the construction of rural infrastructure in Beijing, the Municipal Party Committee clearly pointed out that *The Construction of Modern Rural Infrastructure in Beijing and Comprehensive Development Plan (2009 – 2012)* should be compiled as soon as possible and implemented in 2009.

2.2 The analysis of weaknesses

2.2.1 The capital inputted to rural infrastructure is seriously insufficient. Rural infrastructures are public goods, so it is necessary for the government to provide fiscal support and public investment in it. However, since 1980s, for a long time, China laid much stress on cities and industries and had the wrong ideas of "attaching great importance to industry and neglecting agriculture" and "giving priority to industry". Rural infrastructure has not got much attention, which led to the lower growth rate of the input of rural infrastructure against the growth rate of GDP^[1]. In recent years, though the situation has been improved to certain degree, the situation of giving priority to industry while neglecting agriculture has not been changed completely. Table 1 indicates that although the Beijing Municipal government's investment in agriculture has increased gradually, the proportion of the investment to the total sum of investment of the whole society shows the ascending trend and then descending trend (from 2001 to 2005, the proportion was increasing except in 2002, but from 2005 to 2008, the proportion taken by agricultural input to the total social input was decreasing) and the proportion maintained between 5% and 9%, which was significantly lower than that in other provinces. In addition, the low proportion is extremely disproportional to the fundamental status of agriculture in the national economic and social development and opposite to the idea of socialist new village construction.

2.2.2 The investment in rural infrastructure varies in different areas. By using the survey and comparing with the situation of rural infrastructure in suburbs of Beijing municipal, plain areas and remote mountain areas, we find that the construction of rural infrastructure in the three areas is disparate obviously. To be specific, the infrastructure in suburbs is better than that in

cities and the infrastructure in plain areas is better than that in remote mountain areas. Among these areas, the suburbs represented by Tongzhou and Shunyi have the best rural infrastructure, which are motivated by the radiation of infrastructure construction in Beijing and caused by the relatively high income of local residents. So when the investment from the government in the construction of rural infrastructure is inadequate or lagged, residents in these areas can finish the construction of it by their own economic power. The remote mountain areas represented by Miyun, Huairou and Yanqing have the worst rural infrastructure construction, which is caused by the lagged economy, relatively small sum of fiscal income and low rural collective income and farmers' income as well as by the low population density. Besides, it is caused by the relatively larger difficulties of rural infrastructure construction affected by the natural environment.

Table 1 The investment in agriculture of Beijing municipal from 2001 to 2008^[2]

Year	Agricultural investment × 10 ⁸ yuan	Social total investment × 10 ⁸ yuan	The proportion of agricultural investment in social total investment//%
2001	193.7	1 530.5	6.1
2002	102.5	1 814.3	5.6
2003	132.1	2 157.1	6.5
2004	195.3	2 528.3	7.7
2005	285.2	3 371.5	8.4
2006	231.8	2 827.2	8.1
2007	309.9	3 966.6	7.7
2008	293.7	3 848.5	7.6

During the eleventh five-year planning period, governments from different levels in Beijing focus on solving the "three agriculture problems" concerning agriculture, countryside and farmers; improving the development of rural areas; increasing the investment in agriculture; pushing forward the construction of rural infrastructure, so the rural infrastructure has made great progress. However, limited by history, reality and other factors, infrastructure in many rural areas of Beijing is still backward, especially in Yanqing, Huairou and other remote mountain areas whose rural infrastructures are damaged and scarce severely. Rural infrastructure in these areas is far from meeting the demands of local economic and social development. The main problems cover inadequate investment in governmental capital, aging rural infrastructure, low popularization of the facilities of medical health services, culture, sport and the low quality of rural infrastructure.

2.2.3 Some areas have fiscal difficulties and can not provide the counterpart funds. The capitals for rural infrastructure construction are projects of specialized funds, shifting from the upper level to the lower level. At the same time of earmarking the construction funds, the upper level department will require the local government to provide counterpart funds. The reason is that through the appropriation of municipal government to guide the local governments to increase the investment in the construction of rural infrastructure and to increase local governments' attention to the development of rural infrastruc-

ture. However, with the boost and development of new village construction in Beijing, the fiscal investment in the construction of rural infrastructure has increased gradually; that is to say, local counterpart funds should be increased correspondingly. But in Yanqing, Huairou and the like relatively under developed areas in Beijing can not finish all the counterpart funds items limited by their economic development level and financial strength, which chokes the construction and development of local rural infrastructure. That also explains why the poor areas have the backward infrastructures^[3].

2.3 The analysis of opportunities The national macro control system and economic support are the important opportunities faced by the construction of rural infrastructure of Beijing Municipal. Since the 1980s, industrial departments and urban regional economy have got rapid development, but the development of agriculture is still very slow. Rural infrastructure has seriously choked the development of rural economy in China. In order to adopt the new requirements of social and economic development, Chinese Central Party Committee proposed the policy of "industry nurturing agriculture, city supporting village, realizing the coordinate development of industry and agriculture, city and village, positively adjusting the pattern of national income distribution and actively support the development of 'three agricultural issues'" in the Forth Plenary Session of 16th Central Committee of the Chinese Communist Party. In the session, the committee also pointed out that the government should lay much stress on solving 'three agricultural problems' concerning agriculture, countryside and farmers and spare no efforts in promoting the development of rural areas. In 2005, Chinese government emphasized again the importance of strengthening the construction of rural infrastructure in the *Suggestions of the State Council on Further Strengthening Rural Work and Improving the Comprehensive Production Capability of Agriculture* in Document No. 1. In 2008, in the ten plans proposed by the Central Party for stimulating economy, the construction of rural infrastructure was given a more eminent place.

2.4 The analysis of threats China is a country with large proportion and relatively limited land, and arable lands have become the important resources related to sustainable development of our economy and society, so "to cherish and give a rational use to the land as well as to give a true protection to the cultivated land" becomes a basic long-term state policy in China. But the construction of rural infrastructure will unavoidably occupy a large amount of arable lands and damage the ecological environment, for example, the construction of roads will destroy farmland and the construction of water conservancy facilities may occupy farmlands. The Eleventh Five-Year Plan Period is an important period for speeding up the development of rural areas and for constructing socialist new village. If the arable lands could not be protected well, the ecological environment of Beijing would be destroyed irreversibly and the all-around development of Beijing would be squeezed, with the increasingly strengthened force of construction of rural infrastructure. Therefore, in the process of strengthening rural infrastructure, the government should protect the lands and environment and optimize the plan of rural infrastructure, try to avoid the se-

rious environmental damage caused by the blind construction of rural infrastructure.

3 Suggestions for promoting the construction of rural infrastructure of Beijing Municipal

3.1 The government should adjust the trend of fiscal policy and increase the investment in rural infrastructure construction Rural infrastructure is public goods, it determines that its income from investments is less than its costs on constructions and the spilling effect will appear, so completely relying on market to provide rural infrastructures will lead to the shortage of supply^[4]. The features of rural infrastructure determine that the construction of rural infrastructure should mainly depend on the investment from the government, though in some areas the investment mainly comes from the social capital, the government should provide certain preferential policies and stimulating measures as well, so as to stimulate the enthusiasm of social capital in investing rural infrastructure construction and to ensure the investment enterprises to have reasonable profits.

At the same time, in the past, China paid much attention to the development of industrial departments and cities, while neglected the development of rural areas, hence, our government should adjust the policy timely and strength the support of fiscal expenditure for agriculture and countryside. It is worthy of notice that if the capital of rural infrastructure construction was fully burdened by the local government, the government would be under great pressure, and then it will impose money on farmers, which would increase farmers' burden. Therefore, the government should apply the way of mutual investment by the municipal government and local government. In addition, the government should take measures to expand the influences of infrastructure of cities and make the infrastructure of Beijing to be an important channel for bridging the cities and countryside.

3.2 The government should perfect the legal system and provide constitutional guarantee for the construction of rural infrastructure At present, there still lacks the specific and feasible statutes and regulations for the construction of rural infrastructure in China, so the relevant laws and regulations concerning agriculture and rural infrastructure construction should be formulated as soon as possible, so as to provide stable constitutional guarantee for the construction of rural infrastructure. The laws and regulations should be enacted on the basis of *Agricultural Law* and the authority and property right of each level should be clarified. Furthermore, the laws and regulations should divide the input on rural infrastructure of government from each level according to its responsibilities.

3.3 The government should establish perfect supervision system and construct and manage well the infrastructure The problems of "highlighting construction and neglecting management" are the ubiquitous problems existing in rural infrastructure of Beijing municipal, which lead to the misprision of supervising the constructed rural infrastructure and the lack of fund input and maintenance management. Therefore, many rural infrastructures are aging and hard to display their long-term

economic and social interests. Hence, in constructing rural infrastructure, the principle of "integrating management into construction" should be taken as an important guide. Except for the great importance attached to rural infrastructure by the governments from each level, the governments should obey the rules of "who invest in it, who will own it and who own it must take responsibility of it", and clearly define the boundary of duties and responsibilities. And then establish complete supervision system for the construction of rural infrastructure on the basis of integrating the responsibilities, duties and profits.

3.4 The government should pay attention to discrepancy of demands of different areas and shift from the unified standard to classified construction The construction of rural infrastructure should pay special attention to the disparate demands of areas with uneven economic level, and to provide different infrastructures according to different demands. Taking the relatively developed areas represented by Chaoyang and Haidian as examples, the rural infrastructure investment should focus on the rural leisure parks, lights in the woods, cultural and sports facilities and so on; while in the relatively underdeveloped areas such as Huairou, Yanqing and so on as examples, the rural infrastructure should emphasize on the drinking water, lights in the woods, special markets for agricultural products, roads and so on. In addition, even in the same region, the discrepancy of villages should be taken into account. The government should shift from the unified standard to classified construction. Due to the discrepancies of economic development level, population, geographic environment, history and customs and so on, the government should stipulate different investment standards and different construction standards according to the local conditions in the process of constructing rural infrastructure. For example, in the villages with small population, the rural infrastructure should be concentrated to share and use the rural infrastructure mutually. The government should take the utilization efficiency of infrastructure into account to avoid wasting. As for the villages with higher developed economy and dense population, the villages should strength the public service functions of rural infrastructure, for example, establishing the energy-saving and environmental protection house and so on.

3.5 The government should strengthen the supervision on capital and management, and increase the utilization efficiency of capital Due to the investment of rural infrastructure mainly relies on fiscal input, so the supervision on capital of rural infrastructure construction should be enforced and the management system of the specialized capital of rural infrastructure should be perfected. In the first place, the government should realize the financial disclosure and fully supervise the utilization of capital, and increase the efficiency of fund utilization. In the second place, the government should establish accountability system; strengthen the supervision and restraint functions of the people's congress at the corresponding level, auditing and other departments to ensure the rational use of funds for the construction of rural infrastructure and increase the utilization efficiency of funds. In the end, the government should increase the input and output efficiency of funds used for

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2.5 Suggestions for securing villagers' welfare in the reconstruction of urban villages in Guangzhou

2.5.1 Innovating new mechanism of land use. The focus point of the reconstruction of urban village is land property, including the collective construction land property and agricultural land property, the property of farmlands in particular. Owing to the advantageous position of neighboring to the central region of cities and the perfect infrastructure of cities around, the collective construction land of urban villages has great potential for appreciating and developing comparing with ordinary villages. In order to realize "the same lands, the same price", the collective land in urban villages can be transformed into state-owned land according to the law. The government can reduce or eliminate the land transfer fee, which should be handed in by the government below city level (including city level). Besides, the government should conduct unified planning, land expropriation, auction and management.

2.5.2 Selecting the way of demolition compensation which can best secure villagers' welfare. Taking Liede village as an example, on the basis of the fully communication with villagers, the Liede village applies the "reallocation in the original position" and "demolishing a house and compensating it timely" in the process of reconstructing. This kind of way reduces villagers' damages as far as possible. First of all, villagers can return to the original place after the reconstruction and continue to enjoy the advantageous position of the new Zhujiang city and enjoy the interests bought by the appreciation of the new Zhujiang city. In the second place, as for the legal construction, the government should apply the compensation principle of equal area compensation; as for the illegal construction, the government should provide a certain amount of compensation as well, so as to protect villagers' utmost economic interests. In the end, in the period of constructing reallocating houses, villagers can get certain amount of temporary reallocation fee as the compensation for renting house, thus the rent losses caused by demolition will be made up for and the negative

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the construction of rural infrastructure. In addition, the government should optimize the plan of rural infrastructure and reasonably plan the construction of rural infrastructure and try to avoid wasting and ecological damage^[5]. The government should also establish the evaluation system for the rural infrastructure invested by the government, and conduct necessary audit, evaluation and supervision after the completion of the items.

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effects caused by the reconstruction will be reduced.

2.5.3 Protecting the historical and cultural resources of Guangzhou. In the reconstruction of urban villagers in Guangzhou, the ancient villages and aging architectures should be preserved, so as to last longer the traditional culture. In the reconstruction of Wenchong, the government preserved 13 ancestral temples and other ancient buildings around the Lushi Ancestral Temples and Shaoshan College. The government collects the ancient architectures by the way of translating, reconstructing after demolition, repairing and other ways, thus a group of ancient architecture with 30 000 m² will be built. In addition, a cultural and leisure plaza based on these old architectures will be planned at the same time.

3 Conclusions

The reconstruction of urban villages is a systematic project with long range of time, hard capital operation, and the interests concerning governments from various levels, villagers, and developers. With the economic and social development of developed regions, the service awareness of governments and the self-protection awareness of villagers have increased continuously, thus villagers' welfare in the reconstruction of urban villages will be well secured.

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