

## **RESEARCH ON THE BEIJING RURAL VILLAGES' CLASSIFICATION & DEVELOPMENT UNDERURBANIZATION**

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**ABSTRACT:** The fast urbanization has become already a main characteristic of socio-economic transition in China. This paper points out the characteristics and the problems of villages in Beijing metropolitan region. The paper also explores the role of villages in the metropolitan region in the process of urbanization. As a representative case, the Village System Planning of Changping District in Beijing is presented in this paper. According to the research on the economic and the spatial typologies of villages in Changping District, the villages are classified to three categories in the planning. In conclusion, by the guideline of categorization, the Village System Planning intends to solve those problems of villages under the background of fast urbanization so as to realize the sustainable development of rural area.

**KEYWORDS:** rural area, village, urbanization, Beijing, village system planning

### **1 BACKGROUND**

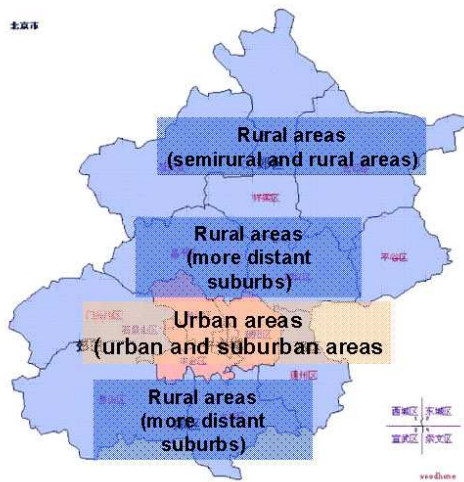
The fast urbanization has become already a main characteristic of socio-economic transition in China. The unprecedented transformation of both urbanized and non-urbanized spaces occurs than ever before, so that the new urban-rural spatial structure is being formed. As a global metropolis, Beijing is simultaneously undergoing the process of urbanization and suburbanization. The development of villages in the surrounding rural areas of Beijing is highly impacted by the socio-economic transformation.

### **2 THE CHARACTERISTICS OF VILLAGES IN BEIJING METROPOLITAN REGION**

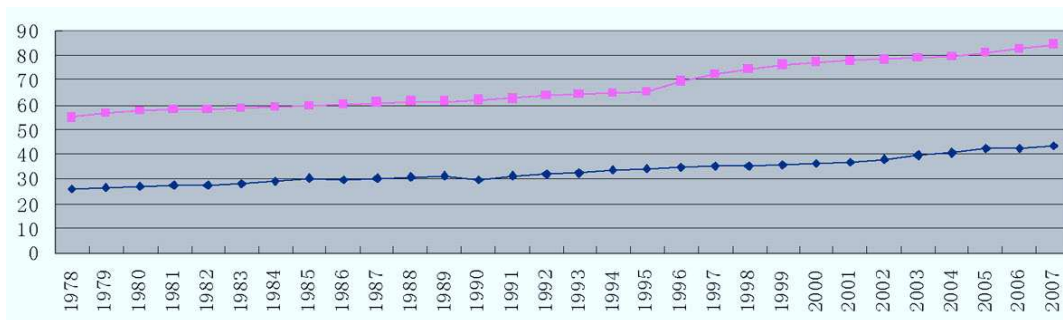
Beijing Municipality comprises 18 administrative sub-divisions, county-level units governed directly by the municipality. Of these, 16 are districts and 2 are counties. The urban and suburban areas of the city are divided into 8 districts. There are 8 districts and 2 counties in rural areas. (Fig. 1)

The population of Beijing is 16.33 million. The population of rural areas is 9.12 million and the population of urban areas is 7.21 million.

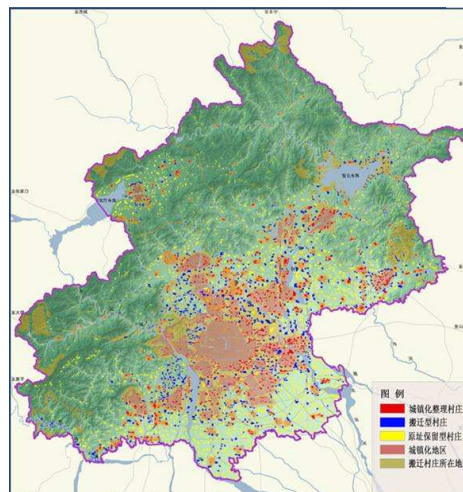
In 2007, the urbanization rate in China is 45.68% and urbanization rate in Beijing is 84.5%. (Fig. 2)



**Figure 1** Urban areas and rural areas in Beijing



**Figure 2** Urbanization rate of Beijing and China (1978-2007)



**Figure 3** Villages' distribution in Beijing

There are 3, 985 villages with 12,936 settlements in Beijing (1village can be comprised of 2 or more settlements). 7,442 settlements are located in the plain and 5,494 settlements are located in the mountains.

(Fig.3)

The existing situation of rural settlements in Beijing is identified by the small size, scattered location and large differences in geographical conditions and economic development.

### 2.1 Small size

About 72.3% villages have less than 400 families. Out of these villages, 26% villages have 100- 200 families and 13.5% villages only have less than 100 families.

The average population of villages is 834 people. The village with the smallest population is Dongshuiyu village, with only 10 families, 17 people.

### 2.2 scattered location

In total, 12,936 scattered settlements (spots) ,59% settlements( 7,513 ) occupy less than 50 mu( = 3.33 hectares).

### 2.3 unbalanced economic development

Farmer income per year in the fringe of Beijing's urban area is 9,311 RMB. It is higher than the farmer income per year in Beijing's plains (6,677 RMB), and also higher than the farmer income per year in Beijing's mountains (5,566 RMB).

There are 252 villages where farmer income per year is above 10,000 RMB, and 46 villages where the farmer income per year is under 3,000 RMB. (Fig. 4)

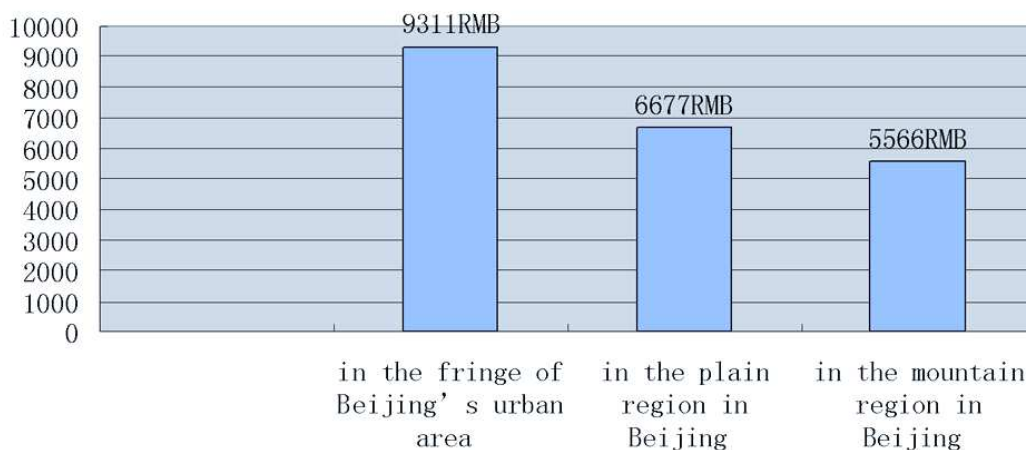


Figure 4 Farmer income per year in various area in Beijing

### 2.4 Influence of urban development on villages

The development of villages is influenced by both urban developmental trends and the natural geographic conditions.

641 villages are located near the infrastructure construction, such as high voltage transmission lines surroundings, radio towers surroundings, sewage treatment plant, waste disposal plan. 792 villages are located in "green" area for ecological conservation, such as nature reserve, green belt, scenic spots, forest park. 40 villages are located in cultural relic conservation area, such as Great Wall and 13 Cemeteries of Ming dynasty. 90 villages are located in flood zone surroundings. 2,009 villages are located in the areas with water resources. The construction of villages in these areas would affect the water quality. 2,395 villages are located in erosion-prone areas and earthquake-prone areas, such as serious debris flow and fault lines.

The developmental of villages is influenced by both the urban developmental trend and the natural geographic condition. The spatial patterns and the characteristics of villages have diversified along with the process of urbanization and suburbanization.

On the other hand, a series of problems, including the uncontrolled expansion, the inefficient and disordered land use, the disappearance of original spatial identity and landscape, and the environmental

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threat, emerge in the villages. After the chaotic spatial development, the villages in the metropolitan are facing the challenge of restructuring due to the intention of urban-rural integrated development. Therefore, the optimization of the spatial system of villages in Beijing becomes inevitable.

### 3 THE ROLE OF VILLAGES IN THE METROPOLITAN REGION UNDER URBANIZATION

Villages are the settlements where villagers are living and working, so that they must meet the requirements on dwelling and production from the villagers. Meanwhile, as a part of a metropolitan region, villages also play an importance role to support the urban development. The rural area does not only condition the potential available spaces for urban expansion and the “green” area for ecological conservation, but also provide agricultural production for the city and touristic attractive for urban residents.

### 4 THE PURPOSE OF THE VILLAGE SYSTEM PLANNING

The purpose of the village system planning, which is the planning on the spatial distribution of villages in Beijing metropolitan region, is to promote the urban-rural integrated development as well as the efficient and sustainable spatial use in villages in order to effectively guide the public investment to the construction of rural area.

### 5 VILLAGE SYSTEM PLANNING OF CHANGPING DISTRICT IN BEIJING

#### 5.1 General

Changping District is located in northwest of Beijing. The distance to inner city is 32km. The area is 1,352km<sup>2</sup> and the population is 782,000. There are mountains in northwest and plains in southeast.

There are totally 17 towns and communities in Changping district. 6 towns and communities are located in the urban expansion area of Changping New Town defined by the urban master plan. 4 towns are key towns and 5 towns are ordinary towns. The other 2 towns are located in the urban expansion area of the central city. There are 305 villages in Changping district. (Fig. 5)

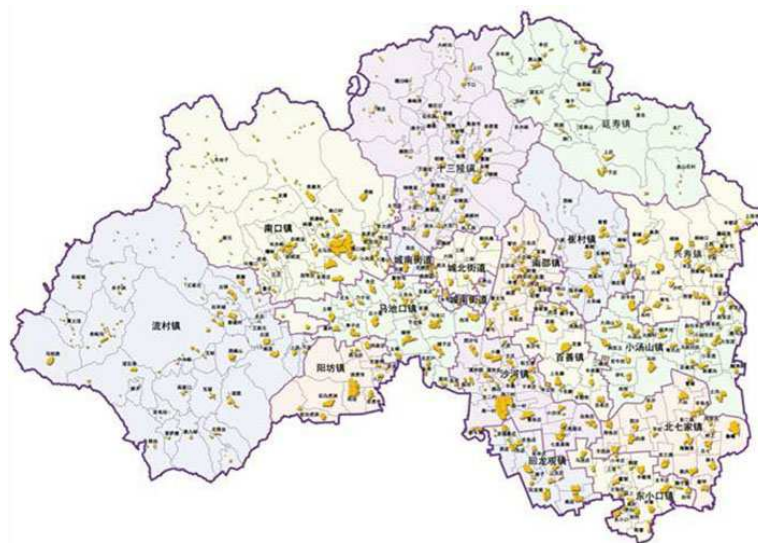
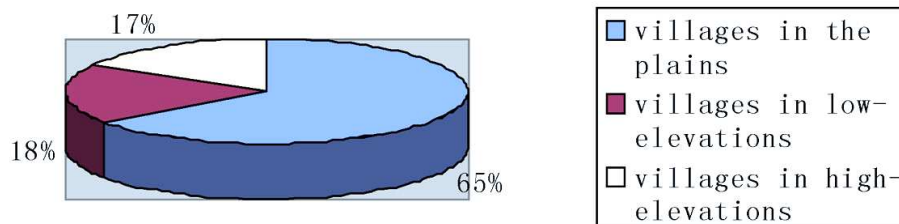


Figure 5 Distribution of villages in Changping District

In 2007, farmer income per year in Changping district was 7,416 RMB ,which is among the higher level incomes in Beijing’s rural areas.

In total, 305 villages, 65% villages located in the plains (198 villages), 35% villages in the mountains (107 villages). In these 107 villages in the mountains, there are 56 villages located in low-elevations and 51 villages located in high-elevations. (Fig. 6)



**Figure 6** Location of villages in Changping District

About 38% villages have more than 1000 people (extra-large sized villages). 26% villages have 600-1000 people (large sized villages). 13.5% villages have 200-600 people (medium sized villages). 7% villages only have less than 200 people (small sized villages).

Villages are distributed according to terrain. In the plains, villages are denser and uniformly distributed, and the majority is large sized villages and extra large sized villages. In the mountains, villages are less dense and smaller sized because of changing terrain.

### 5.2 Economic development

Based on the geographical conditions, the economic development of villages is different.

There are some small-size factories scattered among the villages, whose growth need to be restricted in the near future to protect the environment.

121 villages located in the urban expansion area of Changping New Town, inner city and 15 towns defined by the urban master plan.

Development of agriculture in Changping district has a good prospect. Fresh fruit and dried fruit are very famous in Beijing, especially apples and strawberries. Nurseries, horticulture, grazing fields and fisheries are successful and well developed aspects of agriculture in Changping district.

There are plenty of tourism sites in Changping district, not only nature sites (nature reserves, scenic spots, forest parks, etc) but also cultural sites (Great Wall, 13 Cemeteries of Ming dynasty, etc).In recent years, 21 touristic villages with 1,470 families, which are attractive to urban residents, have developed. In 2006, the income from all the tourism villages totaled 1.7 billion RMB. 114 orchards for touring and picking and 10 fisheries for touring have developed. Orchards for tourism and fruit-picking are located along the river and in the mountains. The orchards contain apples, chestnuts, cherries, peaches and apricots.

### 5.3 To be solved in the village system planning

First, to relocate villages with difficulties in developing infrastructure that is currently sub-standard.

Second, to rebuild villages in the urban expansion area.

Third, to restrict and guide villages which conflict with ecological conservation and construction of Beijing’s infrastructure.

Fourth, to promote the development of villages located in the future development areas

### 5.4 Guide Lines of Classification

According to the research on the development of villages in Changping District, the villages are classified into three categories in the planning:

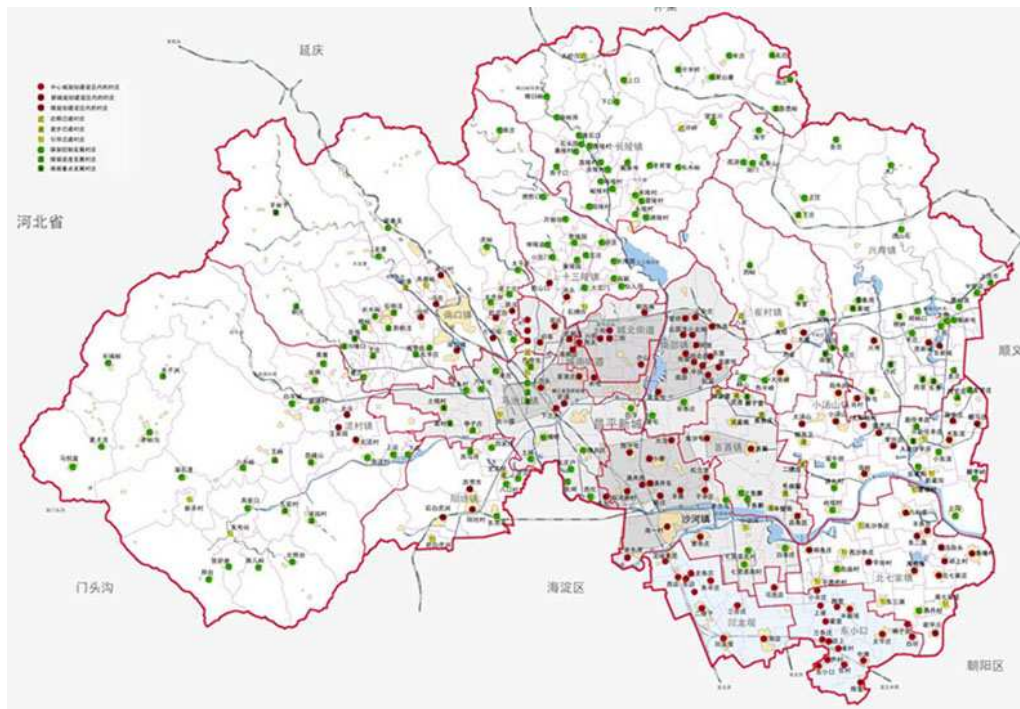
The first category is the villages to be urbanized that are located in the urban expansion area defined by the urban master plan.

The second is the villages to be relocated because of poor geographical location and conflicts with ecological conservation and the construction of Beijing's infrastructure.

The remaining type of village will remain stable in the long term, and develop accordingly.

### 5.5 Classification

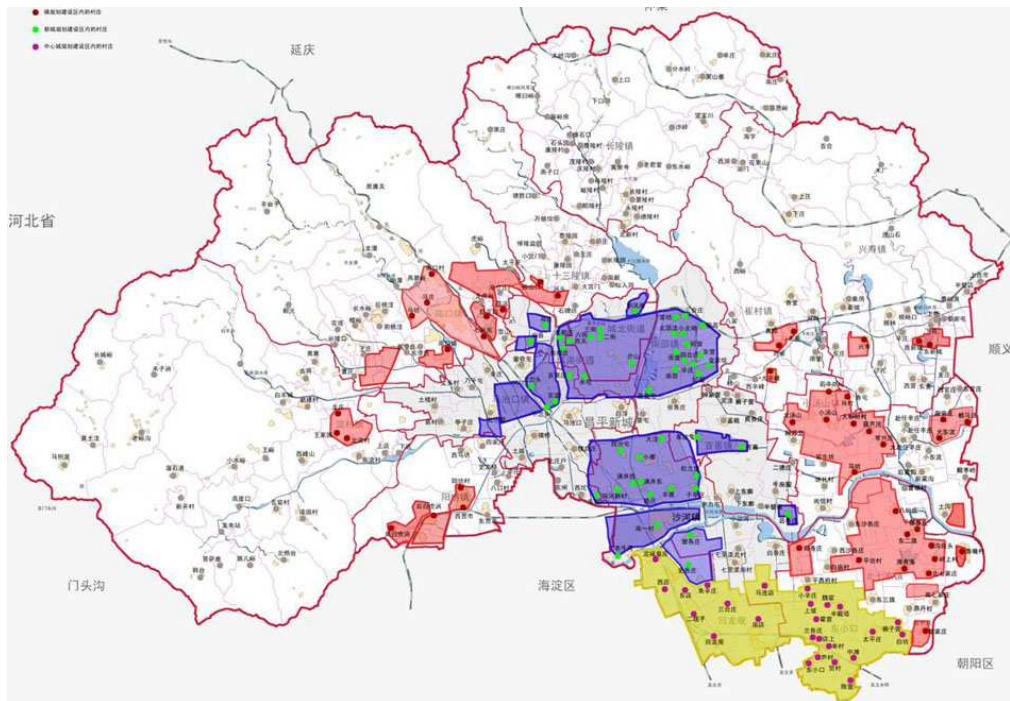
According to the planning, 121 (40%) villages are to be urbanized, 38(12%) villages to be developed in control and relocated, 146 (48%) villages to be developed. (Fig.7)



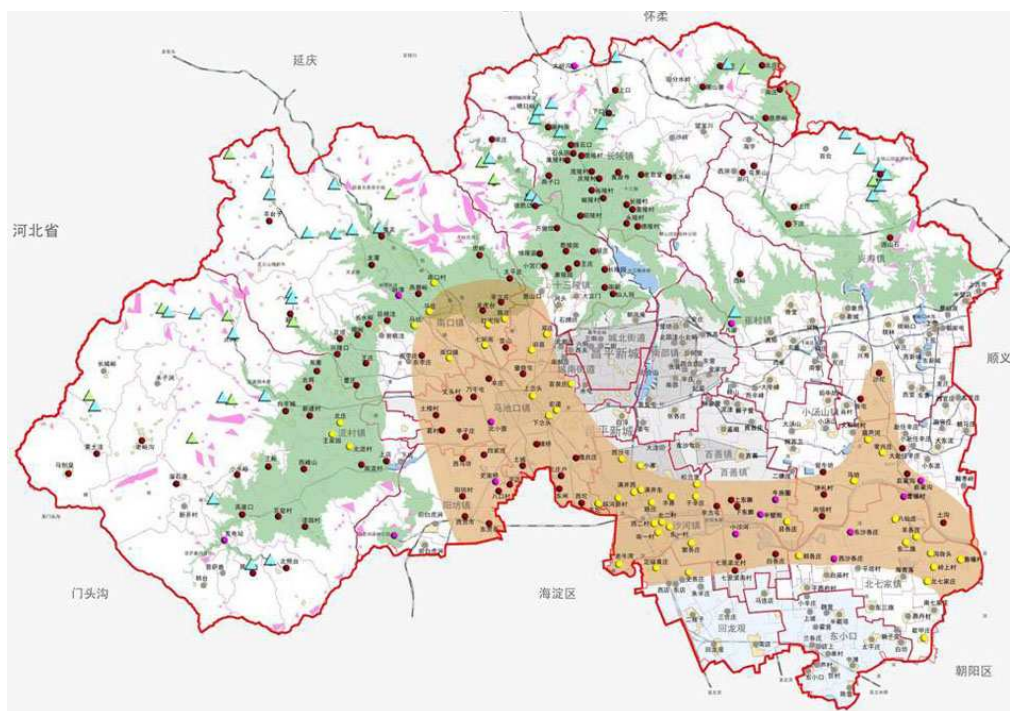
**Figure 7** Classification of villages in Changping District

121 villages are located in the urban expansion area by the urban master plan. Out of these villages, 26 are located in the urban expansion area of the inner city, 50 are located in the urban expansion area of Changping New Town, and 45 are located in the urban expansion area of 15 towns. (Fig.8)





**Figure 8** Distribution of villages to be urbanized



**Figure9** Villages in debris flow areas

There are many factors influencing the development of villages. Among the factors are poor geographical location, conflict with ecological conservation and construction of Beijing's infrastructure.

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(Fig.9)These villages should be developed in control and relocated.

146 villages will be developed.They will remain stable in the long term, and develop urban-based modern agriculture.

To accelerate the development of villages, we should promote urban-rural integrated development; combine the land development with the industrial development; cluster these villages; and build a network of infrastructure and facilities for each village cluster.

## **6 CONCLUSION**

According to the classification guidelines, the Village System Planning intends to deal with the future of villages' development under urbanization so as to realize the sustainable development of rural areas.