Village System Planning in the Rural Areas of Beijing under the Background of Urbanization

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Fast urbanization has already become a main characteristic of socio-economic transition in China.

The unprecedented transformation of both urbanized and non-urbanized spaces occurs faster than ever before, so that a new urban-rural spatial structure is being formed.

As a global metropolis, Beijing is simultaneously undergoing the processes of urbanization and suburbanization.

The development of villages in the surrounding rural areas of Beijing is highly impacted by the socio-economic transformation.
Outline

- What are the villages like in the rural areas of Beijing Municipality?
- What is the role of villages in the metropolitan area under Beijing’s urbanization?  
  4 main functions
- the purpose of the Village System Planning  
  3 main goals
- Village System Planning of Changping District in Beijing  
  as a representative case
Villages in the rural areas of Beijing
Villages in the rural areas of Beijing

China's position in the world

Beijing's position in China
Administrative divisions

Beijing Municipality

Urban and suburban areas
(8 districts)

Rural areas
(8 districts and 2 counties)

Town
(143 towns)

Village
(3,985 villages)

Rural settlement
(12,936 spots)

Villages in the rural areas of Beijing
Villages in the rural areas of Beijing

Population

- Population of Beijing: 16.33 million
- Population of urban areas: 7.21 million
- Population of rural areas: 9.12 million
Urbanization rate of Beijing and China (1978-2007)

- Urbanization rate in China (2007): 45.68%
- Urbanization rate in Beijing (2007): 84.5%
3,985 villages with 12,936 settlements. (1 village can be comprised of 2 or more settlements)

7,442 settlements in the plain.
5,494 settlements in the mountains.
Villages in the rural areas of Beijing

Beiijing rural settlements are identified by the small size, scattered location and large differences in geographical conditions and economic development.

- **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.
Villages in the rural areas of Beijing

- **scattered location**

- In total, 12,936 scattered settlements (spots), 59% settlements (7,513) occupy less than 50 mu (= 3.33 hectares).
- 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.
Villages in the rural areas of Beijing

The development of villages is influenced by both urban developmental trends and the natural geographic conditions.
Villages in the rural areas of Beijing

- 641 villages located near the infrastructure construction
- High voltage transmission lines surroundings
- Radio towers surroundings
- Sewage Treatment Plant
- Waste Disposal Plant

Distribution of villages near the infrastructure construction
Villages in the rural areas of Beijing

- 792 villages located in “green” area for ecological conservation
- Nature Reserve
- Green belt
- Scenic spots
- Forest park

Distribution of villages in “green” area for ecological conservation
**Villages in the rural areas of Beijing**

- 40 villages located in cultural relic conservation area
- Great Wall
- 13 Cemeteries of Ming dynasty

**Influence of urban development on villages – cultural relic conservation area**

**Distribution of villages in cultural relic conservation area**
Villages in the rural areas of Beijing

- 90 villages located in flood zone surroundings

Distribution of villages in flood zone surroundings
Villages in the rural areas of Beijing

- 2,009 villages located in the areas with water resources
- The construction of villages in these areas would affect the water quality.

Distribution of villages in areas with water resources
Villages in the rural areas of Beijing

- 2,395 villages located in erosion-prone areas and earthquake-prone areas
- Serious Debris Flow
- Fault Lines

Distribution of villages in erosion-prone areas and earthquake-prone areas
Villages in the rural areas of Beijing

On the other hand, a series of problems emerge in the villages.

confusion occurs in the villages
uncontrolled expansion
Villages in the rural areas of Beijing confusion occurs in the villages
the inefficient and disordered land use
Villages in the rural areas of Beijing confusion occurs in the villages
the disappearance of original spatial identity and landscape
Villages in the rural areas of Beijing

confusion occurs in the villages

the environmental threat
Villages in the rural areas of Beijing

- After chaotic land development, the villages in the metropolitan area are facing the challenge of restructuring due to the intention of urban-rural integrated development.
- Therefore, it is necessary to optimize the development of villages in Beijing.
the Role of Villages in the Metropolitan Region Under Urbanization
the role of villages in the metropolitan region under urbanization

4 main functions

Villages are the settlements where villagers are living and working, so they must provide the space for the development needed in living and working.

Meanwhile, as a part of a metropolitan region, villages also play an important role in supporting the urban development.

The rural areas do not only provide the available spaces for urban expansion and the “green” areas for ecological conservation, but also provide agricultural produce for the city and tourism that is attractive to urban residents.
the purpose of the Village System Planning
the purpose of the Village System Planning

3 main goals

• to promote urban-rural integrated development
• efficient and sustainable land use in villages
• effectively guide public investment to the construction and development of rural areas.
Village System Planning of Changping District in Beijing
Village System Planning of Changping District in Beijing

- northwest of Beijing
- distance to inner city is 32km
- area: 1,352km²
- population: 782,000
- northwest: mountains
  southeast: plains
17 towns and communities
6 towns and communities located in the urban expansion area of Changping New Town defined by the urban master plan
4 towns are key towns
5 towns are ordinary towns
2 towns located in the urban expansion area of the central city.
Village System Planning of Changping District in Beijing

• 305 villages
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.
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 more dense and uniformly distributed, and the majority are large sized villages and extra large sized villages.

In the mountains, villages are less dense and smaller sized because of changing terrain.
Based on the geographical conditions, the economic development of villages is different.
The villages with tourism-oriented agriculture as their main industry are located in plains and low-elevations, and are based on the beautiful natural scenery.

The villages with tourism as their main industry are located in high-elevations, and are based on the beautiful natural scenery.

The villages with small factories as their main industry are located in the plains with convenient transportation and near the main industrial area.

The villages with service as their main industry are located in the urban expansion area. Migrants rent the houses in the village and commute to inner city.
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.
To relocate villages with difficulties in developing infrastructure that is currently sub-standard.

To rebuild villages in the urban expansion area

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

To promote the development of villages located in the future development areas
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.
Village System Planning of Changping District in Beijing

Classification

- 146, 48%: Villages to be urbanized
- 121, 40%: Villages to be developed in control and relocated
- 38, 12%: Villages to be developed
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.
2. Villages to be developed in control and relocated

- 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.
Villages in debris flow areas
Villages in earthquake-prone areas
Villages in infrastructure construction areas
Villages in areas with water resources
Villages in “green” areas for ecological conservation
Villages in cultural relic conservation area
These villages should be developed in control and relocated.
They will remain stable in the long term, and develop urban-based modern agriculture.
The development of villages

- to promote urban-rural integrated development.
- to combine the land development with the industrial development.
- to cluster these villages, and to build a network of infrastructure and facilities for each village cluster.
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.
• Thanks!