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Planning and Construction of Jiading New City in Shanghai

Shanghai Urban Planning and Design Research Institute



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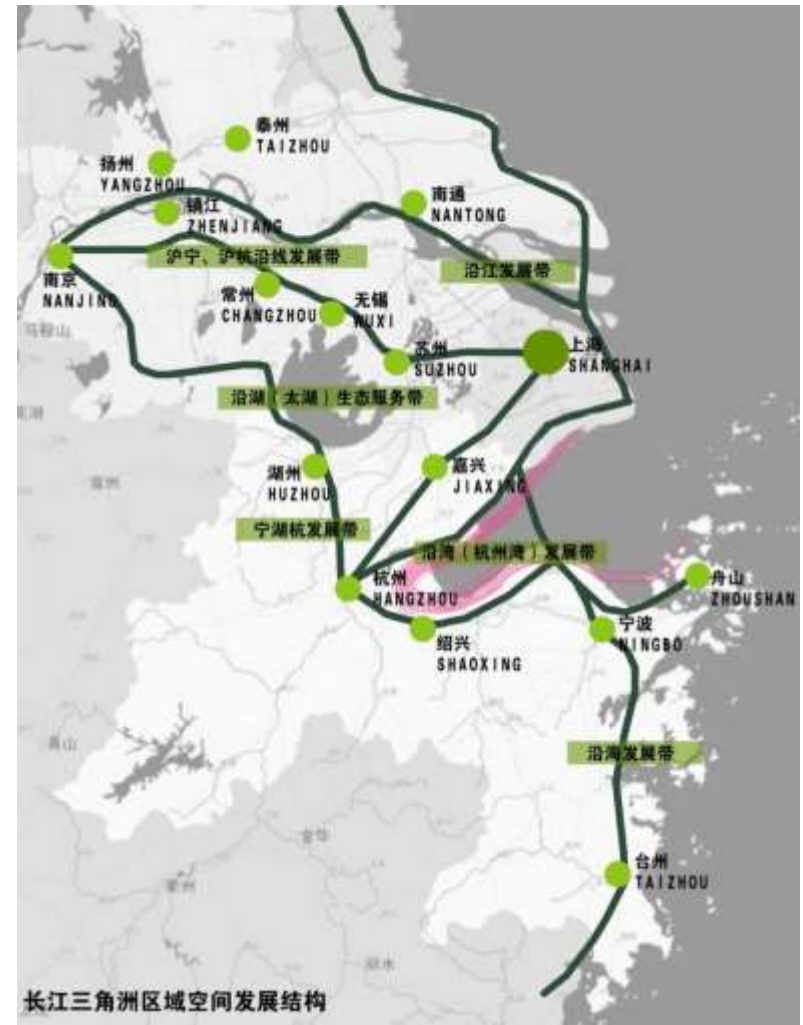
**Evaluation on the Implementation
of the Plan**



I. Overview

I. Overview

With the trend of new-type urbanization, and a rapid integration process of the Yangtze River Delta, as well as closer cooperation between cities in the region, new cities are planned and constructed in the suburban area of Shanghai Municipality, as a new engine and path to the innovation and transformation of the city.

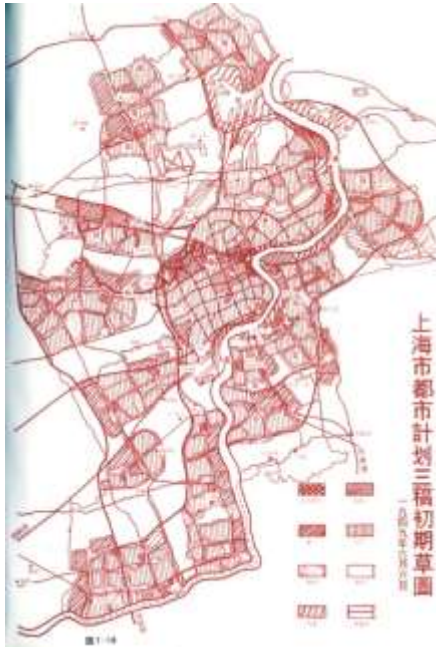


Source : *People-oriented, scientific plan to speed up the transformation of Shanghai Metropolis creative development*. Research paper by Shanghai Municipal Planning and Land and Resource Administration Bureau.

I. Overview

The towns in the suburban area of Shanghai underwent a transformation from “**satellite city**” to “**new city**”, during which the basic principles of “optimizing the functions of city center and its organic decentralization by nurturing urban nodes along the transport axis so as to facilitate the formation of a poly-centric urban structure” have been implemented.

1949



Suburban towns

1959



Satellite cities

1986



central city- satellite city-
suburban town- market town

1999



Central city- new city-
central town- general town

Source: *Tracking and Embarking on a new path: Evolution of Shanghai Urban Planning*. Shanghai Urban Planning and Design Institute, 2007.

I. Overview

In 2001, *Comprehensive Plan of Shanghai* approved by the State Council proposed to construct 11 new cities/areas in the suburban area.

During the period of the Tenth Five-Year Plan, pilot projects of “one city and nine towns” were carried out to explore the path of urbanization in suburban areas and to promote their characteristics and diversity, which helped to accumulate experience in suburban town development.

During the Eleventh Five-Year Plan, according to the requirement of “three centralizations”, the “1966” Urban-Rural Planning System of Administrative region of Shanghai was put forward, which developed an overall plan of Shanghai at the four levels of central city, new cities, new towns and central villages. It is the first attempt to include both urban and rural areas in one city plan, establishing the basic frame of urban-rural planning in Shanghai.



I. Overview

Jiading District

Jiading District is located in the northwestern part of Shanghai, covering an area of 463 square kilometers, with 221 square-kilometer construction land and a population of 1.5062 million in 2011.

Located in the Shanghai-Nanjing growing axes, Jiading is characterized by the automobile industry, and its economic growth takes the lead in the suburban areas of Shanghai.



Source: *Research on Shanghai Metropolis Urban-rural Development Planning Strategies in the Context of Innovative Transformation*. Shanghai Urban Planning and Design Institute, 2012.

I. Overview

Jiading New City

Based on the 1956-1967 Short-term City Plan, Shanghai Municipal Government approved the construction of 5 satellite cities with a population of 200,000, namely Minhang, Wujing, Jiading, Anting and Songjiang, and made Nanxiang as ordinary town

In 1986, a four-level urban structure featuring central city- satellite city- suburban town- market town was specified by the *Comprehensive Plan of Shanghai* which had been approved by the State Council. Jiading and Anting continued as satellite cities and Nanxiang as general town



Source: Tracking and Embarking on a new path: Evolution of Shanghai Urban Planning. Shanghai Urban Planning and Design Institute, 2007.

I. Overview

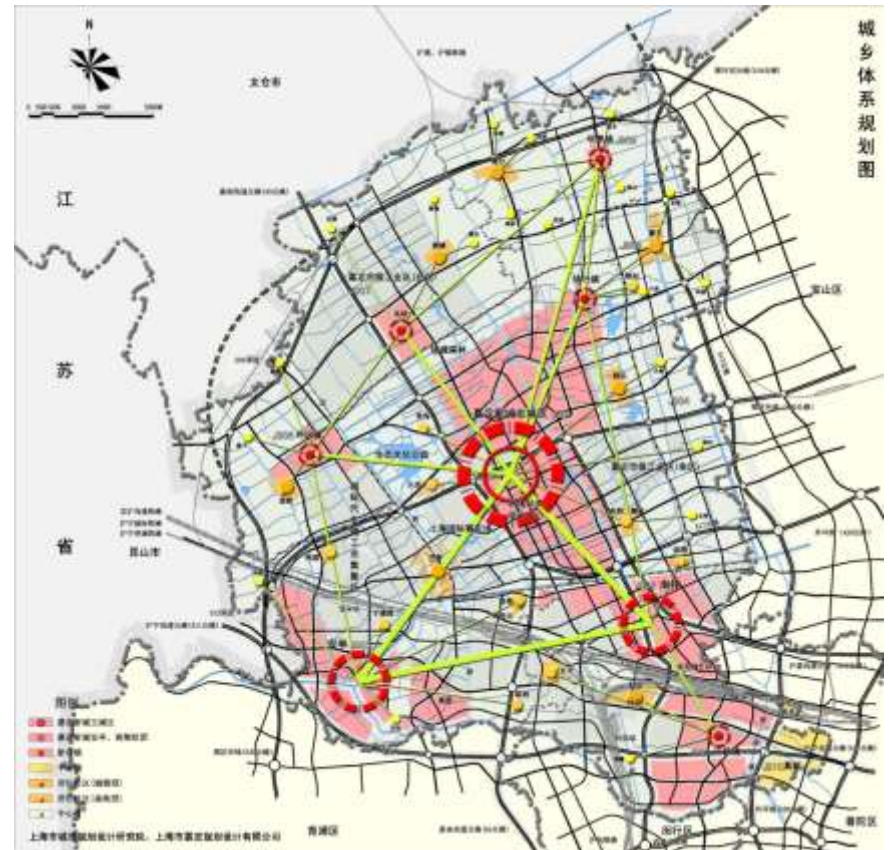
Jiading New City

In the 1999 Comprehensive Plan, Jiading was made one of the 11 new cities with a planned population of 250,000. Anting and Nanxiang were categorized as central towns with a population of 100,000

The Master Planning of Jiading District approved in 2007 specified that the Jiading New City is composed of the core area of Jiading New City, Nanxiang Town and Anting Town.



Source: Shanghai Master Plan (2000-2020)



Source: Implementation Plan for Jiading District-level Master Plan (2006-2020)

I. Overview



New city construction is one of the key development strategies in Shanghai after the 2010 EXPO.

The development strategy of spaces in Shanghai has shifted to the new cities in suburban areas after the EXPO, as one of the most important measures to optimize the development level and prepare for a strategic transformation in the future.

New city construction helps to boost the economic growth of Shanghai.

The construction of new cities in the suburban areas will narrow the gap between central city and the new city, and facilitate the life and production of local population by the improvement of local infrastructures, education and medical resources, injecting new vitality for the future development.

New city construction provides enormous space and opportunities for the development of Shanghai.

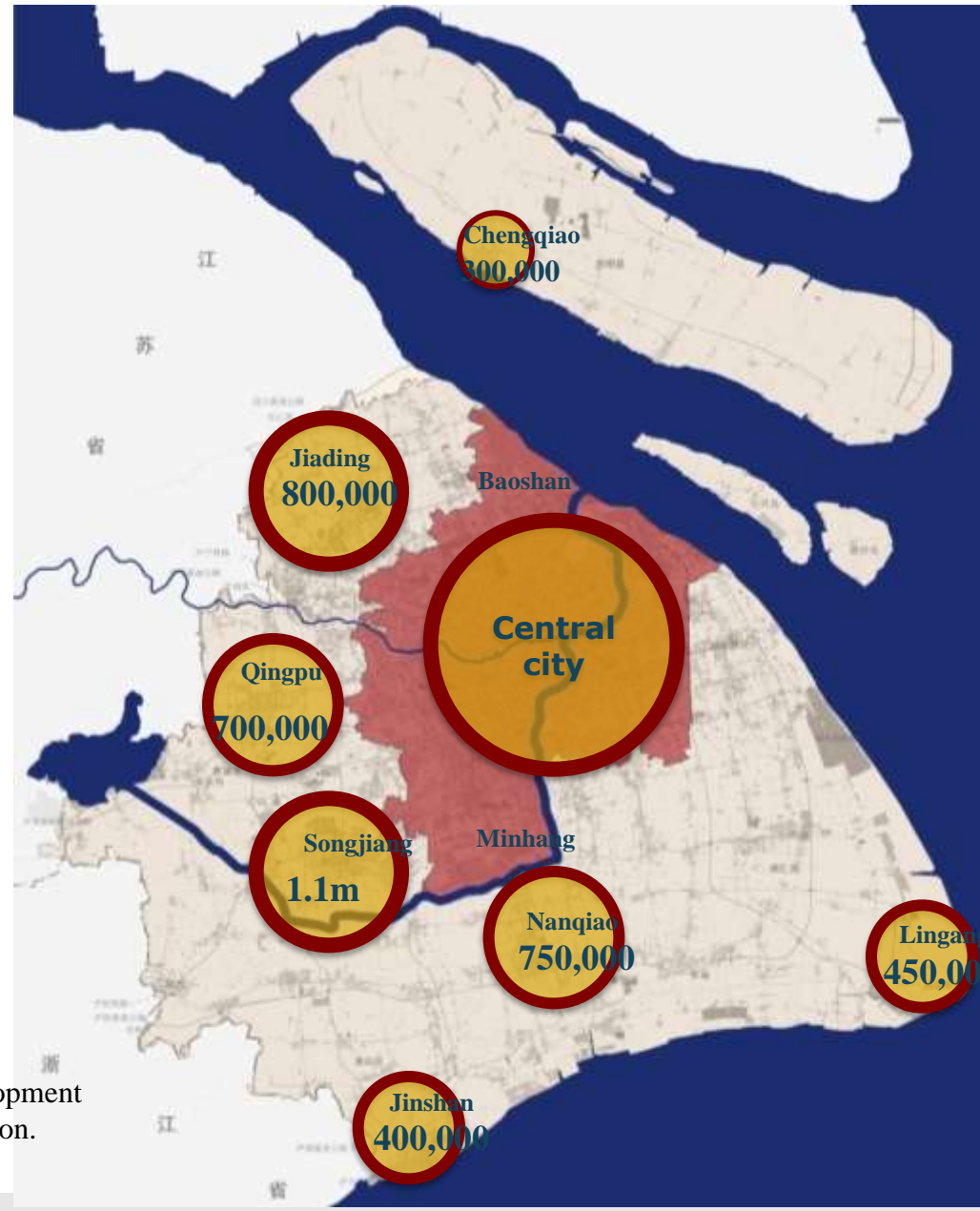
As a continuation of the shift of focus on urban areas to suburban areas, the move adapts to not only the new strategic needs of the region, but also the “city-region” spatial pattern of megacities in the world.

I. Overview

Objective :

By 2020 the new city will see a breakthrough in its development. A new city group in the suburban area will take shape to complement the functions and development of the central city.

Jiading and Songjiang New city would have established their roles as the urban nodal point in the Yangtze River Delta, with a population of 800,000 to 1,000,000. New cities of Lingang, Qingpu and Nanxiang act as areas with high radiation functions of a population of 600,000 to 800,000, and new cities of Jinshan and Chengqiao with 200,000 to 400,000 people to activate the dynamics of surrounding areas.



Source: Research on Shanghai Metropolis Urban-rural Development Planning Strategies in the Context of Innovative Transformation. Shanghai Urban Planning and Design Institute, 2012.



II. Land Utilization and Transportation

II. Land Utilization and Transportation

Since the Tenth Five-Year Plan, new cities in suburban areas have been a new force of urbanization in Shanghai.

Remarkable achievements have been made in the planning and construction of Jiading New City, with a formation of linkage mechanism between the old and new areas and a framework of public facilities and infrastructures in the central area. Landscaping projects are pushed forward. High standards are introduced in utilities and functional projects to upgrade the service level of the city, leading to the centralization of population in the new city area.



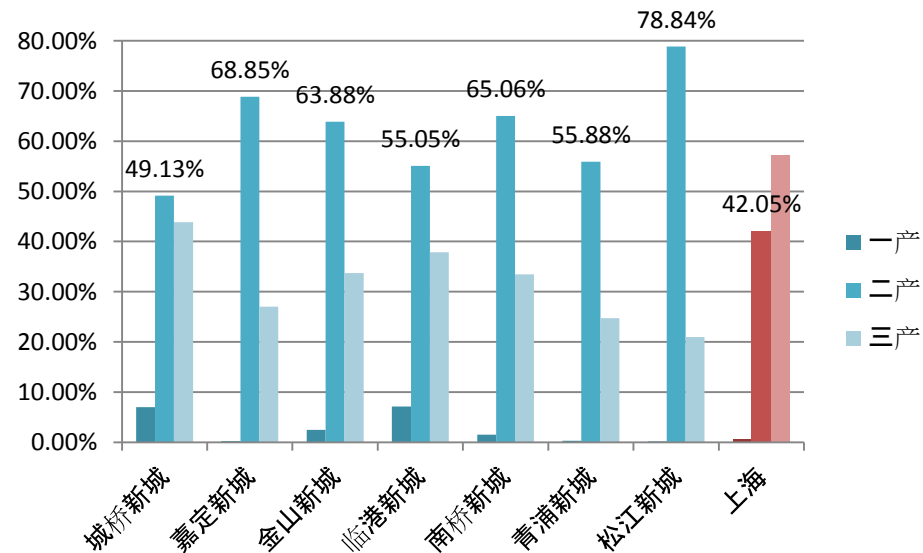
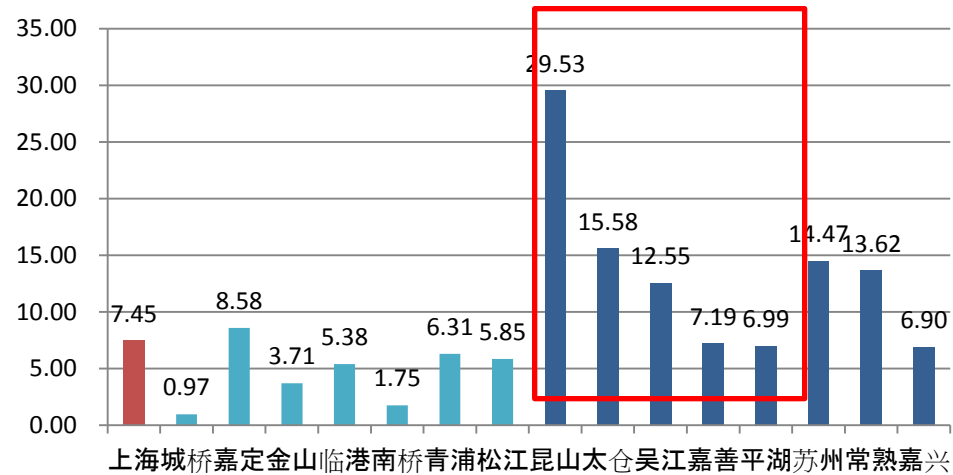
II. Land Utilization and Transportation

1. Social and Economic Development

The GDP per capita of Jiading New City has reached the average level of Shanghai, while still falls behind the neighboring urban towns adjacent to Shanghai in the Yangtze River Delta like Kunshan and Taicang.

In the phase of "secondary-tertiary-first" industrial structure, the current development of the new city is dominated by the secondary industry, with a ratio of 65%, a little bit higher than other urban towns in the Delta area (60-65%) such as Kunshan, Taicang, Wujiang, Jiashan, Pinghu

GDP per capita (10 thousand yuan)



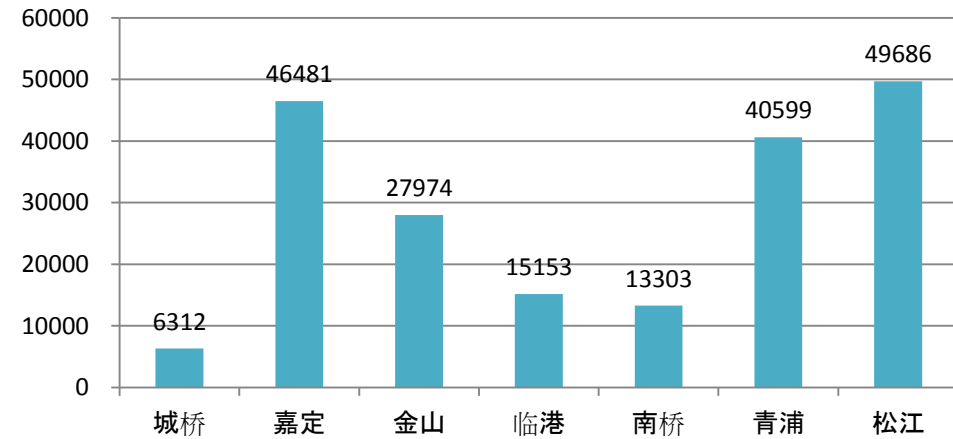
Data from Shanghai, Jiangsu and Zhejiang Statistical Yearbooks.

II. Land Utilization and Transportation

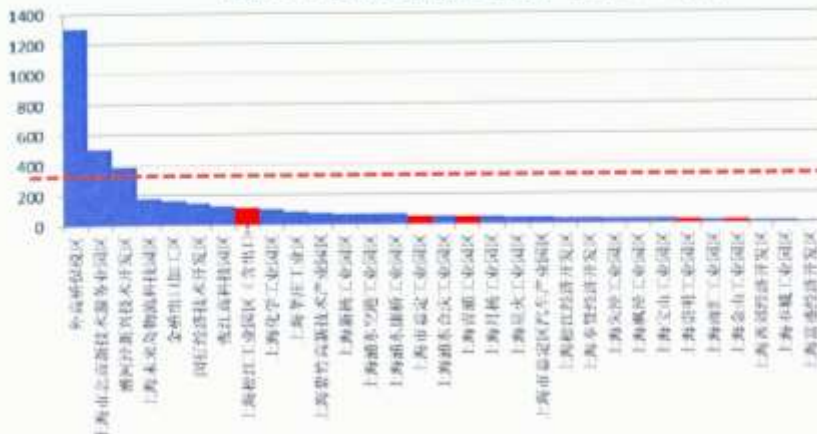
1. Social and Economic Development

The out-put of construction land in the new city is below the average level of Shanghai and the level of Jiading core area. Besides, there are huge gap between the new cities in Shanghai, with the highest out-put in Songjiang, followed by Jiading and Qingpu, and Chengqiao, Nanqiao and Lingang the lowest.

Out-put of Land(10 thousand yuan/km²)



上海31个市级以上开发区地均产值 (2010年)



上海31个市级以上开发区投资强度 (2010年)

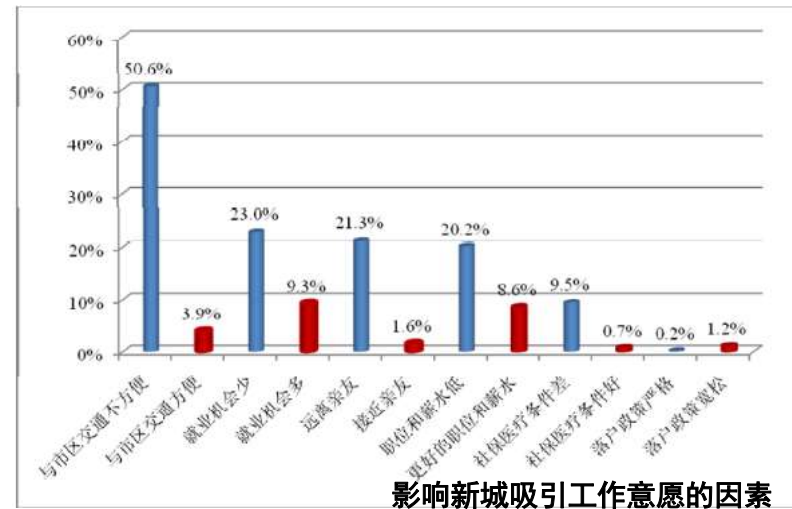
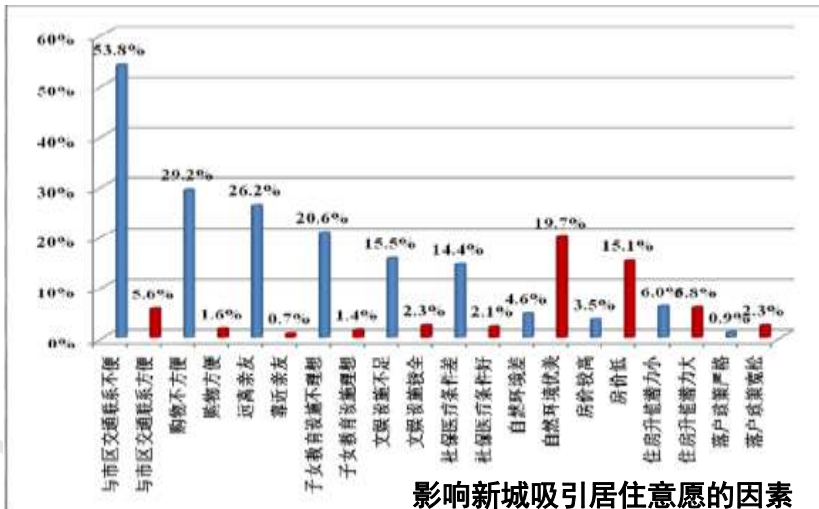
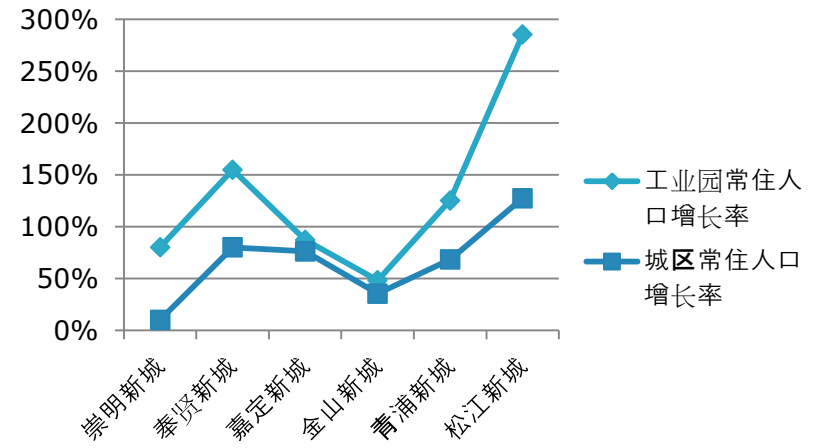
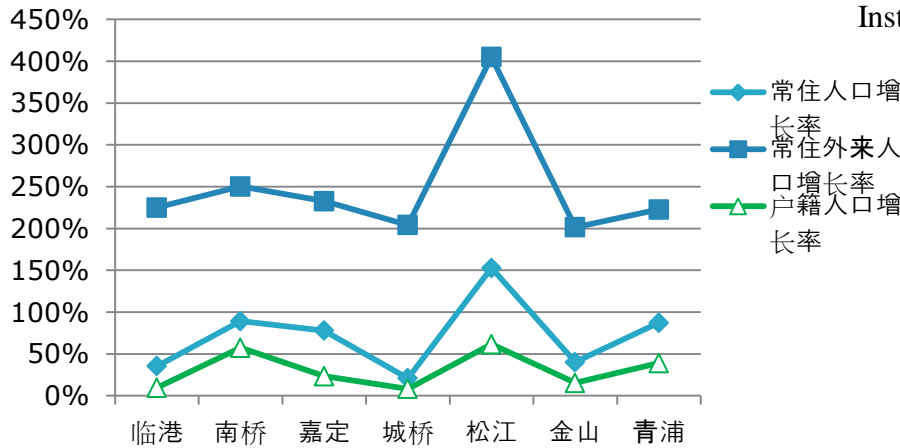


II. Land Utilization and Transportation

2. Development of Population

From 2000 to 2010, migrants are the most important contribution to the population increase in Jiading New City.

Source: Shanghai Statistical Yearbook and Evaluation on New City Construction Planning published by Shanghai Urban Planning and Design Institute.



II. Land Utilization and Transportation

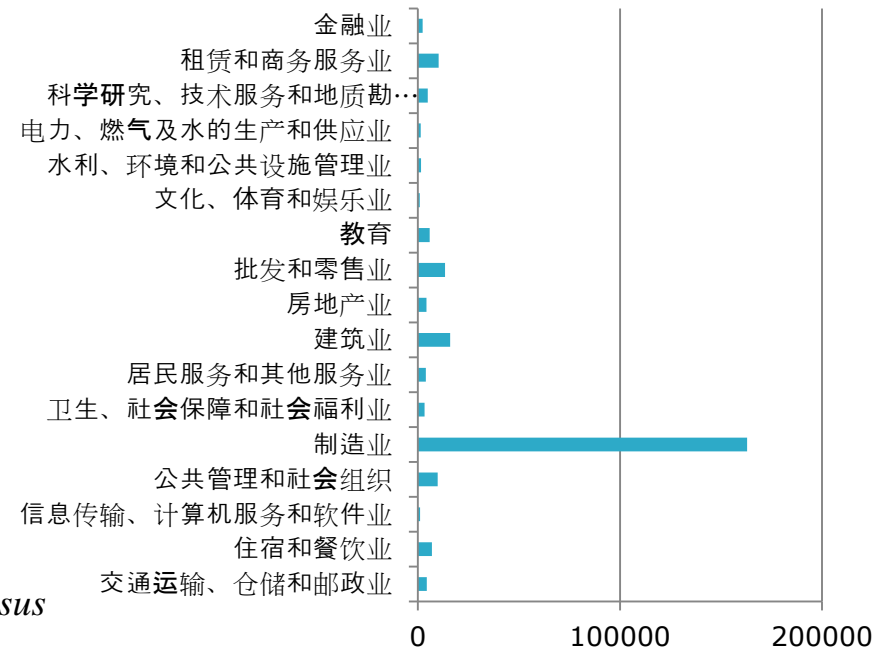
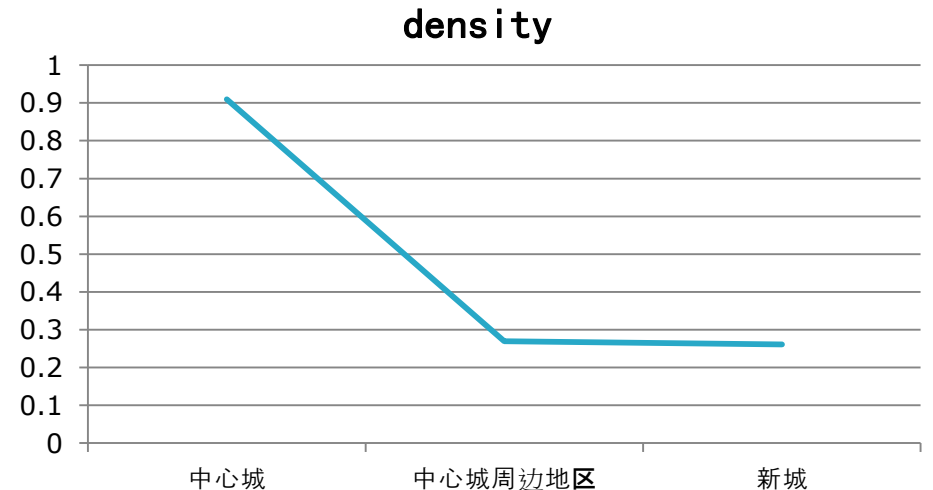
3. Employment

The employment density ratio of new cities is 2600 population per square kilometer, equivalent of 29% of the central area of Shanghai.

The work-home ratio in new cities is 0.52, higher than the central area and adjacent areas, but with a steady balance between the job numbers and the population.

Most of jobs in Jiading New Cities are manufacturing jobs

Source: *The Second Shanghai Municipal Economic Census*

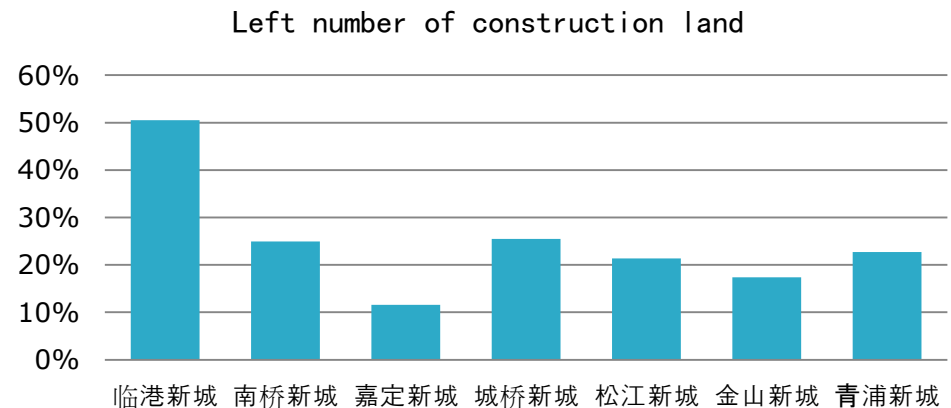
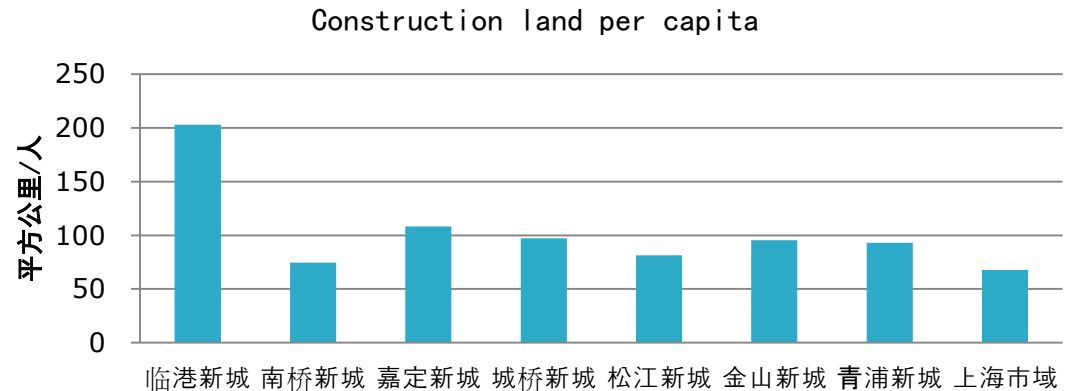


II. Land Utilization and Transportation

4. Utilization of Land

The urban development land (except for industrial land) per capita of Jiading New City is above the average in Shanghai, and is relatively high compared with other new cities of Shanghai.

The left construction land within the intensive development areas is no more than 15% in Jiading New City, the least among all the new cities, in face of a strain of land resources.



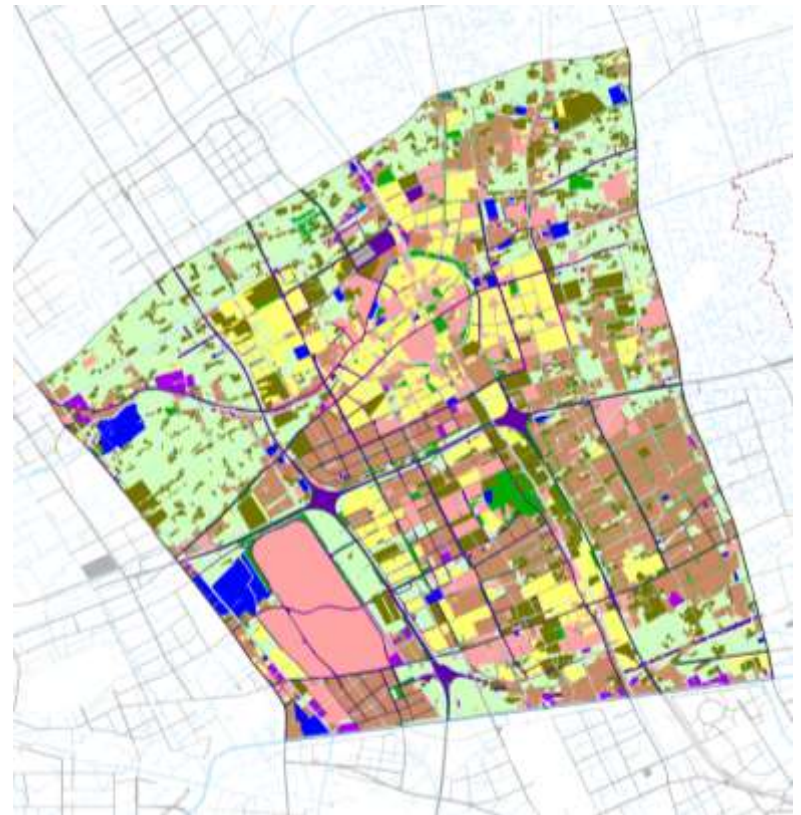
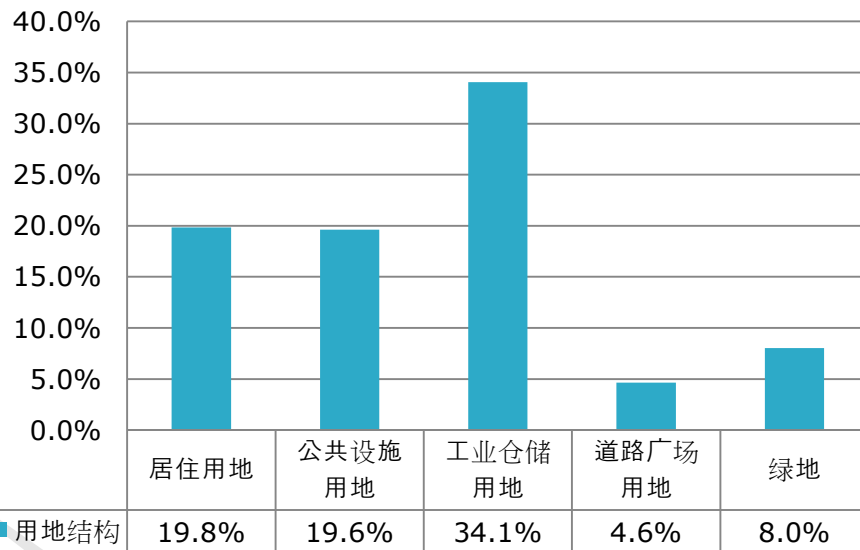
Source: Shanghai Statistical Yearbook and Land Use Database of Shanghai Urban Planning and Design Institute

II. Land Utilization and Transportation

4. Utilization of Land

A small portion of land were used for roads, public squares and green space, while a large portion goes to industrial use.

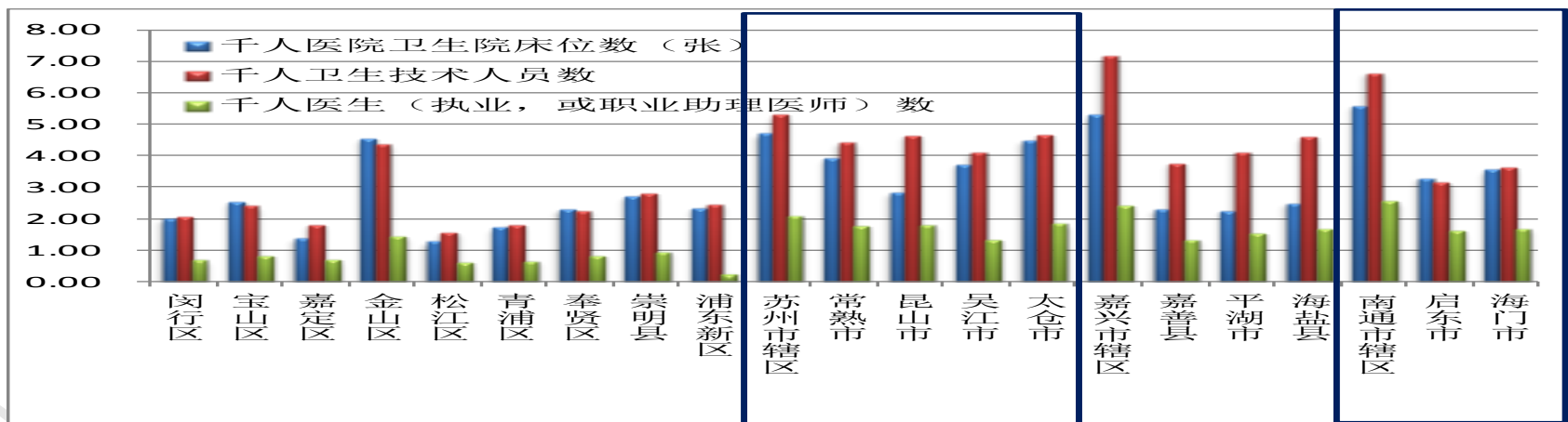
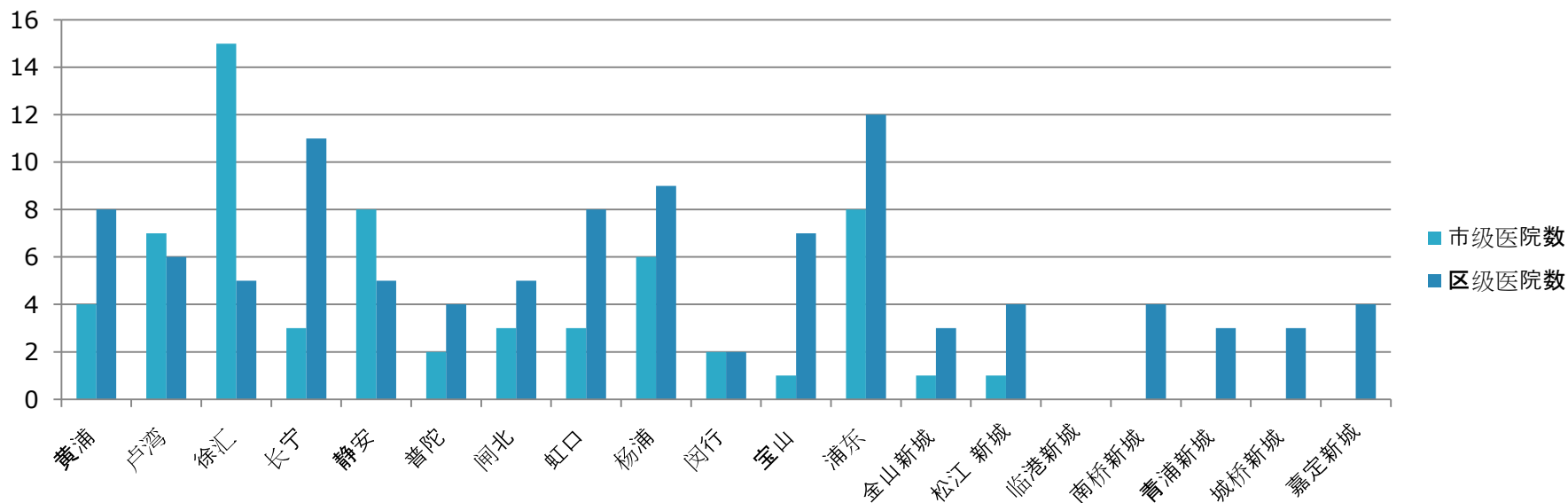
The per capita land for residential use (30 km²), public facility (30 km²), industrial use (49km²) and green space(12 km²) are above the average level in Shanghai.



Source: Land Use Database of Shanghai Urban Planning and Design Institute

II. Land Utilization and Transportation

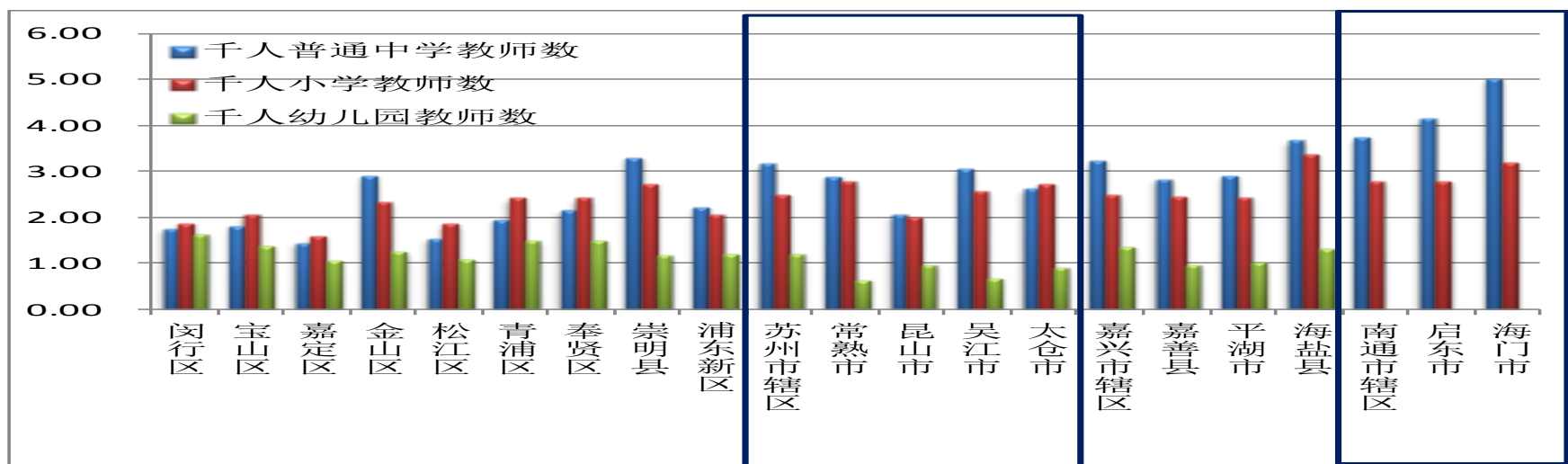
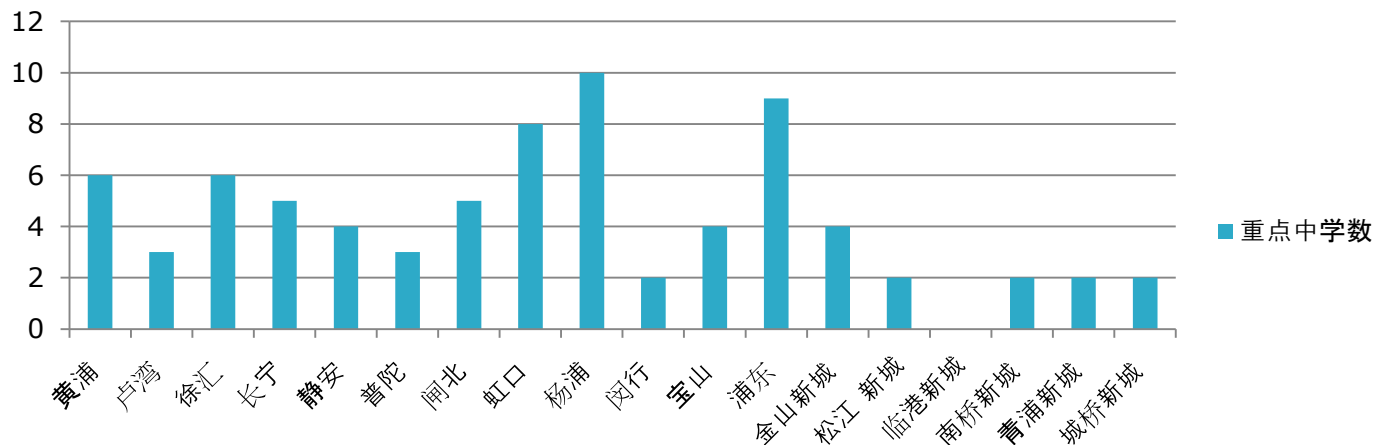
5. Public Facility



Source: All the data are 2011 from 2012 Shanghai Municipal Statistical Yearbook, Shanghai Suburban Statistical Yearbook and statistical yearbooks for Suzhou, Nantong and Jiaying, in which the population base is the resident population according to the sixth census.

II. Land Utilization and Transportation

5. Public Facility



Source: All the data are 2011 from 2012 Shanghai Municipal Statistical Yearbook, Shanghai Suburban Statistical Yearbook and statistical yearbooks for Suzhou, Nantong and Jiaxing, in which the population base is the resident population according to the sixth census.

II. Land Utilization and Transportation

6. Transportation

High-quality municipal transportation facilities vs. inferior inter-city transport

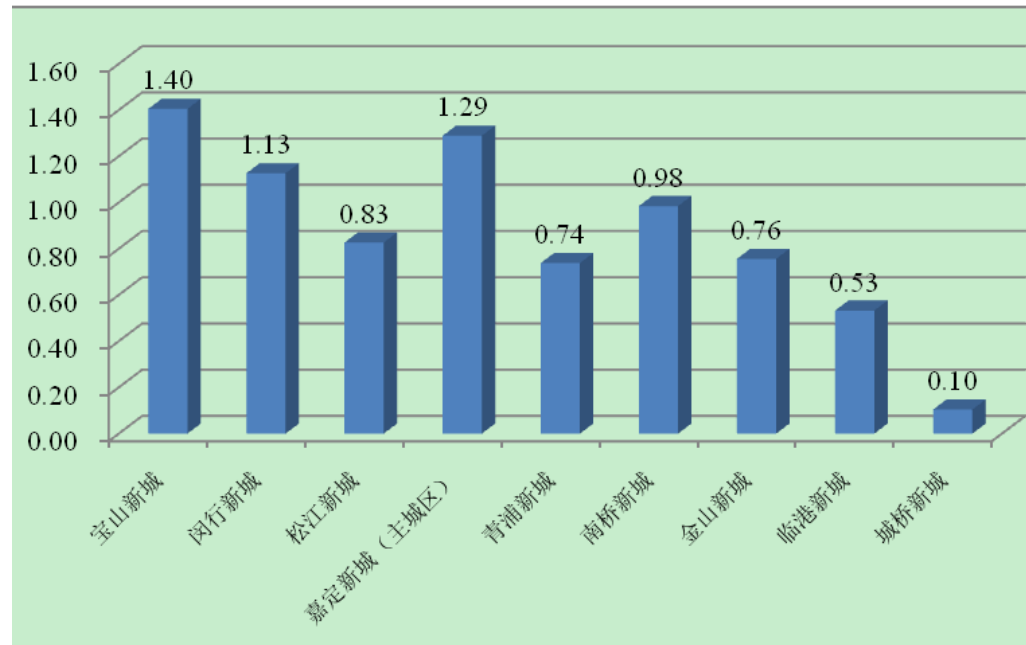
A transport network composed of expressways, arterial highways and rail transit has facilitated the accessibility and development of Jiading New City. The railway station in Jiading, such as North Anting Railway Station, without a completed distribution system, fails to serve the inter-city transportation in a high-quality level.

There is excessive reliance on the expressway between Jiading and the central area for the commutes

Transportation facilities within the new city should be improved:

relatively low coverage of roads (1.7km/km² in central city), with 300m and 500m bus-line coverage of 12-36% and 26-65% (68% and 86% in central city), repeated tour lines, detours, short service time, long intervals and traffic jam in rush hours.

Source: Evaluation on New City Construction Planning published by Shanghai Urban Planning and Design Institute



II. Land Utilization and Transportation

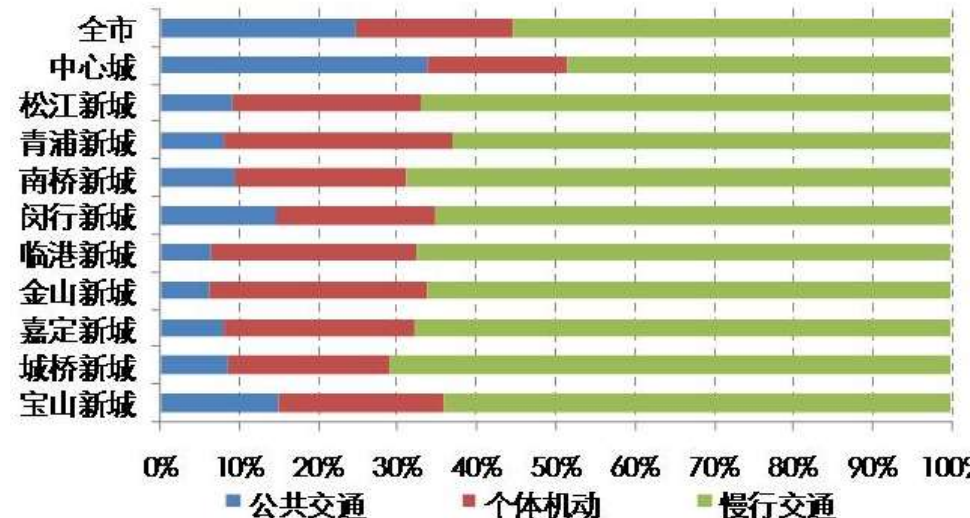
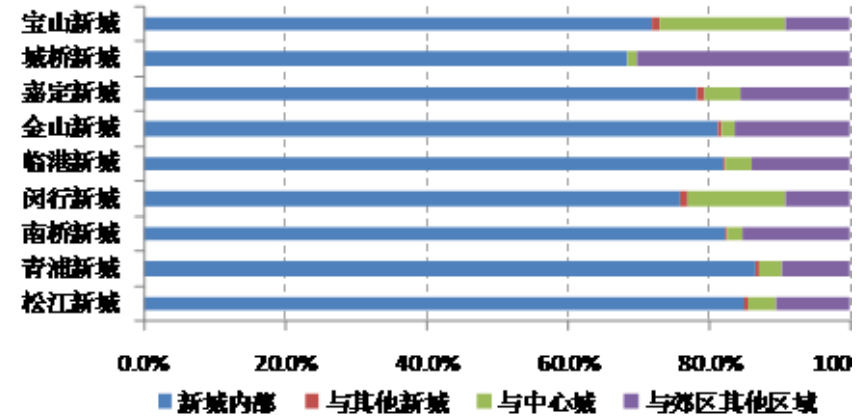
6. Transportation

The transport network is oriented to the inner demands of Jiading, at the same time with close links with adjacent areas and the central city.

The percentage of transport lines within the new city, to other suburban areas, to the central city, and inter new cities are respective 79%, 11%, 9% and 0.8%.

Dominant role of slow transportation and emerging private vehicles.

More than 60% of the commuters take the slow transportations, and less than 10% travel by bus. The vehicle license exclusively for suburban areas (no entry into the areas within the our-ring in working days) has promoted a high percentage of private vehicles to 20%, equivalent to the central city, but dominated by motorbike especially in remote areas.



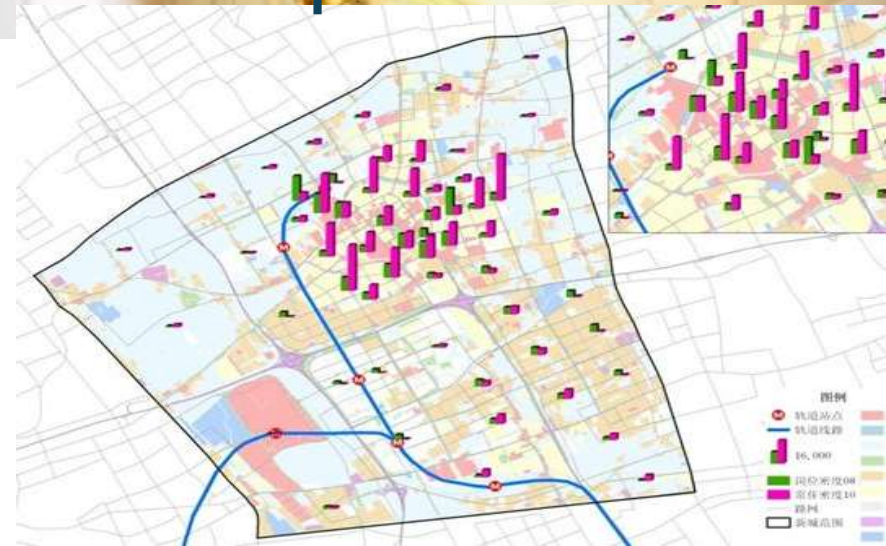
Source: Evaluation on New City Construction Planning published by Shanghai Urban Planning and Design Institute

II. Land Utilization and Transportation

6. Transportation

Passenger Flow of Rail Transit

According to the passenger flow of Metro Line 11, more than 34,700 passengers are loaded in the new city area every day, accounting to 57% of the entire Jiading district. 19% of the passengers get down in Jiading district, and 69% in central city. The rail transit serves the out-going demands of the new city.



Drop-off Area	New City Station		Other stations in Jiading	
	volume	percentage	volume	percentage
Jiading	1394	19%	1996	19%
Within inner-ring in west of Huangpu River	1683	23%	2492	24%
outside inner-ring in west of Huangpu River	2555	35%	3551	34%
Within inner-ring in east of Huangpu River	216	3%	323	3%
outside inner-ring in east of Huangpu River	562	8%	830	8%
other	842	12%	1183	12%

Source: Evaluation on New City Construction Planning published by Shanghai Urban Planning and Design Institute

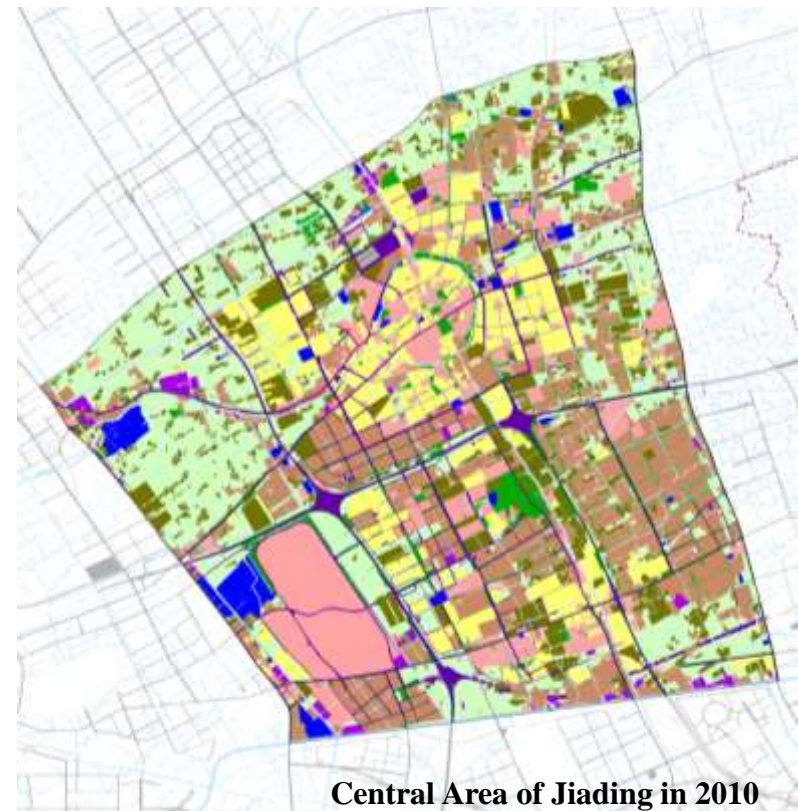
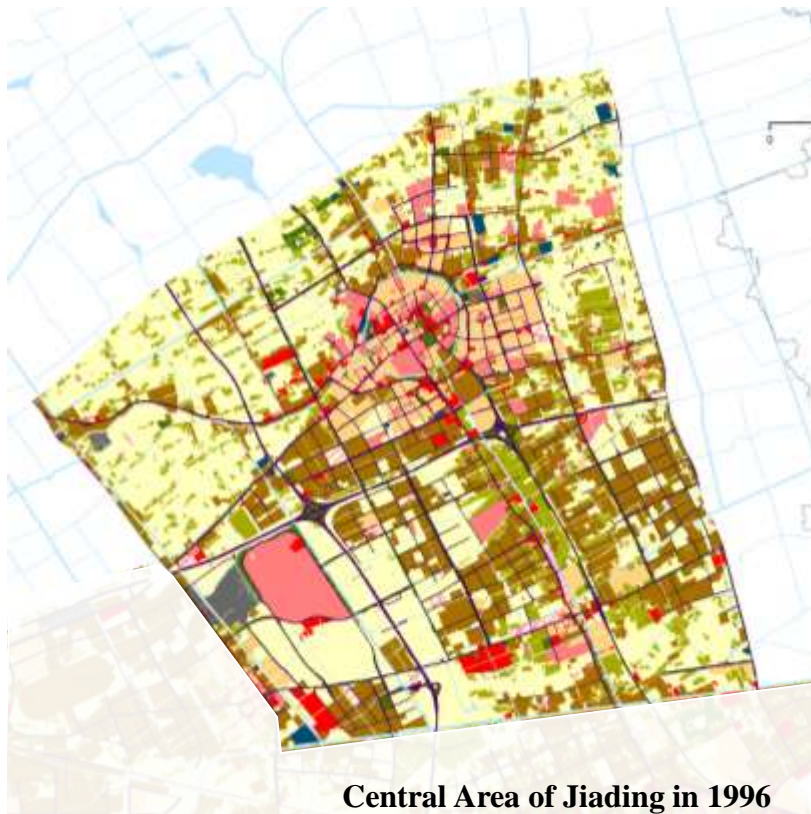


III. Evaluation on the Implementation of the Plan

III. Evaluation on the Implementation of the Plan

As an old industrial base in Shanghai, Jiading accommodates a number of parks and lands for industrial use. In its southwards development, Jiading New City adopts a strategy of “overall planning and staged building” to reconstruct the industrial land and adapt it to the core area and residential area in the new city.

Source: Land Use Database of Shanghai Urban Planning and Design Institute



III. Evaluation on the Implementation of the Plan

(2) Cityscape

The objective of planning is to build a livable city featuring a green and blue ecological environment composed of “one lake per kilometer, a forest per hectare, with interwoven waters and fragrance of lotus”, with attraction for people to live and work.

Source: Jiading Urban Planning and Land Resource Bureau



III. Evaluation on the Implementation of the Plan

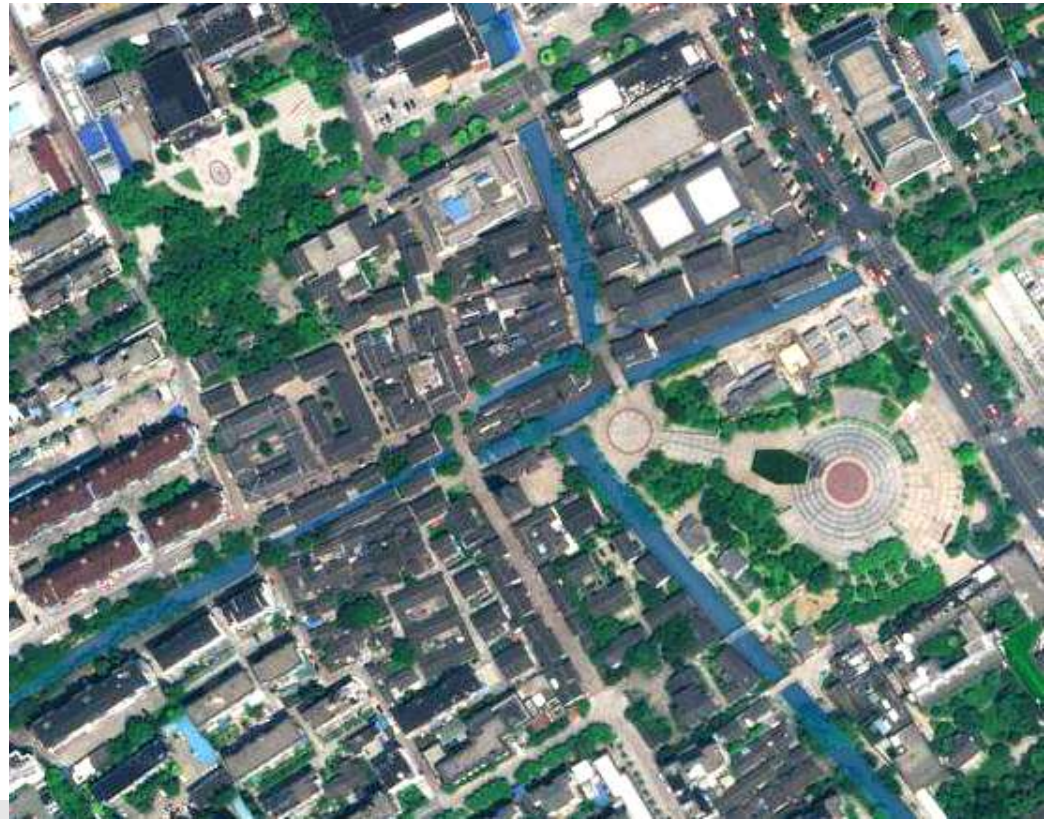
(2) Cityscape

Known as a historic cultural city, the historic area in the northern district has been well preserved and conserved, with a relatively low height of buildings to highlight the spatial character led by the Fahua Pagoda, the local landmark.

The new area in the south presents a modern style of simplicity, fitting into its industrial orientation as a motor town. According to the result of current constructions, the whole district will show an integrated and contracted style with both water-town traditions in the south Yangtze River Delta and the concise modernism.



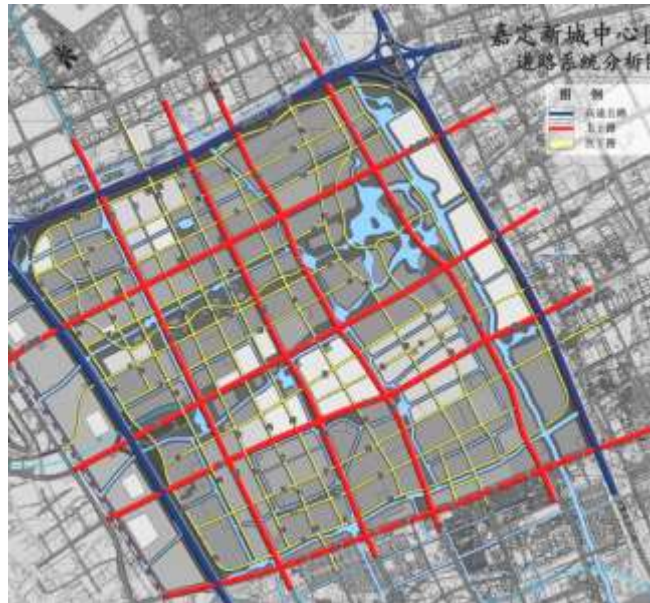
Photo taken by Zhan Yunzhou



III. Evaluation on the Implementation of the Plan

(2) Cityscape

In the next phase of construction, the small-scale character of neighborhoods in central district will be highlighted, meanwhile a more flexible and accessible transport will be built by adding more bypasses, constructing corridors within the neighborhoods, improving cross-sections of roads and pedestrian streets to inject vitality into the area



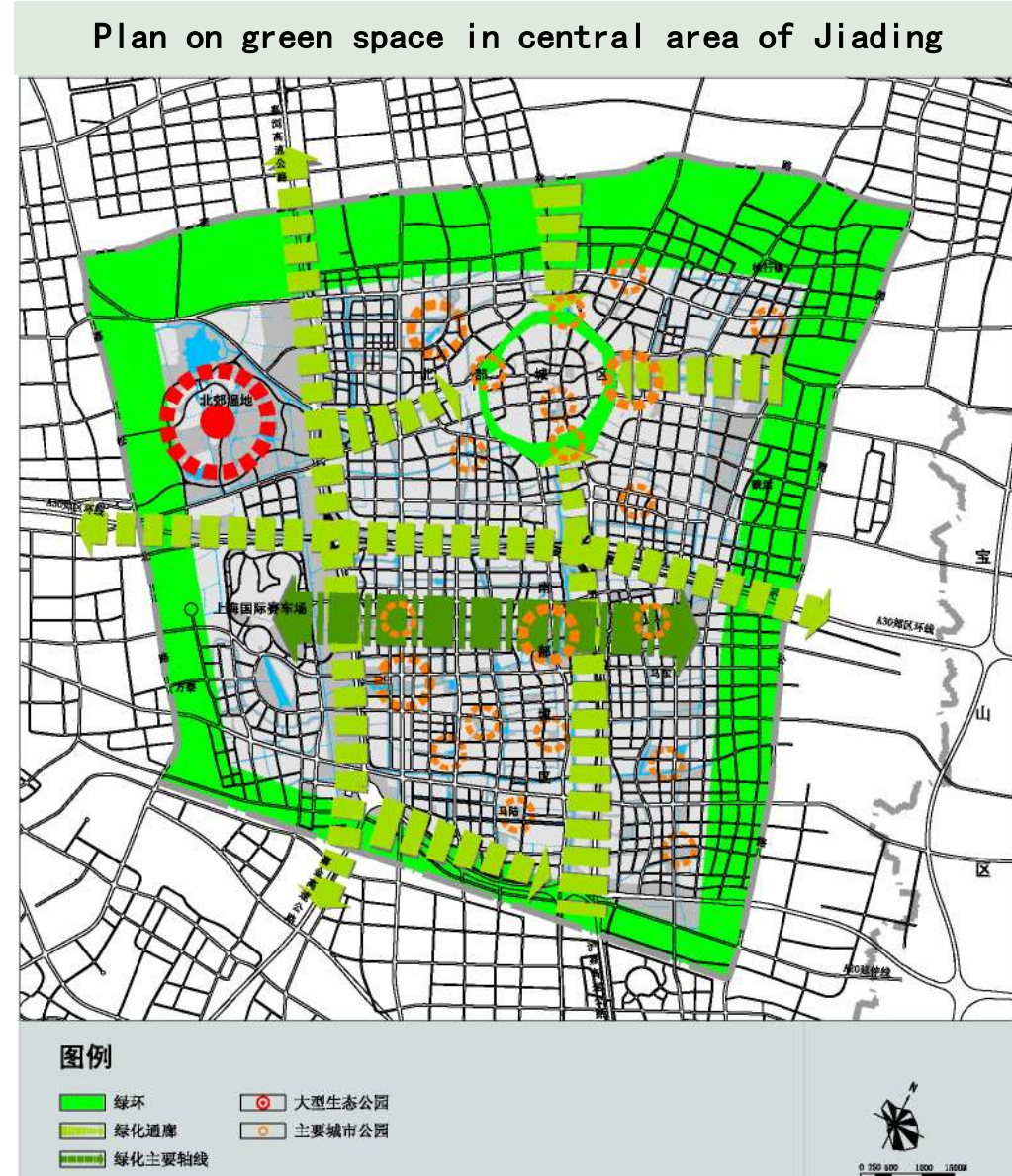
Images are from Internet.

III. Evaluation on the Implementation of the Plan

(3) Ecological Projects

The Master Plan specifies a green space system made up of areas covering “one core, one axis, two rings and multiple parks and corridors”.

More space has been reserved for ecological projects in the development of Jiading New City. The country park in northern Jiading and suburban forest rings facilitate the improvement of life quality of the new city in the future



Source: Revised General Planning for Downtown Area of Jiading New City (2012-2020) published by Shanghai Urban Planning and Design Institute

III. Evaluation on the Implementation of the Plan

(3) Ecological Projects



Ziqidonglai

Yuanxiang Lake



Greens and ponds

III. Evaluation on the Implementation of the Plan

(4) Public Service Facility

Priorities have been given to public facilities in the construction of the new city. With completion of facilities serving cultural, education, sport and health functions, the public service and facilities have been largely improved in the new city

In November 2008, the construction of Phase one projects of **Yuanxiang Lake** started, echoing with the F1 track to the west of **Ziqidonglai Park**.

In January 2009, the design of **Jiading Poly Theater** (by the famous architect **Tadao Ando**) was unveiled.

In April 2009, opening ceremony of **Jiading Friendship Park** was held in the new city.

In August 2009, **Jiading New City Planning Exhibition Center** was completed and open to public. On December 24, the north division buildings of **Shanghai Ruijin Hospital** kicked off.

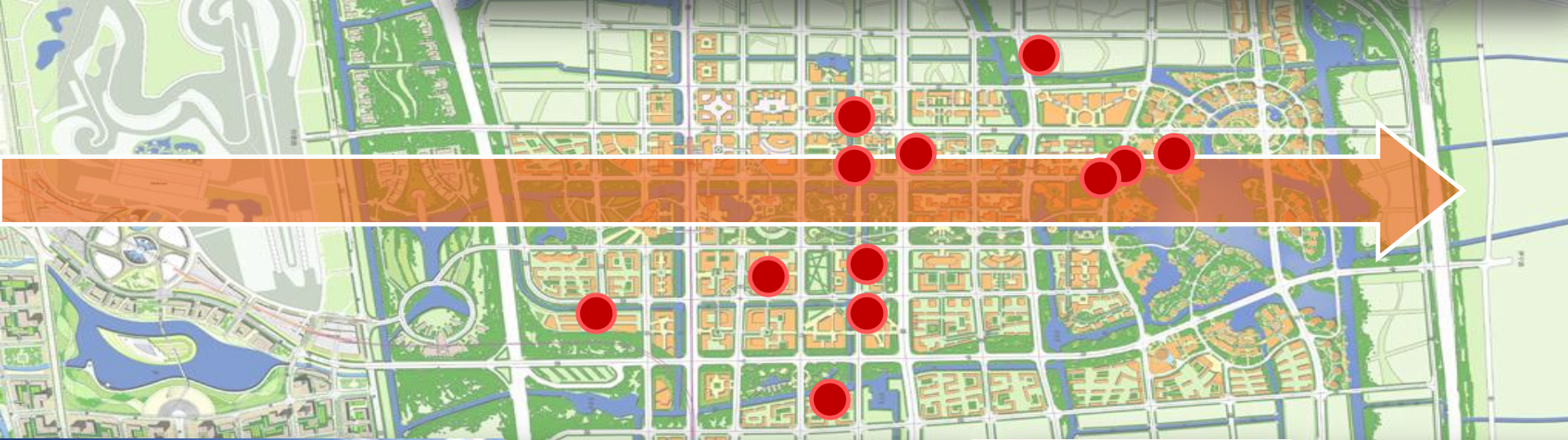
In November 2009, the signing ceremony of **Shanghai Jiaotong University High School - Jiading Campus** were held.

In December 2009, **the first section of the north end of Line 11** was completed and put into use.

In January 2010, the construction of new **Library and Museum** started.

III. Evaluation on the Implementation of the Plan

(4) Public Service Facility



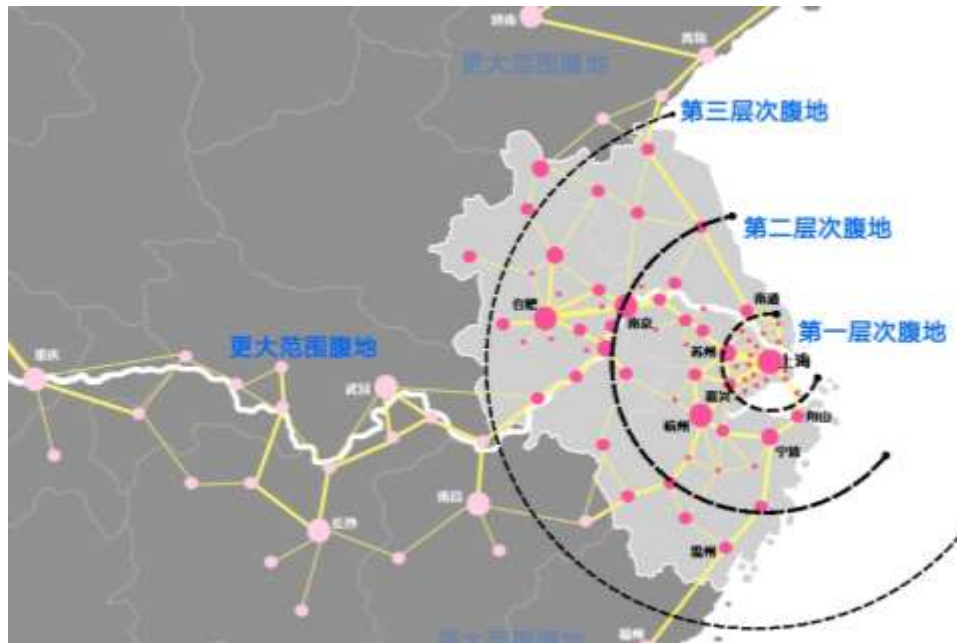
III. Evaluation on the Implementation of the Plan

2. Some Conclusions

(1) Regional Integration

Vision of the Delta area:

a city cluster composed of three provinces of Jiangsu, Zhejiang and Anhui and one municipality, with the lead of Shanghai to evolve a multi-level regional network.



Vision of the Metropolitan area:

to seek opportunities of strategic cooperation based on the interlinking mechanism of society, economy and environment as well as the frequent interaction between Shanghai, Suzhou and Jiaxing city.

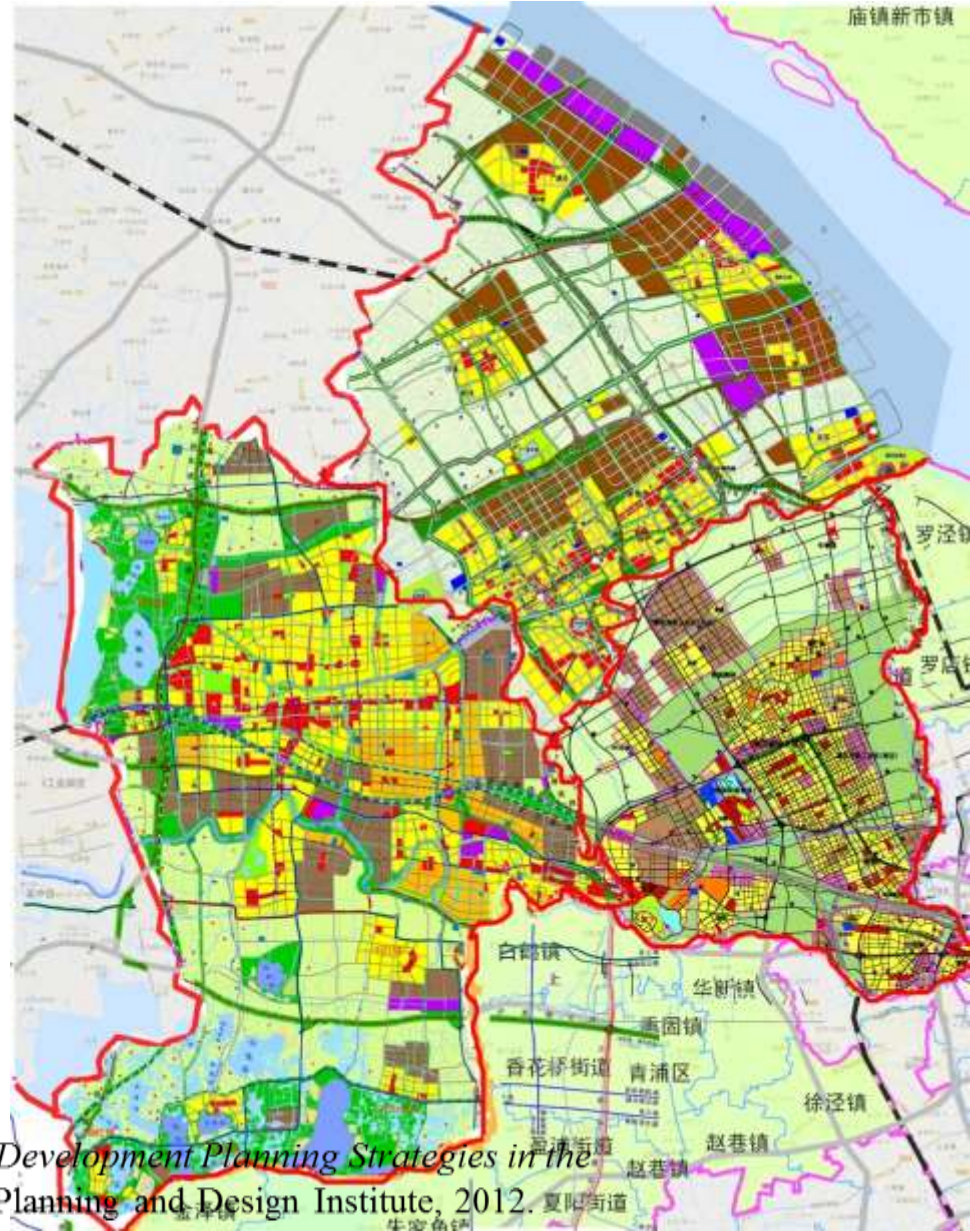


Strategic Plan of Shanghai Metropolitan

III. Evaluation on the Implementation of the Plan

(1) Regional Integration

Located in the northwest gateway of Shanghai, Jiading is the frontier connecting to Jiangsu Province, but regional cooperation is not fully considered in its planning and construction process. More thoughts should be given to the integrated development in terms of industrial structures, land layout and transportation with adjacent towns and cities, in particular Kunshan and Taicang.



Source: *Research on Shanghai Metropolis Urban-rural Development Planning Strategies in the Context of Innovative Transformation*. Shanghai Urban Planning and Design Institute, 2012. 夏阳街道

III. Evaluation on the Implementation of the Plan

(2) City-Industry Integration

There are a large areas of industrial land in the new city which offers a number of jobs, most of which however is in manufacturing, not fitting into the development strategy of the city. Moreover, the top-notch talents needed to be introduced to the new city can not find right jobs locally, and the conflicts because of a separation of home and work need to be addressed.

Industrial structure should be further improved to optimize the population structure.

Plan on Land Utilization in Central Area of Jiading



图例

绿色用地	防护绿地	水域
公共设施用地	市政设施用地	规划范围
商住综合用地	对外交通用地	
研发产业综合用地	道路广场用地	
公共绿地	生态结构用地及农用地	

Source: Revised General Planning for Downtown Area of Jiading New City (2012-2020) published by Shanghai Urban Planning and Design Institute



III. Evaluation on the Implementation of the Plan

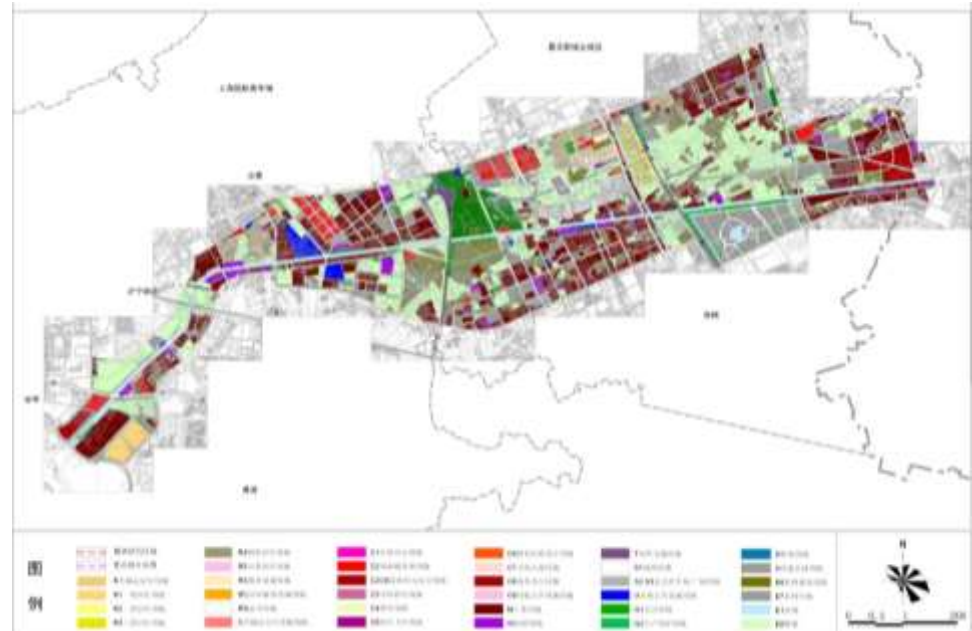
(3) function upgrading of waterside areas

Known as Qilian city in the history, Jiading was named after the Qilian River within its territory. There are Lianqi, Qiqian, Hengli and Yunzao rivers flowing through the district, but along the banks are industrial and warehousing areas with poor transport accessibility. Therefore, we need to draw western experience in the development and renewal of waterways and the surrounding areas to improve the functions and environment of stem rivers

Source: Survey on Land Use along Yunzao River published by Shanghai Urban Planning and Design Institute



Land Use along Yunzao River



III. Evaluation on the Implementation of the Plan

(4) Transportation

There is excessive reliance on the Shanghai-Jiading expressway for the commutes in between, with poor accessibility and capacity of public transport. A transport network to the central city has not built yet.

There are too many metro stations along the Line 11 with close distance to each other, leading to traffic congestions of the expressway due to the over-capacity situation .

Therefore, the new city needs to improve the links both with the central city by facilitating the accessibility of rapid transit and rail transport, and with other areas and cities like Qingpu district, Songjiang district, Kunshan and Taicang in the region, meanwhile to optimize the internal transportation within the new city area.



Source: Evaluation on New City Construction Planning published by Shanghai Urban Planning and Design Institute



Thank you !