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New Urbanization Development of Feixi County in Hefei City

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Abstract Based on the current land use in Feixi County, this paper analyzed the problems in the process of promoting new urbanization in Feixi County. It pointed out that the new urbanization is the urbanization taking the livelihood, sustainable development and quality as connotation, taking the pursuit of equality, happiness, transformation, green, health, and intensive use as core objectives, taking realizing regional integration and coordination, industrial upgrade and low carbon transformation, ecological civilization, intensive and high efficiency, institutional reform and innovation as main contents. Combined with the characteristics and shortcomings, it came up with pertinent recommendations for new urbanization of Feixi County.

Key words Feixi County, New urbanization, Development

1 Overview of Feixi County

1.1 Geographical location Feixi County is situated in southwest of Hefei City, Changjiang-Huaihe River Valley, and close to west bank of Chaohu Lake. In the east, it neighbors on Baohe District of Hefei City, it faces Feidong County and Chaohu City across Chaohu Lake; in the west, it borders on Lu'an City; in the south, it is adjacent to Fengle River, Shucheng County, and Lujiang County; in the north, it is close to Shou County and Changfeng County. Feixi County is wide in the west and east in the east, 55 km long from the south to the north, and 64 km wide from the east to the west. The total land area of Feixi County is 2082 km², including 1583 km² in the Yangtze River valley, 585 km² in Huaihe River valley, and 100 km² in Chaohu Lake.

1.2 Natural and economic conditions Situated in the subtropical monsoon climate zone, Feixi has distinctive monsoon climate, clear distinction of four seasons, temperate in climate, rainy season and hot season come in the same time, the sunshine is abundant, the average annual sunshine hours are 2036, frost-free period 240 days, average annual temperature of 15.4 °C, the days with average daily temperature higher than 10 °C are 229 days, the accumulated temperature is 4972 °C, suitable for growth of many kinds of crops and trees. The average annual wind speed is 2.5 m/s, and the maximum wind speed is 22 m/s. Both the sunshine and heat conditions are excellent, the average annual solar radiation is up to 115.0 kcal/cm², the solar radiation is the highest in July and lowest in January. The annual temperature changes are relatively stable. The highest is 16.6 °C, and the lowest is 14.8 °C. In July, the average temperature reaches 27.9 °C. In January, the average temperature reaches 2.1 °C. In the past, the extreme maximum temperature reached 40.6 °C, and the minimum was -15.7 °C, with a difference of 56.3 °C. The temperature difference is largest in April and October and November, 9.1 °C and

9.6 °C, respectively. It is hot in summer and temperate in winter. Feixi County is one of top 100 counties in China, one of top ten counties in central China, and a strong country in Anhui Province (Table 1). The farmland area in Feixi County is about 900000 mu. Feixi County includes Taohua Town, Fengle Town, Sanhe Town, Guanting Town, Mingchuan Township, Taohua Industrial Park and Boyan Sci-Tech Park management committees, and has the total population of 889000. Feixi County has a long history. In Shang and Zhou period, it was called "Huaiyi". In the Warring States Period, Feixi belonged to Chuthe Warring States period is Chu; in the Western Han Dynasty, it was under the jurisdiction of Jiujiang County; in December 1948, Feixi County was formally established. Feixi County is one of the birthplaces of rural household contract responsibility system, and also an important commodity grain production base in China, the largest famous poultry production and nursery stock cultivation county in Anhui Province. In 2010, the Economic Development Committee of Chinese Small and Medium Cities issued the *Green Paper for Small and Medium Cities*, and Feixi County was listed into "Top 100 Small and Medium Counties with the Highest Investment Potential". On December 20, 2011, Feixi County obtained the title of "Civilized County of Anhui Province", "Garden County of Anhui Province", "County with Beautiful Environment in Anhui Province", and "Model County of Greening Project", successfully realized a triple jump, obtained the title of National Civilized County, it is the only county obtaining such title in Hefei City.

2 Problems in the construction of new urbanization of Feixi County

2.1 Instable economic growth From the perspective of the whole country and Anhui Province, China's GDP in 2015 was about 67670 billion yuan, the GDP of Anhui Province was 2200.56 billion yuan, and GDP of Feixi County was 55.18 billion yuan. Compared with Feidong County, Changfeng County, and Lujiang County, the GDP of Feixi County remained in a leading position (Fig. 1). However, compared with the GDP in 2010–2014, the

growth rate was declining in 2015 (Fig. 2).

Table 1 Top 15 counties (cities) of GDP in Anhui Province in 2015

Ranking	County (City)	GDP//10 ⁸ yuan
1	Feixi County	551.8
2	Feidong County	481.7
3	Changfeng County	361.0
4	Wuwei County	355.6
5	Tianchang City	291.3
6	Chaohu City	273.1
7	Dangtu County	271.2
8	Huaiyuan County	239.2
9	Ningguo City	234.1
10	Suixi County	233.2
11	Tongcheng City	227.1
12	Fanchang County	226.1
13	Guoyang County	223.7
14	Huoqiu County	223.5
15	Lujiang County	221.1

2.2 Unreasonable structure of total output value (i) The total output value of the primary industry increased by 0.24 times from 3.924 billion yuan in 2010 to 4.858 billion yuan in 2014; the total output value of the secondary industry increased by 0.98 times from 17.363 billion yuan in 2010 to 34.441 billion yuan in

Table 2 Total output value of Feixi County in 2010 –2014

Year	Total output value	Primary industry	Secondary industry	Tertiary industry
2010	274.82	39.24	173.63	61.95
2011	344.37	46.16	225.77	72.45
2012	416.69	50.59	271.59	94.51
2013	462.68	54.96	301.53	106.19
2014	508.80	48.58	344.41	115.81

(ii) In 2010, the total output value of the secondary industry accounted for 0.63 of the total output value of the whole Feixi County, and the total output value of the tertiary industry accounted for 0.23 of the total output value of the whole Feixi County; in 2012, the total output value of the secondary industry accounted for 0.65 of the total output value of the whole Feixi County, and the total output value of the tertiary industry accounted for 0.23 of the total output value of the whole Feixi County; in 2013, the total output value of the secondary industry accounted for 0.65 of the total output value of the whole Feixi County, and the total output value of the tertiary industry accounted for 0.23 of the total output value of the whole Feixi County; in 2014, the total output value of the secondary industry accounted for 0.68 of the total output value of the whole Feixi County, and the total output value of the tertiary industry accounted for 0.23 of the total output value of the whole Feixi County, as shown in Fig. 3. Although the total output value of the secondary industry and tertiary industry in 2014 had increase compared with that in 2010, there was basically no change in the proportion to the total output value of whole Feixi County, indicating that the overall industrial structure had no change.

2014; the total output value of the tertiary industry increased by 0.88 times from 6.195 billion yuan in 2010 to 11.581 billion yuan in 2014, as listed in Table 2.

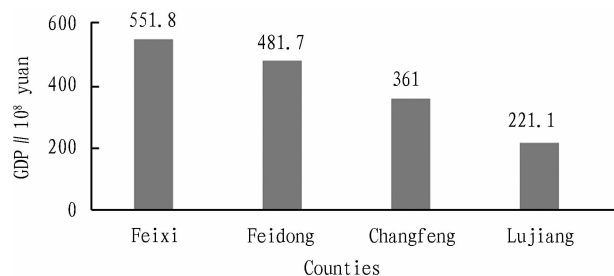


Fig. 1 Block diagram for GDP of Feixi, Feidong, Changfeng, and Lujiang counties in 2015

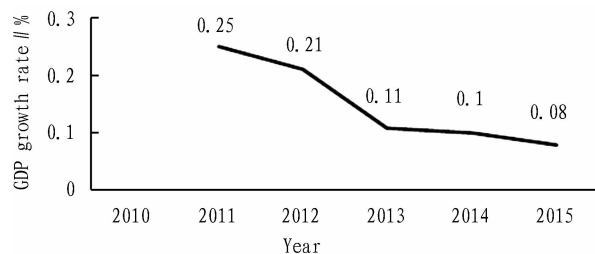


Fig. 2 GDP growth rate of Feixi County in 2010 –2015

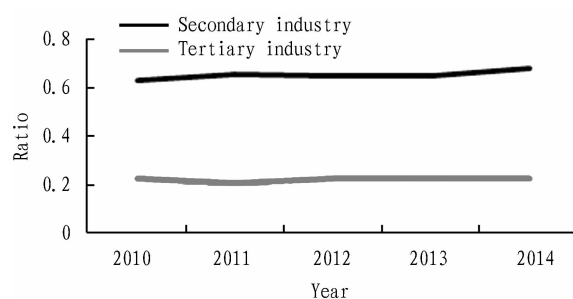


Fig. 3 Ratio of the total output value of secondary and tertiary industries to that of the whole Feixi County

2.3 Not harmonious development between counties and cities

Through sampling, we surveyed the population of 9 towns in Feixi County. In the spatial distribution and scale structure of towns, 3 towns (Shangpai Town, Huangang Town, and Lucheng Town) had population larger than 100000; 3 towns (Guanting Town, Shannan Town, and Taohua Town) had population of 60000 – 90000; 3 towns (Zipeng Town, Sanhe Town, and Fengle Town) had population below 60000, as listed in Table 3. Generally, to realize excellent cluster function, towns should have population larger than 60000. In these 9 towns we surveyed, there were still three towns

with population less than 60000, the effect of scale economy could not be brought into play, and it failed to drive the development of surrounding towns. Besides, the relationship of labor division and cooperation between towns was not clear.

Table 3 Basic situations of 9 towns surveyed in Feixi County in 2014

Population of the town	Number of town	Name of town
More than 100000	3	Shangpai, Huagang, Lucheng
60000 – 90000	3	Guanting, Shannan, Taohua
Less than 60000	3	Sanhe, Zipeng, Fengle

Note: Data were selected from *Feixi Statistical Yearbook* 2014.

2.4 Unreasonable distribution of functions of old towns In some old towns of Feixi County, the population density was too large, and urban functions were excessively superposed and various urban problems became prominent. In the aspect of traffic distribution, the road density network was small, the width was small, the traffic jam was serious, and evacuation ability was weak; the road management was not in place, the motor vehicles were placed in disorder, tricycles and motor vehicles did not comply with traffic rules, which increased pressure on the narrow roads; in the ecological environment, the greening rate was low and domestic rubbish was much, the exhaust emissions of cars were serious; advertising boards were put up in disorder, which seriously influenced overall beauty and tidiness, and the living environment was not effectively improved. In the transformation of the old towns, the transformation effect of comprehensive renovation of urban villages, the old residential areas and the old insecure buildings and non-complete houses was not obvious. In the aspect of functional division, the distribution of business, office, living, ecological space and traffic station was not reasonable, and the comprehensive utilization and development rate was low. Excessive flow of people led to poor sanitation and chaotic order of streets.

3 Recommendations for development of new urbanization of Feixi County

3.1 Integrating urban and rural areas and coordinating development The advancing of urbanization is influenced by economic, social and environmental factors. The present urbanization is not simply for economic benefits, but more importantly, it cares more about the urbanization quality, integrating urban and rural areas and coordinating the development. It is recommended to improve people's living conditions and put people's getting rich in the first place. Besides, it is recommended to transform traditional separation status, and establish a benign development mode, to improve the quality of life.

3.2 Protecting environment and sticking to sustainable development It is recommended to incorporate the green, environmental protection, low-carbon concept into the urbanization of Feixi, and make effort to build small livable towns. In the use of resources, within the environment carrying capacity, it is recommended to make use of resources in a scientific and effective manner, and unswervingly follow the resource-saving and environment-friendly sustainable development path. In the ecological environment, it is required to take serious control of the domestic rubbish,

construction waste, sewage discharge, noise pollution and other pollution, strengthen the water source protection, increase investment in environmental protection facilities, to establish green low-carbon city. At the same time of improving the social and environmental protection supervision mechanism, it is also required to raise the awareness of environmental protection and fundamentally change the living concept.

3.3 Combining actual situations and developing towns with local characteristics To develop a new type of urbanization, we must combine the actual local situation and develop towns with local characteristics. Feixi County should formulate plans according to the actual situations and build a new type of dynamic green livable town. It is required to resolutely abandon the great demolition and construction. Instead, we should set up scientific concept and develop towns with local characteristics in a scientific manner. Feixi County has deep cultural heritage and rich tourism resources. Therefore, Feixi County can take advantage of this, in the development process, it should care about cultivation of the historical and cultural atmosphere, and firmly stick to the spirit of innovation, lay equal stress on the development and use, and develop towns into charming and characteristic towns.

3.4 Energetically developing economic construction It is recommended to promote the development of both secondary and tertiary industries. Feixi County currently remains at the stage of accelerating industrialization. Despite having rich resources and certain foundation, the industrial structure is relatively simple, and industrial processing degree is low. Feixi County is rich in labor resources. It is recommended to develop labor-intensive and energy-intensive industries combining actual local situations. Besides, Feixi County should energetically introduce talents, technology, brand, advanced management experience, modern market mechanisms and smooth marketing channels, to promote their industrial upgrade. Also, we should seize the rapid economic development opportunity, energetically develop their own products and put their products into the market. Feixi County is rich in tourism resources. There are 5A Scenic Spot: Sanhe Ancient Town, 4A Scenic Spot: Zipengshan Mountain and Feixi Old Hen Home; 3A Scenic Spot: Feixi Xiaojing Village, Huamu City of Central China, Hilltop Herb Farm, Liumingchuan Ancient House, *etc.* These provide favorable conditions for the local tourism development. Feixi County should rely on the rich natural and historical and cultural resources, improve the tourism service facilities, promote the rapid development of tourism and related industries, make tourism become a new growth point of economic development, promote urbanization development; implement industrial cluster development, bring into play the agglomeration effect, and strengthen the present industrial development platform on the principle of economic industrialization, industrial park, the characteristic park, guide related enterprises to aggregate towards specialized and characteristic platform, bring into play the industrial cluster effect, strengthen the radiation function, and comprehensively raise the overall economic strength and competitiveness of the whole county. Production cluster can not only reduce production costs, provide a large number of jobs, and can promote agglomeration of capital, technology, talent and other factors of production, provide powerful

guarantee for new urbanization of Feixi County. The development of new urbanization will inevitably lead to the establishment of new towns and new districts. Without support of industries, people will have to go to old downtowns to work, but have to return home in new towns, the new towns are just like "sleepers' town" or dormitory town. In addition to public resources facilities not in place, new towns have the threat of being reduced to empty towns. Taking the development of the industry as the main driving force for the development of the town is the core of the integration of industry and town. It is not only favorable for the construction of the industrial parks to achieve industrial agglomeration and the effect of centralized use of land resources, but also favorable for increasing the employment rate of migrant workers, prevent the problem of "sleepers' town" or dormitory town. Feixi County should firmly grasp the opportunity of City Belt along the Yangtze River in Anhui Province undertaking the industrial transfer, vigorously develop the industrialization and new urbanization, promote urbanization through industrial development, and bring along the industrial development through urbanization, they complement each other and inseparable from each other, so it is recommended to integrate them together and realize their development together.

3.5 Using land in a reasonable way Protecting the farmland. In the process of new urbanization, it is required to resolutely protect the farmland, do not occupy farmland for urban expansion, and also required to strictly control the development intensity, always care about the dynamic balance of land development, and reasonably adjust land use structure, to avoid excessive land development. In the process of urbanization, Feixi County should keep ecological space, so that residents can not enjoy the green life in suburban areas, and also should optimize the land use structure. Land resources are limited, it is required to optimize the land structure, allocate properly industrial land and residential land, and increase the land use efficiency. At present, Feixi County has large industrial production space but small urban living and ecological space. On the one hand, there are great demolitions and construction, resulting in the continuous expansion of industrial land and the shortage of land for urban residents, and the low utilization rate of industrial land, small living space for the urban residents, small area for commercial activities, and insufficient urban green area. With the continuous development of urbanization in Feixi County, a large number of rural residents flow to towns and live and get registered in towns. This will bring great pressure to towns, which requires the industrial area to implement the park management, separate residential and industrial areas from the commercial areas, and increase the green space, and increase the population capacity of the towns. According to actual situation of Feixi County, it is reasonable to adjust the proportion of industrial, agricultural, commercial and residential areas control the excessive expansion of industrial land, increase the living area and green space of residents, promote the optimization of urban layout, and build ecological livable environment for Feixi County^[2].

3.6 Improving the social security system It is recommended to improve the minimum living security system. In many rural areas of Feixian County, young people migrate to urban areas or other provinces for working in large cities. Rural local people are poor

elderly and children left behind. Those left-behind old people and children live a hard life. For those people, government should give special attention and protection, and improve the minimum living security system for poverty-stricken people in rural areas. To find out the real difficulties of poor residents and their practical needs, it is required to issue the pertinent minimum living security policy according to the local rural situation and the social and economic level of Feixi County, to solve the actual difficulties of poor people and provide them with the basic conditions of living. Besides, it is required to respect the basic living and survival rights of citizens, improve the minimum living security system. This is the precondition and foundation for developing new urbanization, integrating urban and rural social security system, and broadening the coverage of social security system. They are mainly engaged in physical labor jobs, outdoor work, the workload is big and works are full of risks, so it is necessary to improve the work injury protection system for migrant workers. In the medical, pension, work injury insurance and children's education, migrant workers should have the equal treatment and rights as urban residents, to promote the integration of urban and rural social security system and improve rural social security of landless farmers. The construction of urbanization has led to the transformation of large area of rural agricultural land into urban construction land, so that some farmers have lost their land and lost their source of living. Furthermore, because the social security system is not perfect, some migrant workers take their rural land as the guarantee for their future return to hometown, and keep their homestead in rural areas. However, such land is a serious waste of land resources. In this situation, it is required to speed up the construction of land transfer system, so that rural idle land can realize the transfer with compensation. Also, in the transfer process, there will be laws for compliance with, accelerate rational flow of land resources and increase the land use efficiency. Finally, it is recommended to strengthen the employment guidance of rural residents, to carry out employment training activities, to encourage them to improve labor skills so as to create favorable conditions for their employment.

3.7 Broadening the financing channels to provide financial security It is recommended to strengthen the support of local government bonds, to improve the laws and regulations, and improve the local government bond management system. On this basis, it is recommended to study and explore the feasibility of issuing government bonds, innovate on financing tools to broaden the financing channels for urban construction, and bring into play the role of market mechanism. Besides, it is required to actively bring into play the role of market mechanism, establish a diversified urban construction investment and financing system with guidance of government, support of financial institutions, and participation of social circles. At the same time of the government guidance, it is required to strengthen the market function, bring into play the function of market in allocation of funds, encourage social circles to participate in investment, and actively guide the establishment of diversified financing model, and also encourage private capital investment. It is recommended to encourage private capital investment, and broaden the financing platform of local government, so

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with following recommendations. Firstly, we must always adhere to the strategy of "basing on domestic side" to ensure that national grain security. Grain is both a commodity and a very special strategic material. China's food must be firmly held in our own hands. China's food should mainly contain China's grain. In accordance with the guideline of the central government "basic self-sufficiency of grain and absolute security of grain ration", China should attach great importance to the grain security when adjusting agricultural supply and demand structure. While supporting the structural reform of the supply front for agriculture, China should still ensure the national grain security through various measures. Secondly, it is required to ensure the integrated production capacity of agriculture. Besides, China should also pay attention to continuously consolidating the foundation of modern agriculture and raising the integrated agricultural production capacity. To implement the strategy of storing grain in land and technology, it is required to continuously raise the integrated production capacity of agricultural products through pushing forward the construction of high standard farmland on a large scale, vigorously promoting the construction of farmland water conservancy and strengthening the extension system of modern agricultural science and technology innovation. With the aid of opportunity of high grain supply in both domestic and foreign market, it is workable to explore farmland crop rotation system, which is not only favorable for rehabilitation of farmland and sustainable development of agriculture, but also favorable for balancing the contradiction between food supply and demand and reducing financial pressure. However, this pilot should be based on protecting the national grain security and should not affect the income of farmers, fallow land should not reduce the farmland, conduct non-agricultural, and weaken the integrated agricultural production capacity, and should also ensure yield and supply of grain.

4.3 Strengthening market assessment and taking effective measures to resolve potential market risks and ensure sustainable management International cooperation of agricultural production capacity is faced with complex he market environment. In order to reduce the management risks, it is recommended to take the order management, agricultural futures, deep processing of agricultural products and other measures to help the supply of domestic agricultural products while maintaining the sustainability of bus-

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as to attract more private funds. Through loosening the market access and implementing the franchising, it is recommended to encourage social capital to participate, so as to solve the problem of funding source of the quasi-public welfare infrastructure construction. Then, investors are profitable, and it is able to attract more private capital.

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ness activities.

4.4 Carrying out preliminary research to accurately grasp national conditions of cooperation parties and safeguard the interests For the international trade and international cooperation, it is recommended to carry out preliminary researches about laws and regulations, religious practices and even the natural environment, to accurately grasp the basic conditions of cooperation target countries, make efforts to avoid commercial disputes and other disputes, and protect interests of every party.

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