

Research on the Countermeasures for Coordinated-Promoting New-type Urbanization and Rural Vitalization

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Abstract: The exploration of tailored urban-rural integration development is of great significance as new urbanization and rural vitalization are major strategies in China at the current stage. This project systematically studied the theoretical mechanism of both, and summarized three new-type urbanization theories; Researching the current situation of agriculture in the city, based on "comprehensive human development" and taking population and talent development as the entry point, this paper innovatively analyses the seventh population census data of the city from three perspectives; Through an intensive study of the development mechanism and the implementation path of comprehensively promoting new urbanization and rural vitalization, four countermeasures and suggestions have been proposed based on industrial reality, the local population aggregation, attracting the return of talents to their hometowns, and adapting to economic and social development. The above research results have important practical significance for the coordinated promotion of new urbanization and rural revitalization strategies in Tai'an City.

1. Research Background

In May 2022, the central government issued the "Opinions on Promoting Urbanization Construction with County Towns as Important Carriers" (hereinafter referred to as the "Opinions") and the "Implementation Plan for Rural Construction Action", specifying development goals and specific tasks of county-level urbanization and rural vitalization, and officially putting coordinated development of county-level urbanization and rural vitalization on the development agenda. The Opinion emphasizes "adhering to the people-centered promotion of new-type urbanization". Adhering to the people-centered approach is the biggest difference between new urbanization and traditional urbanization. The Sixth Plenary Session of the 19th Central Committee emphasized the people-oriented new type of urbanization. From a theoretical point of view, this study takes the people as the center to promote county-level urbanization, insisting that development is for the people, development depends on the people, and development fruits are shared by the people. Only in this way can people's happiness and sense of accomplishment be truly enhanced, residents' sense of belonging to the county be enhanced, and high-quality county-level

urbanization be truly realized [1].

The development strategy of the new-type urbanization has a profound significant in China and is an important measure that conforms to history and meets the requirements of the times. The 19th National Congress of the Communist Party of China elevated new-type urbanization to a national strategy and released the "National Plan for new-type urbanization". In 2019, the Central Committee of the Communist Party of China has clearly proposed the "Coordinated Promotion of Rural vitalization Strategy and new-type urbanization Strategy". During the "14th Five Year Plan" period, China will comprehensively promote the construction of new industrial agricultural urban-rural relations [2]. Therefore, adhering to a dual approach and coordinating the implementation strategy of the new-type urbanization and rural vitalization in the context of the new times has become a significant research fields and the main task at the current stage.

2. Current Situation of New-type Urbanization and Rural Vitalization

2.1 Dialectical Relations between New-Type Urbanization and Rural Vitalization

Modernization must rely on urbanization, which is a concrete manifestation of modernization of agriculture and rural areas, economic, social, demographic, and environmental high-quality development, and plays a big role in realizing the Great China Dream. Presently, China's urbanization and rural vitalization have entered a new stage of comprehensive transformation. Currently, the problems of unbalanced and insufficient development such as valuing cities over townships, and the decline of cities into villages are still prominent. Rural diseases such as the elderly, the weak, the sick, and the disabled, and hollowing out are still difficult to eradicate [5-7]. Rural vitalization is a complex system involving multiple factors such as people, land, and industry, and its research is not overnight. The synergy between rural vitalization and new-type urbanization is an urgent research difficulty.

Productivity determines relations of production. On the basis of the Marxist theory of the relationships between urban-rural areas, the imbalance and development of productivity between town and country areas will divide the relationship of urban-rural areas into three typical stages: town-country dependency, town-country separation, and town-country integration. This is an important reason for the strong development of town-country integration and integrated development in China [8]. The key to this theory lies in the assistance of industrialization, which has promoted the increase in the number and scale of cities. Its role is mainly expressed by the reduction of the rural population, the growing of the city population, and the acceleration of farmers' departure from their hometown to enter cities and their modernization transformation. At the same time, industrialization, as an important watershed, has rapidly developed from urban-rural dependence to town-country separation, further developing into urban-rural confrontation. When industrialization reaches an advanced stage, it begins to move towards the town-country integration stage of "urban feeding back rural areas" and "industrial feeding back agriculture".

To summarize, the relations between new-type urbanization and rural vitalization is complementary, mutually supplementary, and mutually reinforcing. Rural vitalization cannot do without new-type urbanization. The prosperity of industries in rural vitalization puts forward a prerequisite, that is, large-scale management of farmers' land to liberate farmers from the land. This requires promoting industrialization and urbanization, and ultimately achieving town-country integration. The key to new-type urbanization is "urbanization of people", and talent vitalization is also the key to the "five vitalization" in country, which is an important driving force for rural vitalization and can provide a strong guarantee for rural vitalization [9]. Rural talents are the "backbone" of the "three rural" work, the reserve force for the advancement of new-rural areas, and the inevitable choice in the goal of rural vitalization [4]. To keep people in rural areas and attract

people in agriculture requires agricultural modernization, and more importantly, the modernization of farmers. At the same time, the essence of the "three rural issues" is the "comprehensive human development" of farmers and migrant workers [5]. Therefore, it has a great research significance and value to research the rural vitalization and new-type urbanization construction through studying population and talent.

2.2 Current Situation of Rural Vitalization and New-type Urbanization in Tai'an City

The 14th Five Years Plan for the Development of Tai'an City points out that optimizing the spatial layout of land, promoting coordinated regional development, building a coordinated urban development system, accelerating promotion a people-centered, new type of urbanization, and promoting regional coordinated development. In 2021, rural vitalization in Tai'an City will take full swing. The total output value of the ten characteristic advantageous industries reached 16.44 billion yuan. Add 1 national strong agricultural industrial town, 1 provincial modern agricultural industrial park, and 14 municipal rural vitalization demonstration areas; it owns 55 geographical indication trademarks. Tai'an Rural vitalization Institute was established and confirmed as the branch of Shandong Rural vitalization Research Institute. Feicheng City has been selected as one of the first batch of agricultural modernization demonstration areas in China and a provincial demonstration county for rural vitalization.

In 2022, Tai'an City clearly proposed the main expected goals for economic and social development: per-capita disposable income in urban areas will increase by about 7%, while that of in rural areas will increase by over 7%, and 43000 new urban jobs will be created. Tai 'an City fully implements the rural revitalization strategy, speeds up the preparation of a new round of rural revitalization plans, and strives to create a Tai 'an chapter of Qilu rural revitalization model. One is to improve agricultural supply capacity, the other is to create characteristic modern industries, the third is to build livable and beautiful villages, and the fourth is to improve the level of rural governance.

Tai'an City regards the guarantee of factor resources as the source of economic development, establishes a new mechanism for factor guarantee of "overall planning at the municipal level, hierarchical responsibility, integration of departments and counties, and linkage between cities and counties", promotes the openness of factor resource indicators, standardized operation, and institutionalized management, and breaks the "ceiling board" of factors in exchange for the development of "one piece of sky".

3. Analysis of the Current Agricultural Situation in Tai'an City

3.1 Rich Industrial Basic Resources

The modern agricultural industry of Tai'an has initially formed 10 dominant industries and 6 characteristic industries, 10 municipal modern agricultural industrial parks, 20 Tai'an agricultural parks, 113 municipal farmers' cooperative demonstration cooperatives, "Feicheng Peach", "Mount Taishan South Foot Wine" and other national agricultural product geographical landmark brands, and 76 "provincial agricultural standardization bases"; 18 standardized agricultural production bases at the municipal level, and over 100 local agricultural standards at or above the municipal level; 422 key leading enterprises at the municipal level.

In many aspects such as the type of agricultural industry, the type of business entities, the mode of operation and management, the brand of agricultural products, and the agricultural standardization system, Tai'an City is rich in basic resources of agricultural industry, with huge market potential, and fully equipped to develop new modern agriculture.

3.2 Small Farmers' Operation Is Still the Norm

From the current stage, household management dominated by small farmers is the main form of agricultural management in China, and it is also a reality that China's agricultural development must face in the long term. Without the modernization of small farmers, there can be no modernization of agriculture and rural areas. At present, Tai'an City is vigorously developing large-scale operations, striving to achieve a land transfer rate of 46.6%. More than half of the land management is still scattered in the hands of traditional farmers. Obviously, in the future, traditional farmer management will still be an important component of Tai'an City's agricultural management.

Therefore, based on the analysis of the current development status of small farmers in China and the agricultural management status in Tai'an City, the future development of agriculture and rural areas in Tai'an City must take into account the development of small farmers. On the road to modernization of agriculture and rural areas, we cannot ignore the importance of modernization of small farmers.

3.3 New Business Entities Are Diverse, but Their Driving Role Is Insufficient

The new agricultural management entity is a representative of advanced agricultural productivity and a backbone force in promoting agricultural transformation and upgrading, and driving rural vitalization strategies. Currently, the main business entities in Tai'an City include: traditional farmers, large farmers, agricultural cooperatives, agricultural parks (family farms), modern agricultural industrial parks, etc. Large farmers have problems such as backward technology, insufficient cultural level, and poor risk resistance; The form of most agricultural cooperatives is too loose to condense into a fighting and cohesive entity; Family farms are based on large farmers, combining agricultural tourism and agricultural production to achieve the fusion of the first, second, and third industries, but the number is small and the degree of standardization is insufficient; Modern agricultural industrial parks still play a leading role in demonstration, lacking long-term planning for large-scale industrial driving, overall promotion of farmers' wealth and income, and coordinated and sustainable development of the industry. Enterprise operating entities still focus on providing agricultural technology services and agricultural product sales, and their ability to resist risks in the agricultural industry is not strong.

3.4 Agricultural Science and Technology Support Is Seriously Insufficient

The innovation of agricultural management and business models is a soft power with significant short-term effects. However, in order to achieve sustainable and healthy development, it is necessary to rely on agricultural technology support. Currently, new business entities have successively established systems and facilities such as intelligent greenhouses, picking and sightseeing parks, and Internet of Things management systems. However, the problem of "building without using" is prominent, making it difficult to increase productivity and guarantee the quality and safety of agricultural products, and commodities lack core competitiveness.

In essence, talent is the foundation of strengthening agriculture and an important force in accelerating agricultural technological innovation, transforming agricultural development methods, and promoting the development of modern agriculture.

4. Data Analysis of the Seventh National Population Census in Tai'an City

As an important indicator of new-type urbanization, population indicators can also be subdivided into three important indicators: urbanization rate of permanent population, natural growth rate of

population, and urban population density (person/km²). The average length of schooling of rural residents is an important indicator of rural vitalization.

4.1 Analysis on the Proportion of Urban and Rural People in Various Districts and Counties of Tai'an City

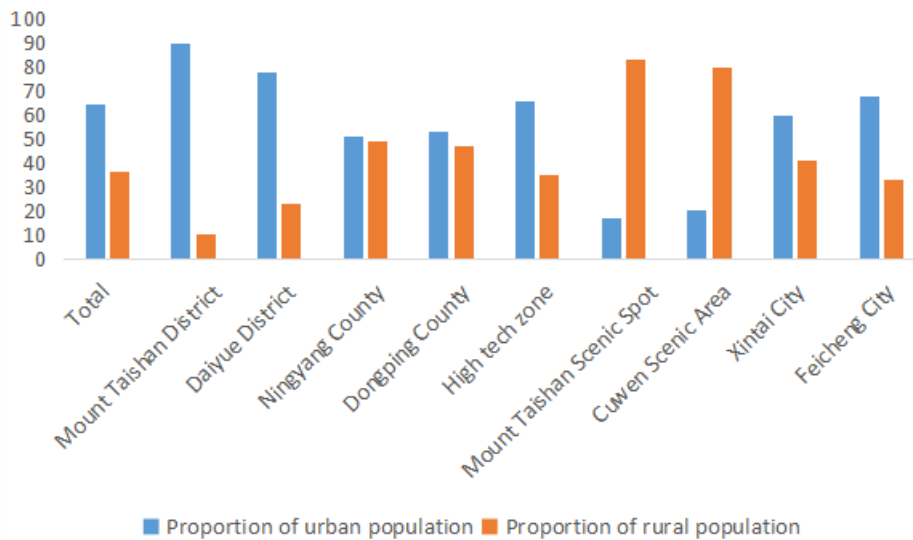


Figure 1: Proportion of Data from the Seventh Population Census of Tai'an City

According to the data in Figure 1, the proportion of urban population in 7 districts and counties, including Mount Taishan District and Daiyue District, exceeds that of rural population. The above districts and counties are all traditional administrative districts. Among them, Mount Taishan District, as the main urban area and core commercial area of Tai'an City, has the highest urbanization level; Daiyue District, Tai'an High tech Zone, Xintai City, and Feicheng City also have a large proportion of urban and rural population. As new functional divisions, Mount Taishan Scenic Area and Sorwin Scenic Area account for far more rural population than urban population, and their harmonious development planning of rural vitalization and new-type urbanization needs to be coordinated; As two outer suburban districts and counties, Ningyang and Dongping have a relatively balanced development in population proportion.

4.2 Analysis on the Education Level of the Population in Each District and County of Tai'an City

From the perspective of rural vitalization, the key to rural vitalization lies in talents, especially technical talents with higher education. Figure 2 shows the number of people with various levels of education per 100000 populations in the seventh population census of Tai'an City. Overall, the number of people receiving education in primary school and junior high school is the highest in the city, while the number of people receiving education in senior high school is higher than that in university (junior college or above). It is important to note that the number of college students in Tai'an High tech Zone, Mount Taishan District and Daiyue District exceeds the number of high school students, which indicates that these three districts and counties are more attractive to talents, and more educated talents are more willing to invest and start businesses here.

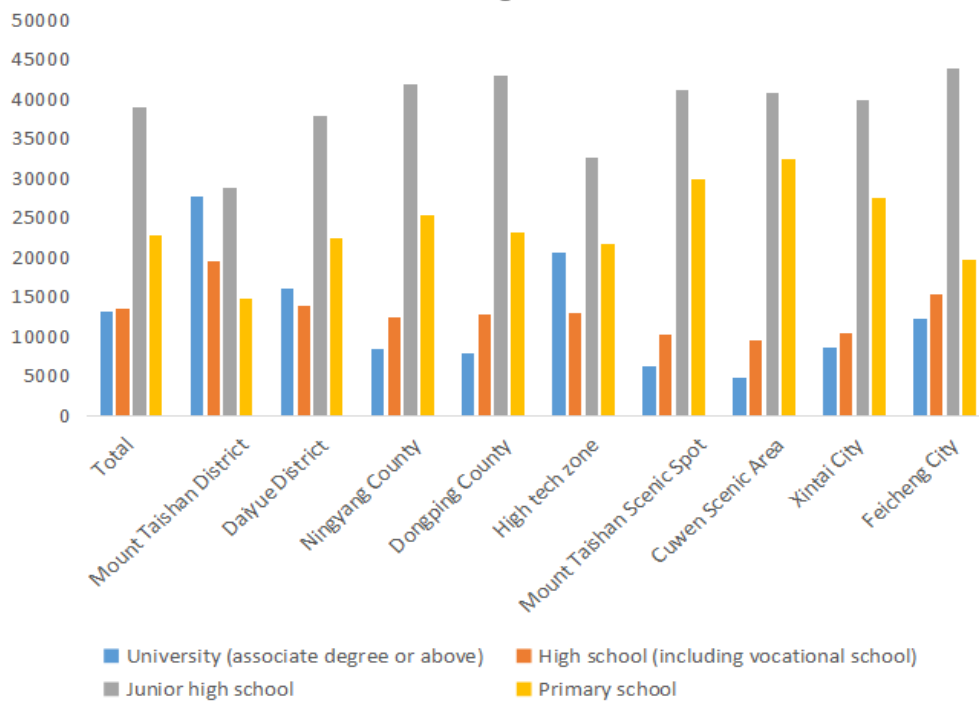


Figure 2: Number of people with various levels of education per 100000 populations (per 100000 people)

4.3 Analysis on the Age Structure of the Population in Various Districts and Counties of Tai'an City

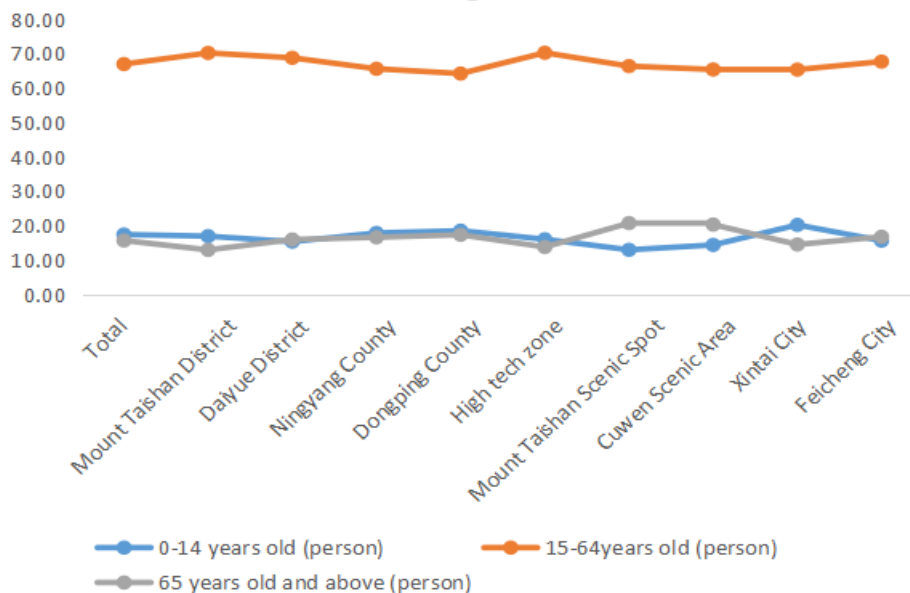


Figure 3: Age Structure of the Population of Each District and County in the Seventh Population Census of Tai'an City

As shown in Figure 3, the proportion of people aged 15-64 in Tai'an City is 67%, and the top three are Tai'an High tech Zone, Mount Taishan District and Daiyue District, accounting for 70.29%, 70.24% and 68.82% respectively. The above rankings are consistent with the educational

level rankings of the population in various districts and counties of Tai'an City, which can also be understood as being superior to the city in terms of talent vitality, innovation, and creativity. In particular, as a national level high-tech zone, Tai'an High-tech Zone has provided complete supporting support for talents in various aspects such as talent policy, housing, medical care, education, etc., attracting entrepreneurs returning to their hometown in the city to stay and start businesses.

5. The Mechanism and Path of Promoting Rural Vitalization and New-type Urbanization

According to relevant research results, it can be seen that there is a cointegration relations between rural vitalization and new-type urbanization. Under long-term equilibrium conditions, when the rural vitalization index level increases by 1%, the level of new-type urbanization will increase by 0.9414 percentage points, and the two have long-term cooperativity.

5.1 Driving Mechanism for Overall Promotion

Rural vitalization and new-type urbanization have their own inherent needs and resource advantages. How to achieve resource complementarity, mutual benefit, and mutual empowerment is the key to studying the driving mechanism of overall promotion. According to the dialectical relationship between the two, there are mainly three driving mechanisms: Relying mechanisms based on differences in urban and rural resource endowments; A feedback mechanism based on urban-rural spillover effects; A mutually beneficial mechanism based on the interactive development between urban and rural areas [3].

5.2 Cooperative Development Mechanism of the Two

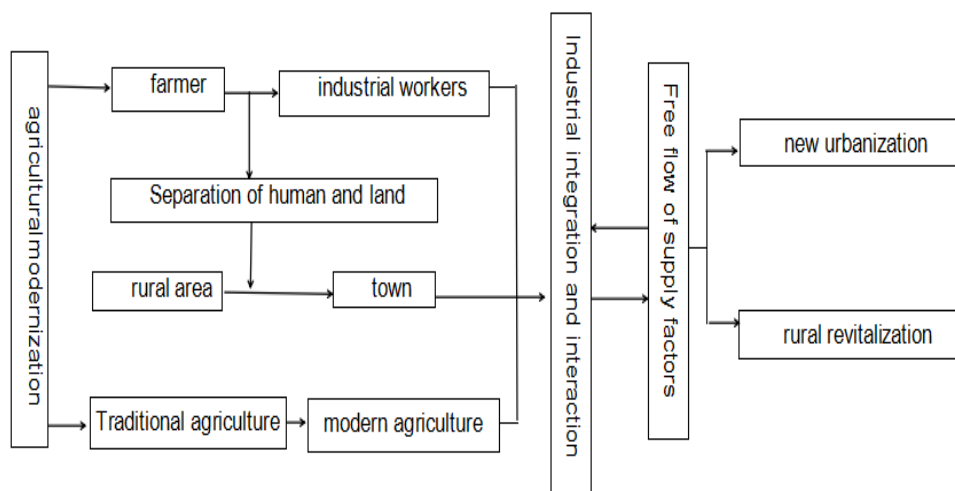


Figure 4: Cooperative Development Mechanism of Rural vitalization and new-type urbanization

As shown in Figure 4, the research of this article believes that the "three rural issues" are urban-rural integration issues with human development as the core. Through the separation of people and land, the transformation of farmers' identity has been achieved, from farmers to industrial workers. The aggregation of industries has led to the development of rural district towards cities and towns, further driving the transition of agriculture from traditional to modern agriculture. This will lead to the population migration from rural to urban area, an increase in farmers' income, and a shift in production and lifestyle. This shift has further promoted the free-flowing of essential productive factors, such as land, funds, materials, and ultimately led to the synchronous and

harmonious development of both of them.

5.3 Implementation Path of Overall Promotion

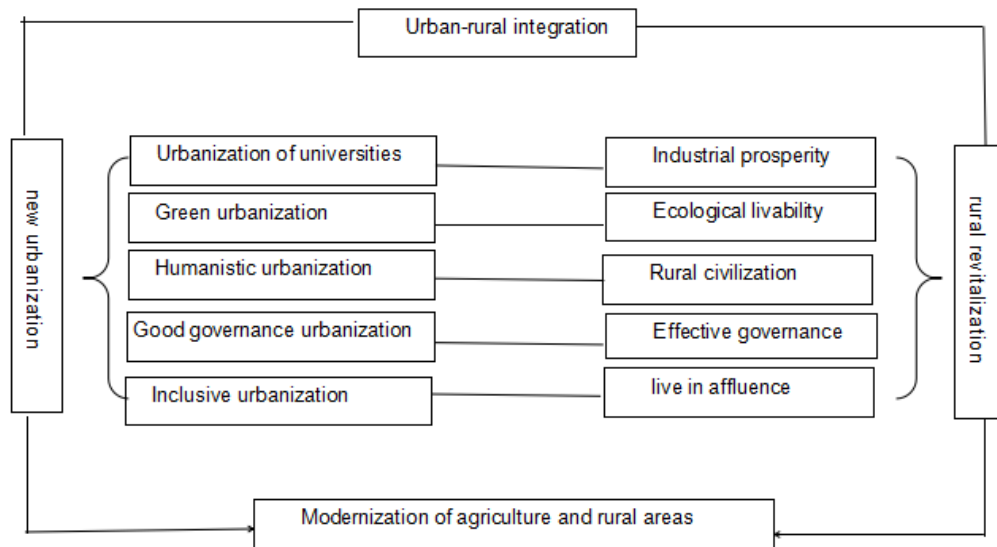


Figure 5: The path of coordinated development of new-type urbanization and rural vitalization

Figure 5 shows a relatively systematic and comprehensive path for the harmonious development of both of them. In this path, mainly from the five major aspects of economic, political, cultural, social, and ecological civilization, around the five goals of new-type urbanization: efficiency, green, humanistic, good governance, and inclusiveness, comprehensively connect the five goals of industry, ecology, rural style, governance, and life that link rural vitalization, ultimately achieving the overall promotion of both, and ultimately establishing a collaborative, efficient, safe, and innovative industrial ecological relationship.

5.4 Effect Evaluation of Overall Promotion

Theoretical research suggests that it is need to establish analytical models and indicator systems to comprehensively evaluate the effects, and coupling theory has become one of the important analytical models. The research believes that the current situation of the coordinated promotion of the two is as follows: First, due to the different driving forces of factor flows between town and country, there is a short-term one-way and long-term two-way causal relationship at the current stage; The second is that the coupling coordination degree between the two shows a dynamic characteristic of convergent growth, the relationship strength shows an increasing trend, and the coordination consistency is getting better and better; Thirdly, there are significant regional differences in the coupling and coordination between them.

6. Conclusions: Countermeasures and Suggestions for Overall Promotion of New-type Urbanization and Rural vitalization

From the perspective of population development, this article believes that the coordinated development of both in Tai’an City should be based on local conditions, prioritize, and support each other, and walk out of a distinctive and sustainable development path supported by three theories: "industry led social division of labor theory", "dual structure theory of institutional innovation", and

"sustainable development theory of systems engineering": based on the positioning of economic and industrial development in districts and counties. Tai'an City will deepen reform, promote the transfer of rural population to urban areas, and lead the revitalization and development of rural areas. Tai'an City vigorously develops industrial integration, realizes the synchronization of the four modernizations, realizes the localization of population agglomeration, and helps the new regional urbanization. Tai'an City has improved its population and talent support policies, encouraged young talents to return to their hometown, and attracted high-level talents to start businesses in rural areas. Tai'an City builds a modern agricultural industry chain ecosystem suitable for smallholder farmers, and further promotes the people-oriented and distinctive urbanization and rural revitalization strategy.

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