

# An Exploration of the Current Situation and Development of Rural Complex in Tianjin under the Rural Revitalization Strategy

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## ABSTRACT

In recent years, with the continuous promotion of reform and opening up, the state has strongly supported rural revitalization and put forward the proposal of rural complex in order to promote the process of urban-rural integration. Relying on its unique advantages, Tianjin has built a rural complex project. Based on the current situation of agricultural and rural development and modern agricultural development in Tianjin, this paper summarizes the development status of Tianjin rural complex through field investigation, and puts forward the countermeasures for the innovative development of Tianjin rural complex under the new situation and new business state.

**Keywords:** *Rural revitalization, Rural complex, Modern agriculture.*

## 1. INTRODUCTION

China is a large agricultural country with a long history, and the revival of the country's rural economy has become an important strategic measure in China's new journey to build a comprehensive socialist modernization. 2020 will see China achieve a great victory in the battle against poverty, basically completing an important step in the revival of the nation. 2021 will see China begin the great journey to basically complete socialist modernization by 2035 and focus on promoting national prosperity, national revitalization and people's happiness. On February 5, 2017, the "rural complex" was included in the No. 1 document of the Central Government as a highlight measure for the development of new rural industries [1]. The concept of "rural complex" has entered the public eye. At present, many local governments in China are actively promoting the innovative development of rural complex, effectively promoting the structural reform of the rural supply side and the comprehensive implementation of the rural revitalization strategy. Up to now, a total of 18 provinces and cities in China have conducted experimental research on the construction of rural complex, which also provides certain reference significance for other regions in China to promote urban

and rural economic development and realize rural revitalization.

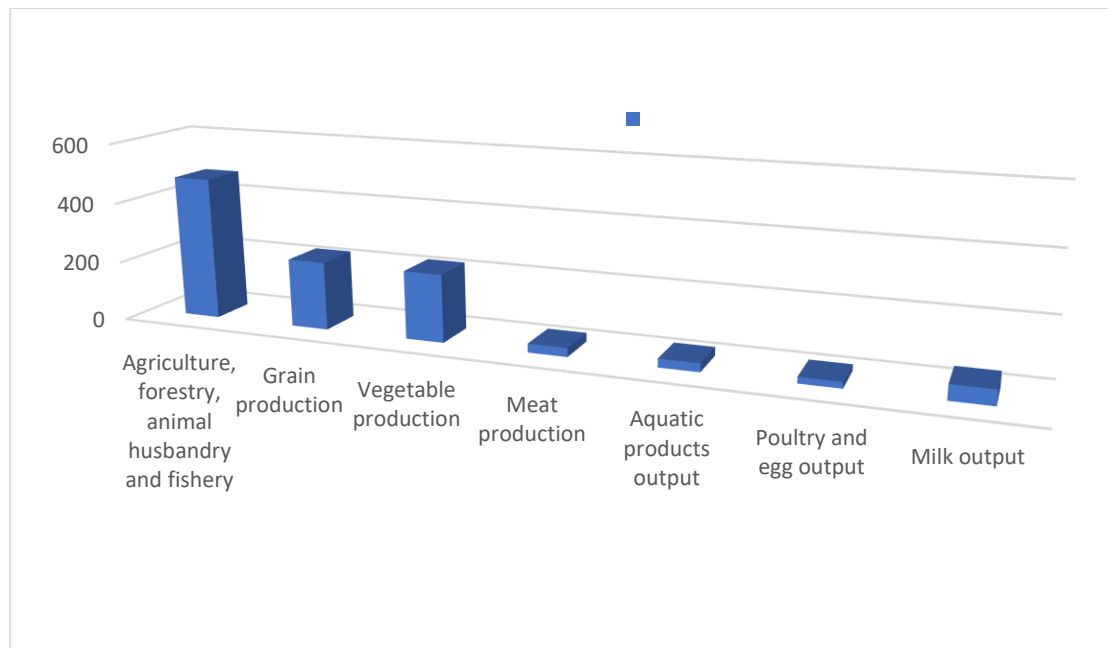
## 2. CURRENT SITUATION OF AGRICULTURAL RURAL AND MODERN AGRICULTURE DEVELOPMENT IN TIANJIN

### 2.1. Current situation of agricultural and rural development in Tianjin

At the end of 2018, the total land in Tianjin was 11,966.45 sq. km., including 6,894.41 sq. km. of agricultural land and building area, including 4,362.13 sq. km. of arable land; 4,206.51 sq. km. of integrated urban and rural construction land; and 865.53 sq. km. of unused land and building area. In 2020, Tianjin's gross domestic product (GDP) was 1408.373 billion yuan, an increase of 1.5% over the previous year at comparable prices. Among them, the added value of the primary industry was 21.018 billion yuan, down 0.6%; the added value of the secondary industry was 480.408 billion yuan, up 1.6%; and the added value of the tertiary industry was 906.947 billion yuan, up 1.4%. The change in the structure of the three industries was 1.5:34.1:64.4.

The agricultural production of Tianjin was generally stable in 2020, with the total annual output value of agriculture, forestry, animal husbandry and fisheries at 47.636 billion yuan, a growth rate of 0.9%. Grain production was also large again, with annual grain crop output reaching 2,281,800 tons, up 2.2%; vegetable production 2,664,700 tons, up 9.8%; meat production 294,600 tones; aquatic products output 284,800 tons, up 8.6%; poultry and egg output 208,300 tons, up 7.6%;

and milk output 500,700 tons, up 5.7%. According to the data from the Tianjin Statistical Bulletin, in 2020, the scale of agricultural cultivation in Tianjin will be 802,000 mu, with 254,000 mu of standardized arable land, comprehensive improvement of rural infrastructure, and the completion of 33 industrialized industrial parks on a rural scale, 80 demonstration farms for breeding and raising cycles, and 8 demonstration parks for scientific aquaculture.



**Figure 1 agricultural production income of Tianjin in 2020 (unit: 100 million yuan)**

(Source: Tianjin Government website <http://www.tj.gov.cn/>)

The income of residents in 2020 has grown steadily, and the per capita disposable income of rural residents is RMB 25,691, an increase of 3.6%. Tianjin actively promoted the construction of people's living environment, and by 2020 had achieved the reconstruction of 122,000 square meters of scattered shantytowns within the city center and 5,087 rural people in need of reconstruction of their stock of dangerous houses, and had built 150 model villages for the improvement of rural living environment. The construction project for the purification of agricultural water in the whole area was further carried out, and a new round of projects to improve the quality and efficiency of agricultural drinking water quality was completed, enabling a total of 2,061 villages and 2,022,000 rural residents to drink "safe water" and "assured water". The city also focused on reforming the land acquisition system, standardizing the procedures for collective land acquisition, strengthening post-award supervision of land acquisition for projects, strictly controlling the approval of land for construction projects, implementing a stricter arable land

management system and providing management measures for intensive land use. On the whole, the development of modern agriculture in Tianjin is gaining momentum, providing a solid foundation for the construction and development of rural complex.

## ***2.2. Current situation of modern agriculture development in Tianjin***

With the backdrop of North China, Northwest China and Northeast China, Tianjin has a vast economic hinterland and is the main channel for external exchanges for more than ten provinces and cities in the northern region of China, as well as the largest market port city in the northern region of China. It is rich in natural resources, has a strong cultural atmosphere and excellent infrastructure, which provides opportunities for the development of modern agriculture. In recent years, Tianjin has actively promoted the structural reform of the agricultural supply side, vigorously promoted the integration of one, two and three industries, and

actively promoted the vigorous development of modern agriculture into a new fast lane.

In order to promote the development of modern urban agriculture, Tianjin has conscientiously implemented the strategic planning decisions of the Party Central Committee and the General Office of the State Council, continuously promoted the

creation of national modern agricultural industrial parks in Tianjin, actively cultivated special emerging industries, established a sound chain management system for agricultural production and rural development, and driven the development of modern urban agriculture and rural areas in Tianjin through demonstration agriculture. Up to now, 4 companies have begun to take shape, as shown in Table 1.

**Table 1. Development of modern agricultural industrial parks in Tianjin**

Modern Agricultural Industrial Park	Ninghe District	Baodi District	Jizhou District	Wuqing District
Feature	Focus on the overall layout of "two centers, five districts and two belts", strive to expand production, strengthen intensive and deep processing, promote green development, and improve the industrial chain.	It is a modern agricultural park integrating "technology + production + processing+ sales", and is a leading area for modern urban agriculture with high yield and efficiency and high quality and intensification.	Improve the comprehensive agricultural production capacity, optimize the agricultural industrial structure, and speed up the deep integration of primary, secondary and tertiary industries.	Explore new collective economies, develop green and ecological agriculture, vigorously develop agricultural demonstration parks, and promote the development of large- scale, branded and standardized agriculture.

(Source: Tianjin Government website <http://www.tj.gov.cn/>)

### 3. THE CURRENT SITUATION OF THE DEVELOPMENT OF TIANJIN'S RURAL COMPLEX

Due to its late start, Tianjin does not yet have a well-developed rural complex. At this stage, according to the "Guidelines for the Creation of Rural Complex in Tianjin" jointly promulgated by the Tianjin Municipal Agriculture Commission and the Municipal Finance Bureau, a number of rural complexes integrating recycling agriculture, creative agriculture and farming experience are being actively planned. Mainly based on the existing leisure agriculture and rural tourism complex in Tianjin, they integrate modern agriculture, characteristic landscapes, folk customs, community services, ecological transformation and other industries [2]. After several years of development, the development pattern of Tianjin's rural complex has initially taken shape, with a full range of industrial models, "agriculture + industry + service industry" interpenetrating each other and integrating various

functions such as agricultural production, field life experience and leisure tourism.

#### ***3.1. Baodi District actively promotes the construction of rural complex in Bamen Town***

In accordance with the working ideas of party committee leadership, policy promotion and market promotion, Tianjin Weiyu Agricultural Development Co., Ltd. and Tianjin Rice Country Source Cultural Tourism Co., Ltd. were set up respectively, responsible for coordinating the development and operation of the rural complex project, personnel recruitment, market supervision, park management, promotion of small station rice and other tasks of management. After the establishment of the Bamen Town Rural Complex Construction Project Leading Group, two special working groups were set up under the Small Station Rice Revitalization Project and the Cultural Tourism Project to promote the construction of comprehensive agricultural industries and cultural tourism projects by means of project-based methods, creating a special

agricultural complex project with a traditional rice field style that combines a sense of viewing, participation, entertainment, fun and peaceful living. Relying on the modern agricultural industry system built in the Bamen Town, we are actively expanding the industrial chain to achieve the integrated development of the second and third industries, such as the processing of agricultural products, food processing and production, storage and distribution, agricultural entertainment experience, research and education services, and the construction of online and offline sales systems. At present, the comprehensive hall with supporting facilities of more than 2,000 square meters, which integrates dining and accommodation services, is still in the primary stage of construction; maintenance and restoration of the cultural promenade, green streetscape and other facade of more than 5,000 square meters; a large number of brands of agricultural products have been formed, such as Jinbao Di, Jinbao Huanxi, Yuan Huang, Bamencheng and Baodi Huangban Loach. A number of rice industries such as Huang Zhuangwa, Jinbao Di, Xincheng, Chaobai and Xiwang process up to 50,000 tons of rice per year, and have opened and operated the "Rice Sea Fishery Song" micro letter public number, with fans covering the Beijing-Tianjin- Hebei region, which has been well received.

### ***3.2. West Titou Town creates a square city, two districts and a rural complex***

The Tianjin Beichen District People's Government will implement the overall planning of Xititou Town, focusing on the urbanization of three administrative villages, namely Dongtitou, Xititou and Liuquaizhuang, to realize the development of a "one-sided city"; the seven villages of Luxinhe, Yaozhuangzi, Huozhuangzi, Zhaozhuangzi, Jizhuangzi, Xinhoushuang and Han Shengzhuang will focus on the development strategy of urban and rural prosperity. The cultural advantages of the original villages are preserved and rebuilt; the Lu Xinhe area integrates the advantages of film and television resources, while Yao Zhuangzi, Huo Zhuangzi and Zhao Zhuangzi villages integrate aquatic resources to carry out rural tourism development and construction. Ji Zhuangzi, Xin Houzhuang and Han Shengzhuang rely on farmland scenery, rural landscape, to create leisure, sightseeing and recreation of the rural complex.

### ***3.3. Food Group Bohai Agricultural Company Develops Rural Complex Project***

Combining the advantages of land and industrial resources of Bohai Agricultural Company of Food Group and the advantages of project development and construction of real estate companies, the Group decided to build a rural complex project in Lizigu Farm. The total

land size of the project is 2,827 mu and the investment is about 560 million.

The rural complex project is located in the south of Baodi District, Tianjin, with Baobai Road running east-west through the middle of the site from north to south and from west to east, adjacent to the Jinji Expressway in the east, north to the north-south Baobai Road and its southern extension in the west, north to the northern boundary of the Chaijiapu drainage canal, and south to the southern boundary of the east-west Baobai Road about 645 metres to the south. The project combines the overall planning and development of Baodi District's Beijing-Tianjin New Town and Baodi District's own land advantages and the industrial advantages of Jingbao Farm, and intends to use 2,827 mu of land in Li Zigu to build a rural complex while developing and constructing 780 mu of land east of the highway (in line with the two regulations), so as to achieve effective integration of agriculture, culture and tourism with housing, schools, sports, commerce and the high-speed railway, promoting each other and driving each other, to achieve the maximum economic and social benefits of the three industries.

The overall planning of the project includes nine agricultural industry projects, including Jingbao Farm, fruit and vegetable greenhouses, family farms, new strawberry greenhouses, three-dimensional planting and breeding experience area, targeted support base for poverty-stricken villages, selenium-rich rice demonstration area, water ecology image display area, tropical fish viewing base, etc., and nine rural tourism projects, including straw fish village, rice fragrant bookstore, entrance service area, green woodland, meadow, water kingdom, theme park, ecological wetland, ecological woodland, etc. 9 rural tourism projects. In 2020, the park had the sales revenue of 125 million, and in 2021, the park's total output reached 6 billion, and the annual per capita disposable income of farmers exceeded RMB 31,200,000. Two industrial chain systems of "dairy cattle and small station rice" have been formed to create a modern urban agricultural demonstration area with high yield, high efficiency, high quality and intensification.

## **4. PROBLEMS OF TIANJIN'S RURAL COMPLEX**

The development of rural complex in Tianjin is still in its infancy and a complete concept has not yet been formed, and there are not even formed rural complex to be studied, but the problems that exist in the development process still have some research value. To conduct a comprehensive consideration, the rural complex project under the Food Group Bohai Agricultural Company were selected for research, including field surveys, questionnaires and interviews,

to summarize the problems that exist in rural complex under construction in Tianjin at this stage.

#### ***4.1. Restrictions on the nature of the land***

The nature of land can be divided into three types: agricultural land, urban and rural construction land and unused land. Among them: agricultural land includes cultivation, forestry, pasture, farmland and water conservancy land, etc.; construction land includes urban housing, land for public facilities, industrial and mining land, land for transportation and water conservancy facilities, land for cultural and tourism building use, etc.; unused land refers to agricultural land outside the scope of land farmland construction, including barren mountains, barren ravines, barren hills and barren beaches, etc.

In the process of the development of the rural complex requires land for the construction of supporting facilities and projects, which will inevitably occupy land for collective rural construction and agricultural support facilities, while a large amount of land is required for the construction of catering, accommodation, parking and other service facilities. Due to the complex and time-consuming approval procedures, this will inevitably result in irregularities and illegal facts of multiple projects being built before approval, which will affect the expansion of the business of the park [2]. The Food Group had originally planned to build a town with leisure and sightseeing and shopping experience areas as one, but due to the nature of the land and the ecological red and yellow lines, it was not possible to land fixed buildings, which would have made it impossible to complete the supporting commercial, catering, conference and accommodation functions, and eventually had to adjust the program planning to reduce the development intensity of the project.

#### ***4.2. Inadequate infrastructure***

Infrastructure construction is the root of industrial integration and industrial structure transformation, while poor infrastructure severely restricts the development of modern agriculture, hinders the development of rural complex, curbs the integration process of e-commerce and Internet of Things with rural industries, and greatly increases the cost of construction and transformation of enterprises [3]. At present, agricultural infrastructure construction and public services are still a shortcoming, with rural roads, water supply, electricity supply, information technology and other infrastructure construction, as well as rural education, health, cultural development, social security and other services still existing a large gap with the city. Most of the rural complex in Tianjin is located in the periphery of the city as well as in suburban places. Because of the unbalanced

development of the regions, infrastructure and supporting service systems such as road transport, network communication, logistics and transportation are not supplied, which adds certain challenges and difficulties to the healthy and sustainable development of the rural complex.

#### ***4.3. The disappearance of the original village***

As urban and rural integration continues, some villages are being replaced by high-rise buildings gradually, and primitive villages are being pushed out in the process of urbanization. In a way, primitive villages have witnessed the rise and fall of an era and carried the memories and sentiments of a generation; at the same time, primitive villages can also become a characteristic attraction and project of the idyllic complex, attracting more people to come here and experience a different cultural atmosphere. For example, the Beautiful South in Guangxi relies on the original characteristic villages in the area and continues to develop the plantation and fruit and vegetable industries, enhancing the basic design of the whole park and minimizing changes, receiving a good response.

#### ***4.4. Insufficient financial reserves***

Rural complex involves multiple subjects and has more projects under them. The preliminary construction requires a large amount of investment, but it is not limited to infrastructure construction, depreciation of equipment at a later stage, daily operating costs, maintenance costs and costs of supporting services and facilities, which are all a considerable amount. Most of the existing sources of funding for rural complex rely on financial allocations, normal business activities and equity investment from other enterprises and individuals, but these funds are far from sufficient for the cyclical operation of the whole project and even for the expansion of the scale at a later stage. In addition, the application procedures for financial allocations are cumbersome and the waiting time is long; bank loans are difficult to obtain, and high loans are difficult to obtain; and narrow financing channels are holding back the expansion and strengthening of the rural complex.

#### ***4.5. Shortage of specialist personnel***

In recent years, as economic and social development continues and people's living standards improve, more and more young people are choosing to leave the countryside for the big cities where there are more opportunities for development, resulting in the loss of a large number of young labourers, not to mention well-educated professionals. According to the survey, most rural complex projects have a small number of existing employees, half of whom are dispatched from enterprises and formally recruited, while the other half

absorb surplus labor from nearby villages, most of whom are of low quality and not very professional. The innovative development of rural complex requires a large number of high-tech talents with management experience and a sense of service. The surplus labor force in rural areas, such as the elderly and women, cannot meet the needs of industrial development, and the lack of professional talents restricts the long-term development of rural complex.

#### **4.6. Variability in the construction of rural complex**

Rural complex is a fusion project after the landing of various rural industries. In terms of investment bodies, it mainly includes enterprises, the government and village collectives, among which enterprises are responsible for providing funds and technology, the government is responsible for providing corresponding subsidies and supporting policies, while village collectives invest in the form of leased land to obtain certain income[4]. The government is responsible for providing subsidies and supporting policies, while the village collective invests in the form of leasing the land and receives a certain amount of revenue. In the course of the project, some housing developers believe that the destruction of rural buildings can be used to build taller buildings and villas, thus making more profit from the construction activity. This phenomenon is more evident in the south of the country. In recent years, the state has been introducing policies and regulations to discourage the movement of more capital in the virtual sector, such as real estate transactions. In the long run, the construction of rural complex has been denatured, the number of rural people has been damaged, industrial integration has been unstable and the goal of rural revitalization has been difficult to achieve.

### **5. SUGGESTIONS FOR COUNTERMEASURES**

#### **5.1. Scientific planning and top-level design**

Planning issues are the primary problems that must be solved in the construction of rural complex, and new additional rural complex projects need to deal with the structural relationship between infrastructure construction and the allocation of basic elements of production materials. The development and operation of rural complex projects also need to involve practical application issues, including the specific use of funds, interest linkages, financing models, project management, management mechanisms, etc.[5]. Therefore, the implementation plan of rural complex project should be more scientific, reasonable and detailed. Government departments should set up a leading group as soon as possible, introduce policies and regulations, give policy support, improve the relevant

supporting system, scientifically plan the construction of rural complex, actively promote the opening up to the outside world, promote enterprises, products and technologies to "go out" and "come in", and cooperate with The Beijing-Tianjin-Hebei region will be developed in synergy.

#### **5.2. Multi-point power**

In the construction process of rural complex, all planning and programme design involve the "three rural areas", but for the further development of rural complex, it cannot rely solely on agriculture. Industry is the key to breaking through the bottlenecks in the development of rural complex. Based on the characteristics of highly integrated industries, the integration and development of primary, secondary and tertiary industries further enriches the complete industrial chain of agricultural production, processing, sales and marketing, and builds a new "agriculture +" composite industrial chain. During the comprehensive construction process of rural complex, e-commerce, agricultural activities and cultural creativity can be fully integrated to promote the gradual diversification, modernization, scaling and integration of rural industries, thus realizing the sustainable development of the industrial chain [6]. It should also further promote the new industrialization of the countryside, promote the development and growth of new agricultural business entities, and enhance the capacity of agricultural production and socialization services.

#### **5.3. Improving functional values**

Rural complex has been adapted to the local conditions and is endowed with unique environmental resources, featuring rural entertainment, rural landscape, leisure housing, ecological holiday and humanistic experience. The rural complex is a comprehensive fusion of industrial income generation, ecological civilization, leisure tourism, cultural display and residential life. Just providing accommodation and catering and basic leisure and play reception does not meet the diversified functional needs of industry, living, tourism and production, living and ecology [2]. The construction of rural complex can be combined with a national agricultural industrial park and leisure agriculture, drawing on the development model of characteristic towns and incorporating new concepts such as "cultural tourism" and "agricultural tourism" to create a diversified rural complex. At the same time, on the basis of the traditional business model, modern business models are integrated into the development. In this way, there are more mature traditional forms of rural complex, such as farmhouses, folk villages, civic farms and leisure farms.

#### 5.4. Increasing financial investment

Most of the existing models of rural complex in China are structured in such a way that they are "built first and then subsidized, with subsidies in lieu of awards", and are funded by central financial transfers. The government should co-ordinate the overall situation, plan rationally, and give different proportions of financial support to different levels of rural complex projects, so as to maximize the positive role of finance. At the same time, green channels should be opened for the construction of rural complex in key areas to avoid some redundant procedures. But the construction of rural complex cannot rely solely on the government. Financial subsidies from the government alone are far from enough, and financing channels should be expanded to attract large amounts of investment. The government can introduce relevant policies to reduce the cost of social investment and encourage social capital to invest, especially some leading enterprises, which can make use of their brand advantages to attract more capital. In addition, a special auditing system should be set up to regularly check the use of funds to avoid any waste of resources.

#### 5.5. Increasing land supply

The diversified functions of rural complex make it require a large amount of land. In the development of rural complex, land planning and using should be carried out in strict accordance with the requirements of national laws and regulations, and no illegal land use should meet the requirements of the three red lines: the ecological red line, the arable land red line and the construction red line. Each park should also actively explore the land management model adapted to the development of rural complex, and at the same time, after reaching an agreement with the nearby villagers, and on the basis of full respect for the villagers' wishes, clarify the land property rights relationship and carry out scientific and standardized land transfer and reciprocal contracting work.

#### 5.6. Formation of distinctive villages

Residential architecture is a carrier to show the regional landscape and humanistic sentiment, reflecting the differences and characteristics of a region. Urbanization has made it difficult to preserve many buildings. The construction of rural complex can make use of this grip to dig deeper into the cultural connotations of the area and renovate and upgrade the infrastructure and landscape of the entire park to attract more visitors. In the process of renovation, active communication with local residents is required to build a good partnership and lay a good foundation for the masses. For the long-abandoned buildings, functional and commercial renewal can be carried out by

transforming the overall internal structure of the houses, and by dividing the internal space structure again and interspersing different functional formats, thus achieving a diversity of architectural functions. Existing residential buildings can be partially renovated and decorated in order to preserve the vernacular and at the same time improve the living experience. The building can be partially renovated and the interior decorated in order to preserve the vernacular while improving the living experience [7].

#### 5.7. Delineation of target groups

As the quality of consumers continues to improve and their rational awareness grows, consumers are increasingly pursuing personalized and diversified consumption. Consumers are divided into three groups according to their age, namely the young, the middle-aged and the elderly. According to their characteristics and development trends, they are defined into three groups: the wellness community, the vitality community and the growth community. It can also be subdivided into five groups: all-age families, group enterprises, intimate partners, literary youth and youth groups [7]. Rural complex can provide different services according to different groups, including sightseeing and picking, leisure and entertainment, accommodation and catering, tourism and retirement, science education, office training, etc.

#### 5.8. Expanding market reach

If you want to make your idyllic complex bigger and stronger, you need to increase the market supply and expand its scale, and make use of the limited resources to promote it vigorously. First of all, we should rely on the advantages of the Internet to attract more groups through online publicity. The internet has changed people's lifestyles and also provided more opportunities for development. The construction of rural complex should pay attention to the characteristics of the internet, break the limitations of time and space, and improve the efficiency of services. Secondly, capture offline visitors and always maintain close relationships through online activities. Consumers are also contributors to rural complex, and some of them will take the initiative to suggest ideas and bring different thoughts and ideas to later project improvements, helping the operator to create a more innovative space experience.

### 6. CONCLUSIONS

The implementation plan of the rural revitalization strategy has laid a solid foundation for the modernization and development of China's agriculture and rural areas on all fronts, and will continue to provide strong guarantees of organization, policy and factor to enhance the endogenous momentum for

carrying out socialist modernization. New breakthroughs have been made in the integrated development of rural industries, the modernization of rural governance has been solidly promoted, and the living standards of farmers have been significantly improved. In the process of urban-rural integration, it is effectively linked with the revitalization of the countryside, promoting town-driven rural development, rational allocation of urban-rural elements, promoting the synergistic development of urban-rural industries, and accelerating the development of urban-rural integration in the region. The flourishing development of rural complex can drive the development capacity of rural areas, thus providing favourable conditions for the modernization and economic development of agriculture and rural areas, and giving a practical significance in deeply promoting the structural reform of the agricultural supply side and promoting the prosperous and flourishing development of the agricultural economy in all aspects. Although there are still many shortcomings and problems, builders should be strategic and far-sighted, look at the construction of rural complex with a development perspective, and give it tolerance and confidence. It is hoped that rural complex, as an important carrier of rural revitalization, can raise the level of rural industrial modernization, rural ecological modernization, rural governance modernization and rural life modernization, and provide inexhaustible power for China's rural revitalization strategy.

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