

# SWOT Analysis and Countermeasures Research on the Development of Rural Complex in Tianjin

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## ABSTRACT

The rural revitalization is a strategic goal for China's vigorous development, and the rural complex is one of the innovative models for realizing rural development. The rural complex development model promotes the effective integration of rural resources. This paper mainly uses the SWTO analysis method to comprehensively analyse the advantages, disadvantages, opportunities and threats of the development of Tianjin's rural complex, and specifically analyses the current situation of the development of Tianjin's rural complex. The paper aims to explore the sustainable development path of Tianjin's rural complex and propose a series of countermeasures which are suitable for the development of Tianjin's rural complexes, such as strengthening the construction of infrastructure and public services, improving the land system, enhancing the brand effect, improving the ecological system, promoting industrial adjustment and upgrading, and integrating the development of three industries.

**Keywords:** Rural complex; SWTO analysis; Sustainability.

## 1. INTRODUCTION AND LITERATURE REVIEW

Agriculture is China's primary industry and plays a fundamental role in the China's national economy. In February 2017, the new concept of "rural complex" was introduced in the Central Government's document No.1 as an innovative model to promote rural development and revitalization. In October 2017, in the report of the 19th national congress, it is proposed that the "three rural issues" are fundamental issues related to the national economy and the people's livelihood. In order to implement the Rural Revitalization Strategy, we must always take solving the "three rural issues" as the top priority of the whole Party's work. The development model of rural complexes is one of the important paths to achieve rural revitalization. The development of the rural complex is conducive to promoting the modernization of agriculture and rural areas. The development of rural complex not only introduces advanced equipment, new development ideas and excellent talents for rural areas, but also promotes the construction of infrastructure such as transportation and communication facilities. The development of the rural complex is conducive to the sustainable development of

the rural environment and culture. On the basis of protecting the rural ecological environment and the excellent rural culture, the rural complex develops local characteristic advantages according to local conditions, conforms to the development law of agriculture and rural areas, and promotes the sustainable development of rural areas.

Since the concept of rural complexes was introduced, many scholars have conducted in-depth studies on rural complexes from different perspectives. Some scholars have analysed the development status of rural complexes, with Guo Dan (2021) and others arguing that there are still many problems in the development process of rural complexes, such as the lack of in-depth integration of the three industries, the low level of active participation of farmers, the lack of qualified project investors and operators, and the lack of cultural characteristics [1]. Jia Zhengang (2019) argues that rural complexes are conducive to promoting the integration of urban and rural elements [2]. Some scholars have studied the models of rural complexes in the context of the region. Lu Guimin (2017) proposes several models for developing rural complexes, including the model of agricultural industrial park with advantageous characteristics, the model of cultural

creativity leading to the integration of three industries, the model of modern agricultural tourism park in the suburbs of the city, and the model of agricultural creativity and farming experience[3]. Some scholars have studied the significance of developing rural complexes, and Guo Dan (2021) argue that the rural complexes which integrate innovation, creativity, green recycling features and farming experience services are conducive to the construction of modern agriculture and the revitalization of the countryside; Geng and Zhang (2020) argue that the vigorous development of rural complexes is conducive to increasing rural economic income, strengthening rural infrastructure construction, creating a rural living environment and developing distinctive rural culture[4].

Scholars' research on the rural complex has begun to take shape, but it has not yet formed a system. And the direction of the research is relatively superficial. Therefore the research on the development of China's rural complex still needs to be explored in depth. The development of China's rural complexes requires new development models and innovative development paths, so as to form the rural complex which is suitable for China's national conditions. As the agricultural development of Tianjin needs to be further integrated and promoted, and the construction of Tianjin's rural complex is developing slowly, so there is a need to explore the model and path of rural complex model which are suitable for the development of Tianjin.

## **2. SWOT ANALYSIS OF THE DEVELOPMENT OF RURAL COMPLEXES IN TIANJIN**

### **2.1. Strength**

#### *2.1.1. The Beijing-Tianjin-Hebei Synergistic Development Strategy promotes the development of modern agriculture in Tianjin*

The synergistic development of Beijing, Tianjin and Hebei is conducive to promoting policy interaction in the Beijing, Tianjin and Hebei region, ultimately achieving sharing in resources and synergistic development in industries. The synergistic development of the Beijing-Tianjin-Hebei region is conducive to the Beijing-Tianjin-Hebei region making up for its disadvantages and giving full play to its advantages, finally achieving the effect that the whole is greater than the sum of its parts. The synergistic development of Beijing, Tianjin and Hebei has laid a good foundation for the development of modern agriculture in Tianjin, providing resources, talents and technology to support the development of modern agriculture in Tianjin, which vigorously promotes the sustainable development of modern agriculture in Tianjin. At the same time, the combination of agriculture and leisure tourism in the

rural complex development model enables people who are under pressure in big cities to find a good place for leisure tourism during holidays. The synergistic development of Beijing, Tianjin and Hebei brings huge passenger flow for the construction of Tianjin rural complex, and then promotes the sustainable development of Tianjin rural complex.

#### *2.1.2. Tianjin has significant talent advantages*

Tianjin which is close to the capital city of Beijing, has advantages in geographical location, and its high level of economic development makes it easy to attract talented persons from all over the country to Tianjin. At the same time, the Tianjin Municipal Government attaches great importance to the introduction of talents and proposes a competitive talent introduction policy, which has attracted a large number of outstanding talents from all walks of life to settle in Tianjin to contribute to the city's development. The influx of excellent talents in Tianjin, especially experts and technicians in agriculture settling in Tianjin, will provide an inexhaustible source of power for the modernization of Tianjin's agriculture and lay the foundation of talents for the development and construction of Tianjin's rural complex.

#### *2.1.3. There are high degree of industrialization and rapid development of agricultural industrialization in Tianjin*

Tianjin has a high degree of industrialization. With the continuous development of the times, Tianjin is constantly changing its mode of economic development, accelerating the construction of a modern industrial system, constantly realizing the adjustment of industrial structure, optimizing the industrial layout, establishing industrial advantages, and enhancing the competitiveness of Tianjin's industrial development, promoting the high-quality development of Tianjin's industries. The high-quality development of Tianjin's industries also promotes the continuous development of its agricultural industrialization, providing conditions for the development of agricultural industrialization and establishing the advantages of the development of rural complexes.

### **2.2. Weaknesses**

#### *2.2.1. There is short of agricultural construction land in Tianjin, and rural land problems emerge*

In the past two decades, with the continuous development of urbanization, arable land has been continuously occupied by construction land in Tianjin, resulting in a significant decrease in the area of arable land and a significant increase in the area of industrial construction land and other land. [5] As a large amount

of Tianjin's arable land has been taken up for construction, and the quality of the arable land has declined. The quality of the crops grown in Tianjin needs to be improved and the conditions for the development of the rural complex in Tianjin are less advantageous. At the same time, there are also a number of problems with land circulation in Tianjin. For example, most of the farmers have made oral agreements on land circulation and have not signed formal transfer contracts. Consequently there are some problems with the standardization of land circulation. As well as some farmers do not agree to land circulation and the boundaries of rural land property rights are not clear, making the integration of land resources encounter obstacles, which is not conducive to the construction and planning of the rural complex in Tianjin.

### *2.2.2. Tianjin's rural infrastructure and public services need to be improved*

The level of infrastructure and public services construction in most of China's rural areas is generally not high, and there is a large gap between the level of development of related facilities and those in the cities. The construction of infrastructure such as transportation, communication, water and electricity, landscaping and greenery in rural areas needs to be improved, and the level of public services such as education, health, culture, social security and ecological protection is low or even missing, which has hindered the development process of agricultural and rural modernization. The existing infrastructure and public services in rural areas cannot meet the needs of tourists, which is not conducive to the sustainable development of Tianjin's rural complex.

### *2.2.3. Tianjin's rural complex does not have obviously competitive advantages*

The development of rural complex in Tianjin is still at a preliminary stage, and the development model of rural complexes with regional advantages has not been completely formed. The characteristics of Tianjin's rural complex need to be further explored. The project products of Tianjin's rural complex have a low degree of differentiation, cannot meet the diversified needs of customers, and have a low attraction to tourists, resulting in weak competitiveness. At the same time, the development of rural complex in Tianjin lacks in-depth excavation of rural culture, making it difficult to form characteristic advantages and brand effects.

## **2.3. Opportunity**

### *2.3.1. Implementation of the rural revitalization strategy and policy support from the Tianjin municipal government*

The implementation of the rural revitalization strategy is an important cornerstone for accelerating the modernization of agriculture and rural areas. After the 19th National Congress put forward the rural revitalization strategy, Governments across the country have responded to the policy call and put forward a series of initiatives to promote rural revitalization, among which the development model of rural complex has emerged in response to the times. Promoting the development of agricultural and rural modernization lays the foundation for the development of the rural complex. The Tianjin Municipal Government has vigorously encouraged the promotion of agricultural and rural modernization, and put forward a series of policy guarantees for the promotion of agricultural and rural modernization, such as promoting the construction of modern agricultural industrial system, encouraging the construction of agricultural industrial parks, agricultural modernization demonstration areas and strong industrial towns, encouraging the development of innovative urban leisure agriculture and rural tourism, promoting the development of new forms of rural industry, which is conducive to the further development of the rural complex in Tianjin.

### *2.3.2. Promoting the construction of urban-rural integration*

The integrated development of urban and rural areas has always been one of Tianjin's key objectives. Tianjin constantly promotes the construction of small towns and the development of new cities, and insists on the establishment of a sound mechanism for the construction of urban and rural infrastructure and public services, so as to promote the construction of urban-rural integration. The development of urban-rural integration in Tianjin promotes the integration of various resource elements between urban and rural areas, and promotes the integration of urban and rural areas in political, economic, cultural and social aspects, which is conducive to the comprehensive, coordinated and sustainable development of urban and rural areas in Tianjin. The integration of urban and rural development in Tianjin provides the prerequisites for the development of rural complex in Tianjin.

### *2.3.3. Changes in people's philosophy of life*

As China's economy continues to develop and people's living standards continue to rise, people's philosophy of life has also changed dramatically. Modern people are more advocates of a green and

healthy life, they pay more attention to the quality of life, physical health, low-carbon environmental protection and green coordination. Modern people's life is more stressful and they need more relaxed places to rest and entertain themselves. And the rural complex can meet people's beautiful demands for their current life, so that they can get physical and mental pleasure and satisfaction in their leisure time.

**2.4. Threats**

**2.4.1. Insufficient ecological carrying capacity of Tianjin**

With the continuous development of Tianjin's economy, the city's ecological and environmental problems have continued to emerge. Environmental pollution and damage to the ecological environment have challenged the sustainable development of the city of Tianjin. The construction of sewage treatment systems in the suburbs of Tianjin is problematic, and water pollution is a prominent problem, which has seriously damaged the ecological environment of the suburbs. In the early years of Tianjin's economic development, people neglected the protection of the environment for the sake of economic development, resulting in serious environmental pollution such as atmospheric pollution, which affected the living environment of Tianjin people. Ultimately, it was not conducive to the development of a series of projects based on the ecological environment, such as the rural complex.

**2.4.2. There are difficulties in industrial integration and adjustment in Tianjin**

The level of development of the integration of the three industries in Tianjin is relatively low. The processing of agricultural products in Tianjin is still at a primary stage. The industrial chain needs to be extended, and the integration of one, two and three industries needs to be further strengthened. The industrial structure of Tianjin needs to be adjusted and the industrial upgrading is lagging behind. The industrial structure of Tianjin is unbalanced. Tianjin's secondary industry used to be the pillar industry of Tianjin and the secondary industry was highly developed. Due to objective conditions such as environment, resources, government policies and other restrictions as well as historical reasons, the development of Tianjin's primary industry has been hindered and the development of Tianjin's primary industry is in a inferior position. At the same time, the proportion of secondary industries is large, while the proportion of primary and tertiary industries is small, and the development between various sectors of industries is not coordinated. It is difficult to shift the focus of the industrial structure from the secondary industry to the tertiary industry. Although the proportion of the tertiary industry is gradually increasing, the total amount of tertiary industry is still low, and the primary industry is also developing slowly, which is not conducive to the sustainable development of Tianjin's economy and the development of Tianjin's rural complex.

**2.5. Development Strategy**

**Table 1. SWOT analysis matrix**

	<p><b>Strengths(S):</b></p> <p>The coordinated development strategy of Beijing, Tianjin and Hebei promotes the development of modern agriculture in Tianjin; Tianjin has obvious talent advantages; Tianjin has a high degree of industrialization and rapid development of agricultural industrialization.</p>	<p><b>Disadvantage(W):</b></p> <p>Tianjin is short of land for agricultural construction, and the problem of rural land appears; Rural infrastructure and public services in Tianjin need to be improved; The competitive advantage of Tianjin rural complex is not obvious.</p>
<p><b>Opportunity(O)</b></p> <p>The implementation of Rural Revitalization Strategy and the policy support of Tianjin municipal government; Promote the construction of urban-rural integration; The change of people's concept of life.</p>	<p><b>S-O Strategy</b></p> <p>Fully combine the internal advantages and advantages of Tianjin's rural complex development with the favorable conditions for the external development of rural complex, and seize the opportunity.</p>	<p><b>W-O Strategy</b></p> <p>Strive to improve the internal disadvantages of the development of rural complex, establish and improve the land system, promote industrial transformation and upgrading, improve rural infrastructure and public services, and grasp the external</p>

		opportunities for the development of rural complex.
Table 1. cont		
<b>Threat(T)</b>	<b>S-T Strategy</b>	<b>W-T Strategy</b>
Tianjin's ecological environment carrying capacity is insufficient; The adjustment and upgrading of industrial structure in Tianjin is difficult, the industrial development is unbalanced, and the development level of industrial integration needs to be improved.	Taking advantage of the inherent advantages of the development of rural complex, while avoiding the threat of the development of rural complex in Tianjin. Further develop modern agriculture, adjust the industrial structure, promote the upgrading of industrial structure and develop green and low-carbon industries.	We should overcome weaknesses, constantly make up for weaknesses, avoid threats, integrate rural resources, make overall planning for the construction of pastoral complexes, and pay attention to the construction and protection of ecological environment while developing economy.

### 2.5.1. S-O Strategy

Tianjin should fully combine Tianjin's inherent advantages in developing rural complex with the favourable conditions for the external development of rural complex, seize the opportunity of the rural revitalization strategy makes full use of the government's policy support, integrate the advantages of Tianjin's rural resources, such as talents, capital and industrial development, respond to the development concept of contemporary people aspiring to a healthy and green lifestyle, give full play to Tianjin's unique geographical advantages to attract people from the surrounding areas of Beijing, Tianjin and Hebei to come and spend money on tourism, and build a rural complex model with Tianjin's characteristics in accordance with local conditions.

### 2.5.2. W-O Strategy

Efforts were made to improve the internal disadvantages of making up for the rural complex and to seize opportunities. Tianjin should establish a sound land system, improve the land property rights system, promote industrial transformation and upgrading and the integrated development of the three industries. Besides, Tianjin are supposed to improve rural roads, water supply, power supply, communications and other infrastructure and public services such as education, health, culture and social security to promote high-quality agricultural development and improve competitiveness to provide good conditions for the modernization and development of rural areas. At the same time, Tianjin should grasp the external opportunities for the development of rural complexes and make full use of the government's policy support, the policy of urban-rural integration construction and people's pursuit of a healthy and green life to build rural complex with Tianjin characteristics.

### 2.5.3. S-T Strategy

Tianjin should take advantage of the inherent advantages of developing a rural complex while circumventing the threats to the development of a rural complex. Tianjin should take advantage of the Beijing-Tianjin-Hebei integration strategy to develop modern agriculture in depth. At the same time, the city is taking advantage of its resources to promote the modernization of agriculture and rural areas, and adjust its industrial structure to promote in-depth industrial upgrading. Tianjin should develop green, low-carbon and clean industries, actively implement national policies related to green protection, raise awareness of ecological protection, increase efforts to protect the ecological environment, promote sustainable economic development to lay the environmental foundation for the development of the rural complex.

### 2.5.4. W-T Strategy

Tianjin must overcome its weaknesses, constantly make up for its disadvantages and shortcomings, and strive to avoid threats. In addition, Tianjin are supposed to continuously integrate the rural resources of Tianjin, co-ordinate the planning of the construction of the rural complex, and focus on the construction and protection of the ecological environment while developing the economy. Tianjin also should increase the adjustment of industrial structure, reduce the proportion of secondary industries, gradually increase the proportion of primary and tertiary industries, and eventually promote the mutual integration between the three industries. At the same time, Tianjin will continue to improve the environmental foundation related to the development of the rural complex in rural areas, and dig deeper into

rural culture to create a rural complex model with core competitiveness.

To sum up, the development of Tianjin's rural complex should give full play to its internal advantages, make up for its internal disadvantages, seize external opportunities and avoid external risks, so as to provide good internal and external conditions for the construction of the rural complex. Tianjin should seize the development opportunities of the Beijing-Tianjin-Hebei Synergistic Development Strategy, the Rural Revitalization Strategy, the Urban-Rural Integration Strategy and relevant government policies and combine the advantages of developing the rural complex in Tianjin to make efforts to make up for the disadvantages and continuously avoid addressing the unfavourable conditions brought about by external threats.

### **3. COUNTERMEASURES FOR THE DEVELOPMENT OF TIANJIN'S RURAL COMPLEX**

#### ***3.1. Adhere to agrarian orientation, strengthen infrastructure and public services and improve the public service system***

In order to realize the modernization of agriculture and rural areas as well as the revitalization of the countryside, it is first necessary to improve the infrastructure of rural road transport, communication, water supply, electricity supply, landscaping and other public services such as education, health, culture, social security and ecological protection, to create a perfect public service system and provide the basic guarantee for the construction of the rural complex. At the same time, in the process of promoting the modernization of agriculture and rural areas and strengthening the construction of infrastructure and public services, Tianjin should adhere to the principle of putting agriculture first, do not destroy the ecological environment of the countryside and take up rural farmland, and protect the rural architecture, culture and environment.

#### ***3.2. Innovate the rural land system and improve the land property rights system***

Tianjin should deepen rural land reform, protect arable land in rural areas and implement special protection for arable land. It is also necessary to optimize the allocation of land resources, encourage the implementation of the land circulation system, and promote the reform of the rural land property rights system to integrate rural land resources. Concentrated large-scale cultivation should be achieved through land circulation, shareholding cooperation, substitute farming

and land trusteeship to provide a land base for the construction of rural complex.

#### ***3.3. Based on the advantages of regional characteristics, enhance the brand effect***

Tianjin should make use of its advantages in science and technology, talents and capital, as well as resources such as the sea, wetlands and rural characteristics and culture, and create high-quality and efficient economic crops such as small-station rice, fresh corn and other fruits and vegetables to develop Tianjin's rural complex. At the same time, developing leisure agriculture and rural tourism with cultural creativity and agricultural creativity as the core competitiveness according to local conditions, relying on crop planting and picking experiences, leisure and ecological tourism. Build brands, create special brands and enhance the brand effect of Tianjin's rural complexes.

#### ***3.4. Strengthen the protection of the ecological environment and improve the ecological system***

It is necessary to establish the concept of green development and focus on the protection of the ecological environment of the countryside while developing. Tianjin should hold the ecological red line firmly, strengthen the prevention and control of environmental pollution and develop the green recycling agriculture. Manure and waste generated by livestock and poultry should be treated and transformed into secondary resources to be used as organic fertilizer for crops, and crop straws and roots should also be treated organically for reuse. Meanwhile, promoting clean production technologies should be increased as a way to reduce damage to the rural ecological environment. At the same time, a rural pollution supervision system should be established to encourage people to supervise and report acts that damage the ecological environment and cause environmental pollution, so as to provide a good environmental foundation for the construction of rural complex.

#### ***3.5. Promote industrial adjustment and upgrading, promote the integrated development of the three industries and improve the industrial system***

Tianjin should deepen industrial reform, vigorously develop the primary and tertiary industries to make them better and stronger, develop the secondary industry with high quality. Tianjin also should promote the sustainable development of the primary and tertiary industries driven by the secondary industry, and vigorously promote the integrated development of the primary, secondary and tertiary industries. At the same time, the whole industry chain should be built and extended, the integrated development of production, supply and

marketing should be created. And the modes of "agriculture + tourism", "agriculture + manufacturing" and "agriculture + internet" should be implemented in rural development, so as to expand the functions of agriculture and promote the high-quality and sustainable development of the rural complex.

#### 4. CONCLUSIONS

Tianjin's rural complex is in the initial development period, there are certain advantages: the Beijing-Tianjin-Hebei cooperative development strategy promotes the development of modern agriculture in Tianjin; Tianjin has obvious advantages in human resources; Tianjin has a high degree of industrialization and rapid development of agricultural industrialization. There are also disadvantages: there is a shortage of land for agricultural construction in Tianjin and rural land problems have emerged; rural infrastructure and public services in Tianjin need to be improved; and the competitive advantages of Tianjin's rural complex are not obvious. Opportunities: the implementation of the rural revitalization strategy and policy support from the Tianjin municipal government; the promotion of urban-rural integration; and changes in people's living concepts. It also encounters challenges: Tianjin's ecological environment has insufficient carrying capacity; it is difficult to adjust and upgrade the industrial structure in Tianjin, the industrial development is unbalanced, and the level of industrial integration development needs to be improved. Therefore, Tianjin should adhere to the development of the rural complex, strengthen the construction of infrastructure and public service systems; innovate the rural land system and improve the land property rights system; enhance the brand effect based on the advantages of regional characteristics; strengthen the protection of the ecological environment and improve the ecological system; promote the adjustment and upgrading of industries, promote the integrated development of the three industries and improve the industrial system. Tianjin should give full play to its internal advantages, make up for its internal disadvantages, seize external opportunities and avoid external risks, and continue to explore a development path and model of the rural complex suitable for Tianjin.

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