

# Analysis on the mechanism, problems and Countermeasures of rural industry integration in China

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**Abstract.** Since the first document of the Central Committee in 2015 first proposed the integrated development of rural primary, secondary and tertiary industries, relevant departments of the State Council and local governments at all levels have introduced supportive policies, and the integrated development of rural primary, secondary and tertiary industries has thus entered a rapid development track. This article will clarify the related theories of the integrated development of rural primary, secondary and tertiary industries, analyze the main problems existing in the integrated development of rural industries, and put forward corresponding countermeasures and suggestions for the problems.

## 1 Introduction

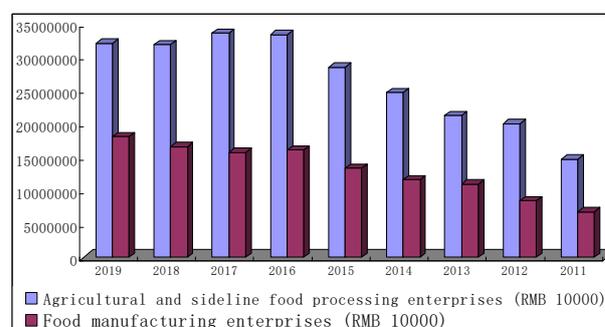
In order to make the development of rural industry get qualitative change on the basis of quantitative change, China clearly puts forward the general requirements of building a new countryside with "prosperous industry, livable ecology, civilized rural style, effective governance and rich life". In these 20 words of general requirements, "prosperous industry" ranks first, which is the focus of rural revitalization, which fully reflects China's current attention to the development of rural industry. As a weak link of economic development, agriculture has always been difficult to make a major breakthrough in development. According to the current situation of the development of Rural three industries integration, this paper analyzes three modes, basis, trend and existing problems of the development of three industries integration, and puts forward corresponding countermeasures in combination with foreign experience and existing problems in the development of industrial integration, so as to make up for the shortcomings of rural industrial development, extend the agricultural industrial chain, and promote the realization of the goal of "industrial prosperity" in rural areas.

## 2 The status quo of integrated development of primary, secondary and tertiary industries in rural areas

### 2.1 The rapid development of agricultural products processing industry

The processing of agricultural products is the earliest form of industrial integration development. In recent years, it has entered the fast lane of development. The transformation and upgrading of agricultural products

processing enterprises has accelerated, and the quality and efficiency of agricultural products processing enterprises have improved significantly. As of the end of 2019, there were 81,000 agricultural products processing enterprises above designated size in the country, absorbing more than 30 million farmers in nearby employment, and radiating more than 100 million small farmers.



**Fig. 1** New product sales revenue of China's agricultural and sideline food processing enterprises and food manufacturing enterprises from 2011 to 2019

The main business income exceeded 22 trillion yuan, and the agricultural product processing industry above designated size achieved total profits. 965.92 billion yuan, an increase of 1.5% year-on-year, the growth rate was 4.8 percentage points higher than that of the above-scale industries, and the industry's profit level was relatively high. In 2019, the operating income profit rate of the agricultural product processing industry above designated size was 6.6%, which was 0.7 percentage points higher than that of the industry. In 2019, the industry's cost per hundred yuan of operating income was 79.8 yuan, a decrease of 0.4 yuan from 2018, and it was 4.3 yuan lower than the average industrial cost, and

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the cost reduction effect was significant. From a structural point of view, the edible agricultural product processing industry completed operating income of 9692.97 billion yuan, a year-on-year increase of 4.4%; the non-edible agricultural product processing industry completed operating income of 499.757 billion yuan, a year-on-year decrease of 2.1%.

## 2.2 Diversified development of leisure agriculture

As of the end of 2017, the number of well-known farmhouses in Zhejiang Province has reached 1,194, ranking first in the country; Shandong Province has 790 well-known farmhouses, ranking second in the country; the number of well-known farmhouses in Anhui, Heilongjiang, and Hunan is relatively close. Between 560-600. With the increase in the number of farmhouses and farm ranches in various provinces and cities, operating income has also continued to increase. In 2019, the operating income of leisure agriculture and rural tourism exceeded 850 billion yuan, with an average annual growth rate of 9.8%, directly driving the employment and income of 12 million rural laborers, and becoming an important form of realization for expanding agricultural functions and enhancing rural value. There have been many types of recreational agriculture with distinctive characteristics. Generally speaking, they are mainly divided into 6 categories and 23 specific modes. In order to ensure the rapid development of leisure agriculture, local governments and enterprises are increasingly paying attention to the brand building of their own leisure agriculture to highlight their own uniqueness.

## 2.3 The rapid development of agricultural e-commerce

In 2019, the national online retail sales of agricultural products was 416.86 billion yuan, an increase of 24.8% over 2018, and the retail volume was 14.14 billion pieces, an increase of 33.2% over 2018. In 2019, 71.8% of the national agricultural product online retail sales were concentrated in three categories of fresh products, cereals, oils and condiments, and snack foods. Among them, the online retail sales of fresh products exceeded 100 billion yuan, accounting for 26.3% of the total retail sales, becoming an agricultural product network The category with the largest share of retail sales[1].

At present, the Ministry of Agriculture and Rural Affairs has selected 14 provinces and cities including Shandong as pilot projects to explore the development path of agricultural e-commerce such as initial crops, primary or deeply processed agricultural products, and fresh agricultural products, and "takes 428 national-level poverty-stricken counties across the country as pilots. Carrying out targeted poverty alleviation activities for e-commerce in an all-round way, so that agricultural e-commerce can truly help alleviate poverty and increase income."

**Table 1** 2020 the number of leading enterprises in agricultural industrialization in Chinese mainland provinces and cities

Beijing	36	Hubei province	39
Tianjin	13	Hunan Province	43
Hebei Province	43	Guangdong Province	52
Shanxi Province	29	Guangxi Province	31
Inner Mongolia	35	Hainan	14
Liaoning Province	46	Chongqing	29
Jilin Province	42	Sichuan Province	58
Heilongjiang Province	43	Guizhou Province	22
Shanghai	17	Yunnan Province	23
Jiangsu Province	59	Tibet	6
Zhejiang Province	52	Shaaxi Province	34
Anhui Province	41	Gansu Province	24
Fujian Province	46	Qinghai	15
Jiangxi Province	37	Ningxia	19
Shandong Province	78	Xinjiang	42
Henan Province	52		

In addition, large e-commerce companies such as JD.com, Taobao, Tmall and Suning are also accelerating their deployment, leading the development of agricultural e-commerce.

## 3 Problems in the integrated development of rural primary, secondary and tertiary industries

### 3.1 Insufficient capabilities of operating entities

The farmer-dominant type is difficult to scale, and the main business entity has insufficient market information access capabilities, which easily leads to blindly following production, which leads to market saturation and excessive competition. When agricultural products are sold, most of them are primary products that have not undergone deep processing, and the profits are higher[2]. The link is still controlled by the downstream of the industrial chain, and the effect of farmers' income improvement is poor; finally, the operating entities are slow to respond to market fluctuations and have poor ability to withstand market risks. However, there are some problems with this dominant approach: First, foreign companies entering the countryside to invest will face the problem of "entangled" with the interests of local residents. Farmer professional cooperatives lack the leading innovation. In order to minimize the operating risks, professional cooperatives are more inclined to enjoy the positive external effects brought by other cooperatives; professional cooperatives often lack a complete benefit distribution mechanism, the overall quality of the leader is not high, and the management Problems such as unreasonable organization settings have made the employees less motivated to work and the production efficiency is low.

### **3.2 The interest linkage mechanism is not perfect**

Leading enterprises are an important promoter of the integration of the three rural industries, but leading enterprises are in a strong position relative to farmers in the process of benefit distribution, have more voice, and have the possibility of "invading" the interests of farmers. Therefore, they must use a mechanism of interest checks and balances. To balance the rights between the two. At present, some areas have established farmers' joint-stock cooperative organizations, but the organization is still in the early stage of establishment. Due to the imperfect internal system of the organization, the unreasonable organization setting, the low quality and poor ability of the organization leader, etc., the benefits of the balance mechanism have played a role. Relatively small or even negligible[3]. The benefit distribution mechanism is unreasonable. Compared with the enterprise, there is no equal right to speak, even if the two parties sign a transaction contract. The prices of agricultural products, land, labor, technology and other factors of production also lack fairness; on the other hand, most of the "loose" or "semi-closed" benefit linkage mechanisms formed between farmers and enterprises, lacking "close" linkages Mechanism, which leads farmers to participate in the process of industrial integration only by selling simple primary agricultural products or providing production factors such as land and technology. However, most of the profits in the production and sales links are obtained by enterprises, and it is difficult for farmers to get from the downstream links of the industrial chain.

### **3.3 Low integration level and single model**

From the perspective of the integration of agriculture and productive services, the output value of China's agricultural productive services in 2017 was 486.58 billion yuan, but only accounted for 4.34% of the total agricultural output value; from the perspective of the integration of agriculture and leisure tourism, 2017 The operating income of China's leisure agriculture reached 620 billion yuan, an increase of 4.17 times over 2010, but it only accounted for 10.6% of the total agricultural output value. A series of data shows that China's current level of integration of rural primary, secondary and tertiary industries is still relatively low. The model of industrial integration is single, and horizontal integration is less involved. Based on the experience of the integration and development of the three industries in the United States, the horizontal integration between agriculture and other industries, such as precision agriculture, biological agriculture, and molecular agriculture, not only makes agriculture more versatile. Being fully tapped will also help reduce labor intensity, improve agricultural production efficiency and development quality, and alleviate resource shortages in other fields. The benefits of horizontal integration are self-evident. However, China is still in the initial stage of promoting the integration of the three industries in rural areas, and the relevant technologies are not mature

enough, so most of the energy is put on the vertical integration between industries, and rarely involves the horizontal integration between agriculture and other industries.

### **3.4 Insufficient supply of capital, land, talents and other factors**

Difficulty in loans and expensive financing are the primary constraints for insufficient funding. This problem makes "62.16% of business entities can only borrow from relatives and friends or "underground banks", and 37.84% of business entities tend to borrow from rural commercial banks and rural funds. Mutual aid agencies and other institutions lending." In addition, the loans obtained by agricultural enterprises are mostly short-term loans, with the proportion of medium and long-term loans being less than 20%, and the loan amount is relatively low. Although the transfer of rural contracted land is generally carried out by the village committee entrusted by the contractor, the effect of the enterprise contracting the land on the increase of farmers' income is not obvious. By virtue of its own comparative advantage, it "occupies" the interests of the farmers; the cooperatives are in vain. In addition, Due to the lack of a comprehensive land planning platform, and the management of contracted land, homesteads, construction land, and rural assets involves multiple departments, the problem of inconsistent land contracting regulations has arisen, making land transfer procedures very cumbersome.

## **4 Countermeasures for the integrated development of rural primary, secondary and tertiary industries**

### **4.1 Increasing support for industrial integration business entities**

First, leading enterprises should be encouraged to establish production bases or characteristic industrial parks to solve the problem of raw material supply, save transaction costs, enable products to be produced in accordance with uniform standards, create specialty agricultural products brands, and promote the construction of "one village, one product". Second, encourage leading enterprises to carry out agricultural products deep processing projects, increase the added value of agricultural products, accelerate the transformation and upgrading of leading enterprises, and vigorously develop high-end industries in the value chain such as e-commerce and logistics. Finally, actively promote the "leading enterprises + farmers", "leading enterprises + bases + farmers" and other benefit linkage models. Based on the leading enterprises' radiant driving ability to the local economy and the increase in farmers' income, certain subsidies or tax incentives will be given to leading enterprises to enhance the leading enterprises. Enterprises drive the enthusiasm of the integrated development of primary, secondary and tertiary

industries. Increase support for farmers' professional cooperatives. The unique products of the region will shape the brand of agricultural products in the region, attract capital, technology, talents and other production factors to flow into the local area, and drive the development of the region's industry. Finally, speed up the cultivation of new types of professional farmers.

#### **4.2 Improving the mechanism of close interest linkage**

For the smooth advancement of industrial integration, it is necessary to improve the current interest linkage mechanism, so that the relationship between the enterprise (cooperative) and the farmer is changed from a "loose" or "semi-closed" relationship to a "closed" relationship, so that the farmer can become a part of the industrial chain. "Insiders". First, develop contract agriculture. Second, innovate the benefit-sharing model. Third, form an industrial consortium. Enterprises and farmers jointly form industrial associations such as cooperatives and family farms. The two have equal status in the production and operation process. Decision-making and implementation are based on one share, one person, one vote, and profits are distributed according to operating income and shares, forming a "farmer share + guarantee The management and operation mechanism of "income + dividends by share" reduces the possibility of enterprises "invading" the interests of farmers due to their dominant position, and enhances farmers' market trading position and income. Fourth, increase publicity on the social responsibilities of industrial and commercial enterprises. From the legal aspect, establish a "risk sharing and benefit sharing" mechanism, actively guide farmers to sign contracts with other business entities, strengthen the contract awareness of industrial integration business entities, so as to avoid the problem of non-performance in the later period, and ensure that each business entity is in the countryside three times The legitimate rights and interests in the process of industrial integration.

#### **4.3 Promote the deep integration of rural industries**

First, strengthen the construction of local agricultural product raw materials bases, promote the production of high-quality agricultural products, optimize the primary industry in rural areas, and develop green circular agriculture, such as mulberry-based fishing ponds and cane-based fishing ponds; second, speed up the production and processing plants of agricultural products In the construction of agricultural products, the processing plants are classified according to the different types of agricultural products processing, and the added value of agricultural products is increased through professional production and fine processing, and efforts are made in the "specialization" and "precision" of agricultural products. Third, strengthen the construction of the productive service industry. Integrate large-scale e-commerce companies such as Alibaba, Cloud Farm,

Nongyi.com, Yonong Mall, and JD.com to provide service industries such as cold storage rooms and logistics parks to build a new agricultural socialized service system with full coverage, regional integration, and complete supporting facilities. Second, accelerate the "three integrations." Finally, pay attention to the "three improvements."

#### **4.4 Break through the bottleneck of production factors one by one**

In terms of funds, it is necessary to expand financing channels. The integration of the three rural industries as an important starting point for agricultural supply-side reform is a systematic project that requires the joint efforts of the state, financial institutions, and enterprises to provide financial support. Coordinating and arranging various agriculture-related funds and innovating rural financial service models. In terms of land, there are multiple ways to ensure land for development. First, the various land management departments should strengthen cooperation and manage the land in accordance with unified rules. For the area of contracted land, a unified standard is used to scientifically measure the land, and to accurately verify various data. Second, improve land utilization. In terms of talents, to cultivate and attract agricultural professionals to cultivate and attract agricultural professionals, we must first accelerate the development of agricultural special skills education, and secondly, innovate agricultural talent training models, and cultivate modern agricultural practitioners through the combination of production, education and research, and school-enterprise cooperation. Agricultural professional managers and agricultural compound talents.

### **5 Conclusion**

Industrial integration is an important embodiment of urban-rural integration. It is necessary to cultivate and expand rural industries, build a modern urban-rural industrial system, and enhance the competitiveness and modernization level of the industrial chain; Give full play to the role of new business entities such as family farms and leading enterprises, and improve the interest connection mechanism of business entities; Build a platform for the integration of urban and rural industries, and promote the two-way flow of factor resources. From the organization, policy, talent, capital and other aspects to ensure the implementation of industrial integration, promote industrial prosperity, residents' income and social prosperity.

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