

## Research Article

# Research on the High-Quality Development Model of China's Grain Industry from the Perspective of Rural Revitalization

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Food security concerns people's livelihood. Under the background of urban-rural integrated development and accelerated rural revitalization, high-quality grain production is the foundation of agricultural modernization, and grain industrialization is the only way to realize agricultural modernization. How to produce high-quality food has been widely concerned. The goal of this paper is to establish the modernization of the entire industrial chain of food production, laying a foundation for comprehensive revitalization for the high-quality development of the food industry and the realization of food industrialization. From the perspective of rural revitalization, the high-quality development model of China's grain industry is studied. This paper gives new progress and new achievements in the high-quality grain development model, which requires a more precise and internally driven policy support system. The high quality of the food industry will help to improve the level of food industrialization, expand the economy of the food industry, accelerate the process of agricultural modernization, and ultimately realize rural revitalization and an all-round well-off society in rural areas.

## 1. Introduction

China is a populous country. Solving the problem of food is always the top priority of governance. China puts forward the implementation of the strategy of rural revitalization and requires that the country's food security be ensured, and the Chinese people's rice bowl is firmly held in their own hands. In the context of the implementation of the rural revitalization strategy, it is of great practical significance to promote the food industry. In order to build a higher-level, higher-quality, more efficient, and more sustainable food security system, promote the revitalization of rural industries and agriculture (Xiao [1]). In the face of changes in the domestic and international environment, especially domestic development conditions and development stages, Comrade Xi emphasized the high-quality development is the fundamental requirement for China to determine development thinking, which formulates economic policies and implement macrocontrol.

The Chinese economy has shifted from a stage of rapid growth to a stage of high-standard development. The 2019

government work report pointed out that a high-standard economic cycle refers to improving total factor productivity and achieving sustainable development under conditions of scarce resources (Huang [2]). It is necessary to reform and improve relevant systems and coordinate to promote high-standard development. In order to solve the main contradictions in Chinese society and embody the five development concepts of innovation, coordination, green, openness, and sharing, the connotation of high-standard development should include high-quality supply and demand, high-quality allocation, high-quality income distribution, and high-quality economic cycles. General Secretary Xi Jinping attaches great importance to food issues. He emphasized that China is a major agricultural country. The rural revitalization strategy is an extremely important part of high-quality development [3]. The primary task is to ensure the self-sufficiency of important agricultural products, especially grain. It is necessary to vigorously promote the structural reform of the agricultural supply side, seize the core competitiveness of food, upgrade the value chain, and improve the

quality, which realizes the integration of food security and modern and efficient agriculture. The grain industry is actually a collection of economic activities of all legal and natural persons engaged in grain production and management. Food production is the foundation of industrial development.

Therefore, the high-quality development of the food industry is a coordinated green development of food production, food enterprises, and the food industry. It is based on high-quality production, high-quality enterprises as carriers, and high-quality industries as a platform, through the realization of output and quality coordination. Development, green development of enterprises and farmers, integrated development of industry and industry, and harmonious development of man and nature earnestly safeguard national food security.

## 2. Related Work

China's high-quality industrial development is based on following the laws of China's economic development and maintaining a healthy and sustainable development of the country's economy. The changes in the high-quality development of the industry are following the new normal brought about by China's economic development [4, 5]. Based on this background, to avoid the "Great Leap Forward," China should establish correct development concepts and establish development goals, fundamentally explore the concept of high-quality development, use innovation as the first driving force for high-quality industrial development, take the initiative to undertake development tasks, actively promote the concept of green development, and promote the high-quality development of China's industry [6]. The changes in the main contradictions of Chinese society are spurring us to meet people's growing needs for a better life from the high-quality development of the industry. Based on solving qualitative problems, it is necessary to better integrate with quantity, to bring more satisfaction and happiness to the Chinese people.

*2.1. Circular Economy Model.* China has unique expertise and complete intellectual property rights in the comprehensive utilization of rice bran and rice husk, the by-products of rice processing. Rice bran is used for rice bran edible oil production, and rice husk is used for fuel production for dryer operations, which increases the benefit of rice processing. In order to ensure a high-quality source of rice raw materials, an agricultural industrialization consortium was established through the method of "company + agricultural scientific research institution + farmer professional cooperative association + base." The company is responsible for the establishment of the consortium's production and operation plan, product quality standards, and purchase of rice at a premium price [7]. The Rice Research Institute, a scientific research institution, is responsible for formulating implementation plans for scientific and standardized production of crops, breeding and recommending high-quality varieties, providing agricultural production materials, and supporting technical services, such as the use of rapeseed straw to return to the field. The professional planting cooperatives and fam-

ily farms are responsible for organizing and carrying out standardized production of high-quality rice in accordance with product quality and quantity requirements and producing and providing rice that meets high-quality standards product [8]. The constructed agricultural industrialization consortium has further leveraged the respective advantages of enterprises, scientific research institutions, cooperatives, family farms, and planting farmers. It has built 15,000 mu of planting demonstration bases and jointly built 300,000 mu of high-quality rice planting bases. The integration of the three main industries of "1 + 1 + 1 > 3" will improve the overall competitiveness and economic benefits of rice operators.

*2.2. Full Industry Chain Model.* China has built a full industrial chain with "one base and three centers" as the core. "One base" refers to the raw material base, which has built 450,000 mu of raw grain for orders in surrounding counties and cities; the "three centers" refer to the processing center, warehousing and logistics center, and R&D center, respectively. Among them, the processing center includes three items: one is the annual processing of 300,000 tons of special flour. It mainly produces high-grade medium and high-gluten special flour. The main varieties include strong-gluten bread flour series, medium-gluten civilian flour series, low-gluten pastry flour series, industrial customers' special flour series, gift small packaging series, and other five series. It mainly supplies well-known national companies such as Master Kong, Daliyuan, Panpan, Sanquan, and Si Nian; the second is the production of 180,000 tons of feed per year. The main products are the processing of wheat bran and corn, and the products produced are high-end pig feed. The third is the processing of snack foods [9]. The main products are high-end bread, cakes, shaqima, rice crackers, rice crackers, egg rolls, Swiss rolls, candies, puffed snack foods, and more than 100 varieties in ten series. The entire agricultural industry chain was originally proposed by COFCO, and the COFCO industry chain model is currently in the deep industrial integration of diversified single products [10]. From the field to the table, the management of the "whole industry chain" including agricultural services, planting, purchasing, storage and logistics, trade, processing, breeding and slaughtering, food manufacturing, and marketing, *Netease Black Pig*, *New Hope*, *Wen's*, *Young Eagle Farming and Husbandry*, etc., are all engaged in modernization, advanced equipment, advanced technology, advanced processing lines, and products from cold fresh meat to marinated products, to meet the daily consumption needs of the public.

*2.3. Tertiary Industry Integration Model.* In the food industry, China has not only created a full-industrial chain business model that integrates grain seeding, harvesting, storage, processing and transformation, logistics distribution, and terminal retailing but also based on all enterprises are concentrated in industrial parks, and all populations are in new cities. Based on the principle of "community concentration and all cultivated land concentrated in agricultural machinery cooperatives," we will follow the development

path of new industrialization, new agricultural modernization, and new urbanization [11]. New-type industrialization-enterprises are concentrated in the park, the construction of grain deep processing industrial park, the centralized layout of agricultural product processing enterprises, warehousing and logistics enterprises, etc., forming two major functional areas of processing, warehousing, and logistics. The completed agricultural product-processing zone can process 450,000 tons of corn and 1 million tons of wheat forms 2 pillar industries driven by the brand. The agricultural product processing industry cluster is the key force and implementation path to implement the revitalization of rural industries [12]. The farmers produce a leading agricultural product, the large number of agricultural product processing enterprises and their upstream and downstream industries, governments, associations, and financial institutions in a specific area. The scientific research institutes and other related supporting institutions are gathered together at a high density and are closely linked with each other through trade and nontrade means and develop professional division of labor and cooperation, forming a biological-organism-like, common, and complementary industrial assembly. The development of agricultural product processing industrial clusters can drive the joint development of local related industries, effectively promote the development of urban and rural integration, and promote regional economic development. It can effectively extend the value chain, improve the level of rural industrialization, and improve the competitiveness of agricultural products in the market. It can broaden agricultural employment channels and drive farmers' income to become rich. It can stimulate and expand the versatility of agriculture, promote the development of industrial integration, and help rural revitalization.

New type of agricultural modernization-land is concentrated in cooperatives, agricultural production and ecological sightseeing areas are built, and large-scale production and organized management are realized. Enterprises and farmers have jointly established agricultural machinery service cooperatives [13]. New-type urbanization-farmers are concentrated in the community to build resettlement and recreational areas for rural residents. Realize the transformation of farmers into urban residents and industrial workers through the withdrawal of villages and living together. The integrated development of primary, secondary, and tertiary industries will improve the scale, industrialization, intensification, and organization of the grain industry [4, 5]. In terms of trade structure, we are good at making good use of the domestic and international "two markets and two resources," and by appropriately increasing imports and accelerating the pace of agricultural "going out," we can effectively make up for the gap in domestic grain market demand. The high-quality development of the food industry is to increase the effective supply of food and ensure food security. The relationship between high-quality development and efficient macrocontrol should be that the high-quality development of the food industry provides a rich material basis for macrocontrol, and efficient macrocontrol provides effective support for ensuring food security and creates a

good environment for the continued growth of the food industry. Therefore, the high-quality development of the food industry and the efficient macrocontrol capabilities are an organic whole that is closely connected and complementary. Many rural revitalization models fully confirm the overall competitiveness and internal vitality that "integration" brings to rural development. From high-quality agricultural products to characteristic deep-processed products, from tourist homestays to retail logistics, this article focuses on strengthening the industrial chain, so that the emerging model of rural revitalization proves the great value of the idea of "integration of the three industries," which also allows the development results to better benefit the general public.

### 3. High-Quality Development Model of China's Grain Industry

China is a large agricultural country. Baidu has a rural population of 900 million, accounting for 70% of the country's population, and an agricultural population of 700 million, accounting for 50.1% of the total industrial population. Grain production has remained above 110 billion catties for many years, which not only solved the food problem of more than 1.3 billion people but also transferred 40 billion catties of raw grain and processed products each year, making outstanding contributions to ensuring national food security. In recent years, China has made great progress in the construction of food infrastructure, comprehensive agricultural production capacity, and the level of scientific and technological equipment. In the food industry, the "three major systems" of production system, management system, and industrial system have initially established, to a certain extent promoted the high-quality development of the food industry [14]. At the same time, various localities have explored some typical models on the road to promote the high-quality development of the grain industry, such as the circular economy model, the entire industry chain model, and the three-industry integration model, providing experience and reference for the high-quality development of the food industry.

*3.1. High-Quality Food Supply for High-Quality Development.* The high-quality development and demand pattern should not only stop at meeting the balance of domestic grain production and demand but should be a strategic balance based on effective control of grain growing behavior and income expectations. From the point of view of reliable quality, high-quality food production should be a standardized, intensive, and mechanized production method, with a technology-intensive, capital-intensive, and moderate-scale development path. Form a spatial layout with diverse varieties, reasonable structure, and regional balance. It is necessary to take strict measures from the perspectives of high-quality production, high-quality storage, high-quality grain, and high-quality food, which close the quality of varieties, production technology, and ecological environment and provide more products with superior quality, healthy nutrition, and green ecology.

In recent years, China's grain supply-side structural reform has made significant progress. First, a breakthrough was made in the market-oriented reform of the grain purchasing and storage system. The temporary purchase and storage of rapeseed were cancelled, and the market-based purchase of corn and soybeans plus producer subsidy mechanism was implemented, and the corn market price gradually became in line with the international market. Gradually lower the minimum purchase prices for wheat and rice, and change the expectation that prices will only rise but not fall. The second is the continuous optimization of the grain planting structure [15]. According to data from the Ministry of Agriculture and Rural Affairs, the sown area of grain corn in 2017 was reduced by 52 million mu compared with that in 2015, and the sown area of soybeans increased by 17.46 million mu compared with 2015. The area of high-quality strong gluten wheat accounted for 28%, the growth of 2.8 percentage points from 2016. The area of high-quality rice accounts for more than 80%, the growth of 1.5 percentage points from 2016. The third is the continuous adjustment of "green" grain production. Chemical inputs such as fertilizers and pesticides have achieved "zero growth." The amount of fertilizers, pesticides, and agricultural film used has reduced from 60.226 million tons, 1.783 million tons, and 1.455 million tons in 2015 to 58.594 million tons and 16.55 million tons in 2017. In addition, 1.437 million tons is a decrease of 2.71%, 7.73%, and 1.25%, respectively (Table 1). Fourth, the supply of high-quality grain and oil products continues to increase. Driven by the "China Good Grain and Oil" initiative, several famous and special new brands have emerged, such as "Qilu Cereals and Oils," "Shanxi Millet," "Sumi," "Jilin Rice," "Guangxi Fragrant Rice," "Jingchu Land," and "Tianfu Vegetable Oil," become the vanguard of regional brands.

*3.2. High-Quality Development with Higher Economic and Social Benefits.* As the core area of agriculture, the food industry has always regarded as a basic industry for national development. The development of high-quality food industry must meet the needs of economic development, coordinate with economic development, and fully meet the needs of maximizing social benefits [16]. China has clearly pointed out that economic development must take the path of improving quality and efficiency, driving innovation, low-carbon and green, and coordinated and shared. Therefore, the high-quality development of food industry must be compatible with the overall layout and progress of macroeconomic development, which must also be unified with the social benefits of stabilizing growth, promoting reforms, adjusting the structure, benefiting people's livelihoods, preventing risks, and insisting on the greatest social benefits of the food industry.

The high-quality development of the grain industry is the fundamental way to ensure national food security. From the perspective of quantitative security, China's grain output has stabilized at more than 600 million tons for seven consecutive years, with sufficient stocks (Figure 1). Per capita food consumption is higher, which is excluding soybeans; there is no quantitative gap in food security. However, the

TABLE 1: The use of pesticides and fertilizers in China in recent years.

Year	Fertilizer usage	Pesticide usage	Plastic film usage
2010	4143	144	121
2015	6028	179	156
2016	5986	175	147
2017	5859	166	144
2018	5762	158	137
2019	5683	149	126

Data source: China Rural Statistical Yearbook.

foundation of quantitative security is not strong, mainly relying on policy stimulus and factor input, the endogenous motivation for sustained growth is insufficient, and resource and environmental constraints are becoming increasingly prominent.

*3.3. High-Quality Development Must Achieve Better.* From the perspective of food business enterprises and organizations, the development of high-quality food industry requires individual innovation capabilities, obvious technological advantages, strong capital, advanced management, and internationally competitive leading companies to act as the commanding heights of industrial development and participate in international competition [17]. The leader has won a place in the development of the entire industry chain, the integration of the tertiary industries, and the global supply chain and value chain. The high-quality development of food enterprises also means low cost, low energy consumption, low pollution, low loss, high output, high utilization, high conversion, high efficiency, deep processing, and compliance with high-quality food engineering, food saving and loss reduction, and food security engineering planning [18]. The grain and oil project and other key national grain plans have completely changed the current development dilemma faced by grain enterprises and embarked on a path of green growth. High-quality development includes product structure, regional structure, element structure, organizational structure, and trade structure. The optimization of the industrial structure is the key to achieving coordinated development, that is, by optimizing the allocation of resources, the supply structure is continuously adapted to the demand structure, and the continuous, coordinated, and high-quality development of the food industry is promoted. In terms of product structure, the food products produced can effectively meet market demand, the supply system is efficient, and the balance of food supply and demand can be achieved at a high level [19]. The comparative advantages of grain production layout and processing layout have been brought into full play, the connection between production and sales has been stable and smooth, grain production areas have stable sales, and grain sources in sales areas have a reliable guarantee. In terms of the factor structure, the promotion of the development of the grain industry has shifted from relying mainly on policy support and resource consumption to relying on innovation to drive and improve the quality of workers and to transform growth



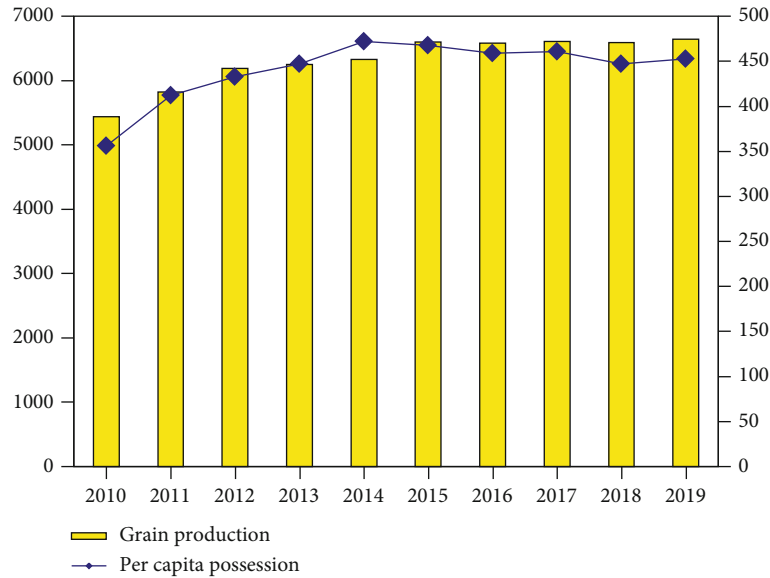


FIGURE 1: China's grain output and per capita share in recent years.

momentum. In terms of organizational structure, develop moderately large-scale operations, use grain processing as the engine, and promote the five excellent linkages of “production, purchase, storage, and sales.”

#### 4. Results and Discussion

Promoting the structural reform of the agricultural supply side and promoting the high-quality development of the food industry is an urgent requirement to solve the current imbalance and insufficient development of the food industry. It is also an urgent requirement to continuously improve the quality, efficiency, and competitiveness of agriculture and to achieve the integration of food security and modern and efficient agriculture. Relevant national departments launched the high-quality grain project in the field of grain circulation in 2017. The project has achieved remarkable results in the past three years since its implementation. Figure 2 shows the China's cash income from wheat and corn.

According to statistics from relevant departments, the high-quality grain project has achieved national coverage, and several representative demonstration counties, demonstration enterprises, and demonstration projects have initially formed. From the perspective of the implementation effects of various regions, there are mainly the following effects: First, the guiding role of fiscal funds has played to effectively activate the market and mobilize the enthusiasm of local governments at all levels and various grain operators to participate in the implementation of the project. According to statistics, under the guidance of nearly 20 billion yuan invested by the central government in three years, more than 55 billion yuan of social capital was used to participate in project construction, laying a solid foundation for the implementation of the project. The second is to promote the expansion of the food industry chain and the promotion of the value chain. For example, the construction of the grain

postproduction service system of the project focuses on supporting the construction of specialized operational grain postproduction service centers, providing one-stop services such as “cleaning, drying, purchasing and storage, processing, and sales.” The problems of unscientific postproduction management and large losses have solved, and the grain industry chain has expanded, forming a value chain for increasing grain income. The third is to integrate social element resources and strengthen basic capacity building for food quality assurance. The fourth is to promote the improvement of grain quality and increase farmers' income. The project explores and implements the “five-optimal linkage” of superior grain, superior production, superior purchase, superior storage, superior processing, and superior marketing, effectively alleviating the problems of irrational production capacity structure of the grain industry, insufficient supply of high-quality products, and insufficient deep processing capabilities.

*4.1. Future Work.* In the future, high-quality grain projects are the starting point used to accelerate the high-quality development of the grain industry.

First, deepen the high-quality grain project. On the one hand, it is necessary to further promote the implementation of the high-quality grain project implementation, fully develop a demonstrative and leading role, strengthen the construction of the promotion mechanism, strengthen the implementation and management, and effectively promote the high-quality development of the grain industry to make a good start. On the other hand, we must step up plans and studies to incorporate the “shortcomings” and weaknesses that are urgently needed for the high-quality development of the grain industry into project construction and gradually expand the field and scope of implementation of high-quality grain projects.

Second, provide institutional supply and institutional support for the promotion of high-quality development of

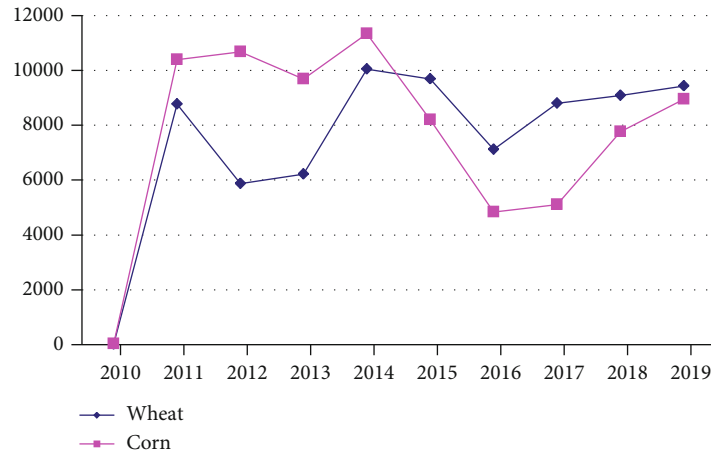


FIGURE 2: China's cash income from wheat and corn.

the grain industry. We must continue to deepen the shape of food prices, reform the production mechanism and storage system, optimize the grain support policy, further activate the main body, factors, and the market, and provide basic market institutional arrangements for the high-quality development of the grain industry. We must further clearly define the functional objectives and management boundaries of food security and the development of the food industry and form a mechanism arrangement that has an effective market mechanism, a dynamic micromain body, and a degree of macrocontrol. Third, efforts should have made to achieve innovation-led, consumption-driven, reasonable structure, and effective supply, to meet the needs of residents' consumption transformation and upgrading and to meet the increasingly diverse and diverse needs of consumers. Further formulate and introduce policies and measures similar to high-quality grain projects to more effectively expand the grain industry chain, enhance the value chain, optimize the profit chain, promote farmers' income, increase corporate efficiency, and achieve deep integration and integrated development of the primary, secondary, and tertiary industries.

*4.2. The Improvement of the Food Industry Development.* One is to improve the supporting policies for the grain industry. Apply financial, financial, insurance, and other policy levers to guide moderate scale operations, and cultivate a group of new business entities and family farms with modern business concepts. The second is to strengthen infrastructure construction. Increase investment in the construction of agricultural infrastructure such as water, electricity, ditches, and canals, intensify the improvement of high-standard farmland, and improve the application capacity of modern agricultural technology. The third is to improve the social service system. Actively cultivate a socialized service organization for the entire agricultural production process, build a comprehensive agricultural socialized service system, and provide a strong system guarantee for the trusteeship of key links in production and operation.

One is to innovate the benefit-sharing model. Innovatively establish a cooperative model of "cooperative + village

committee + farmer households," encourage and guide farmers to join the cooperative in various forms such as guaranteed dividends, share cooperation, etc., and gradually form a solid relationship of interest. Hence, farmers can fully enjoy the modern grain industry, which brings higher benefits. The second is to improve the system of benefiting farmers. Intensify the exploration of the deep integration of small farmers and modern agriculture and the realization of ways, so that the production of small farmers can be continuously integrated into the production of modern food industry. The first is to cultivate excellence and strengthen new business entities. Comprehensively strengthen the support of policies, funds, projects, etc., actively cultivate new agricultural business entities, and develop diversified cooperation. The second is to improve the degree of organization of farmers. Through cooperation and alliances, the focus will be on solving the problems of small scale and weak driving force of specialized farmer cooperatives, so that farmers can obtain higher economic benefits.

One is to improve the level of agricultural science and technology. Improve farmers' ability to master modern new technologies such as mechanized operations, precise fertilization, and unified prevention and governance and further improve the scientific and technological level of various aspects of agricultural production such as farming, management, and harvesting. The second is to strengthen the cultivation of new farmers. Taking farmers who are truly engaged in agricultural production and willing to improve their quality and skills as the objects of cultivation, cultivate more new-type professional farmers who love agriculture, know technology, and be good at management on the spot, so that the development of modern agriculture has more endogenous driving force.

*4.3. The Practical Value of the Grain Industry Development.* The small-scale farmer's grain production model is no longer suitable for the current food security needs. It is necessary to involve various market players. Through the introduction of Sinochem's agricultural MAP model and the cultivation and expansion of new business entities, it has effectively solved the problems of how to concentrate

rural land, who will grow rural land, and who will provide agricultural services.

By improving the credit information collection and evaluation system of small farmers, expand the scope of mortgages for agricultural and rural loans, fully implement mortgage loans for the management rights of rural contracted land, and improve the financing capabilities of small farmers. In addition, speed up the pilot agricultural catastrophe insurance, the implementation of the three major food crops' full cost, and income insurance covers all small farmers, support the development of crop insurance closely related to small farmers, etc., and concentrate strengths to improve the security network for high-quality food development.

In accordance with the requirements of "all agricultural industries must be connected to poverty alleviation, all agricultural projects and funds must be linked to poverty alleviation, and all agricultural work must be related to poverty alleviation," the construction of food industry development projects must be carried out. The implementation of industrial poverty alleviation measures in the link, especially the guaranteed minimum dividends after the project construction forms the village's collective assets, has strengthened the organic connection between industry and poverty alleviation and has promoted the stable increase of income for registered households.

## 5. Conclusion and Recommendations

The proposal of the rural revitalization strategy provides development opportunities for improving my country's overall economic strength, realizing the balanced development of urban and rural areas, and building modern agriculture. China must adhere to the concept of green, efficient, innovative, and harmonious development. The location advantage organically combined with the local unique agricultural resources has accelerated the transition from traditional agriculture to modern agriculture. This paper introduces in detail the industrial development of the primary, secondary, and tertiary industries connected with each other. Large-scale grain production is the foundation of agricultural modernization and the only way to realize rural revitalization. By promoting land transfer, this paper implements five-generation order service, building reserve banks, strengthening village-level collective economy, seed project construction, tourism agricultural implementation, and regional brand construction. The contributions of this paper are as follows. The whole industrial chain of food production lays the foundation for the comprehensive circulation of land in my country and accumulates strength for the high-quality development of the grain industry and the realization of grain industrialization. The high-quality development of the food industry will help guide agriculture-related enterprises to develop in the direction of high quality, specialization, and safety in accordance with market needs. It will help to improve the level of food industrialization, strengthen the food industry economy, speed up the process of agricultural modernization, and ultimately realize rural revitalization and an all-round well-off society in rural areas.

## Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

## Conflicts of Interest

The authors declare that they have no conflicts of interest.

## References

- [1] X. Jinhua, "The analysis on rural land reform from the perspective of rural revitalization: a case study on Jinjiang," *Town and Country Planning*, vol. 6, no. 9, pp. 67–73, 2018.
- [2] H. Zhidong, "Role of college-graduates village officials from the perspective of rural revitalization strategy," *Journal of Huaihai Institute of Technology*, vol. 16, no. 5, pp. 115–118, 2018.
- [3] Y. Yi, C. Zhao, and J. Fu, "Research on the integration and development of modern agriculture and rural tourism based on AHP—take Yangjia town in Mianyang city as an example," *Open Journal of Social Sciences*, vol. 7, no. 7, pp. 76–87, 2019.
- [4] A. Deng, J. Lu, and Z. Zhao, "Rural destination revitalization in China: applying evolutionary economic geography in tourism governance," *Asia Pacific Journal of Tourism Research*, vol. 26, no. 2, pp. 215–230, 2021.
- [5] G. Deng, G. Deng, F. Lu, F. Lu, X. Yue, and X. Yue, "Research on China's embodied carbon import and export trade from the perspective of value-added trade," *PLoS One*, vol. 16, no. 11, 2021.
- [6] X. Yang, Q. Liu, Q. Cao, and L. Lei, "Study on the rural revitalization path in the continuum depressed area from the perspective of inclusive green development: a case study of Qinba mountain area," *IOP Conference Series: Materials Science and Engineering*, vol. 780, no. 7, article 072045, 2020.
- [7] Y. U. Ying, Z. Wang, J. Huang, and S. Xiong, "Development model of rural complex against the backdrop of rural revitalization strategy: a case study of "baixianggu" in Jing'an county," *Asian Agricultural Research*, vol. 12, no. 5, pp. 10–14, 2020.
- [8] T. Li, Q. Li, and J. Liu, "The spatial mobility of rural tourism workforce: a case study from the micro analytical perspective," *Habitat International*, vol. 110, no. 7, article 102322, 2021.
- [9] L. Qi, M. Zhou, W. Bonenberg, and Z. Ma, "Smart Eco-Villages and Tourism Development Based on Rural Revitalization with Comparison Chinese and Polish Traditional Villages Experiences," in *Advances in Human Factors in Architecture, Sustainable Urban Planning and Infrastructure*, J. Charytonowicz and C. Falcão, Eds., vol. 966 of AHFE 2020. Advances in intelligent systems and computing, Springer, Cham, 2020.
- [10] X. Xu, "Impact of social capital on farmers'intention to adopt small water-saving equipment in yanggu county, Shandong province," *International Journal of Social Science and Education Research*, vol. 3, no. 5, pp. 107–113, 2020.
- [11] X. Chen, "The core of China's rural revitalization: exerting the functions of rural area," *China Agricultural Economic Review*, vol. 12, no. 1, pp. 1–13, 2020.
- [12] K. Li, Y. Zhai, Y. Tang, and J. Liu, "The path of fine leisure agriculture in southern Shaanxi from the perspective of rural revitalization," *Journal of Landscape Research*, vol. 11, no. 3, pp. 11–13, 2019.

- [13] H. G. Zheng, H. Y. Hu, and S. H. Liu, "Study on the construction of food safety traceability," *Chinese Agricultural Science and Technology*, vol. 6, no. 1, 2016.
- [14] A. Cheshmehzangi, "Reflection on disruptions: managing the city in need, saving the city in need," in *The City in Need*, Springer, Singapore, 2020.
- [15] Y. Jin, "Analysis of the effect of cooperatives on increasing farmers' income from the perspective of industry prosperity based on the psm empirical study in Shennongjia region," *Sustainability*, vol. 13, no. 23, article 13172, 2021.
- [16] H. Yu, M. Jiang, and T. Cui, "Research on the cultivation of new professional farmers in Jilin province based on the strategy of promoting agriculture by green environmental protection science and education," *Journal of Physics: Conference Series*, vol. 1549, no. 2, article 022095, 2020.
- [17] K. T. Sibhatu and M. Qaim, "Rural food security, subsistence agriculture, and seasonality," *Plo S one*, vol. 12, no. 10, article e0186406, 2017.
- [18] H. Long, Y. Zhang, and S. Tu, "Rural vitalization in China: a perspective of land consolidation," *Journal of Geographical Sciences*, vol. 29, no. 4, pp. 517–530, 2019.
- [19] J. Han, "Prioritizing agricultural, rural development and implementing the rural revitalization strategy," *China Agricultural Economic Review*, vol. 12, no. 1, pp. 14–19, 2020.