

# Consideration on Promoting Supply-side Structural Reform of Agriculture

## Taking Zaozhuang as an Example

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**Abstract**—This paper finds out the problems and constraints in the supply side of agricultural development in Zaozhuang thorough investigation on the status quo of agricultural development in Zaozhuang. For the actual problems of the investigation and study, feasibility suggestion is specifically studied for the supply-side structural reform of agriculture in Zaozhuang so as to promote the sustainable and healthy development of agricultural economy in Zaozhuang.

**Keywords**—Zaozhuang; agriculture; supply-side reform

### I. INTRODUCTION

"Agriculture is the root of the people as well as the root cause of the turmoil in the world, and the decline and prosperity of the country and its existence." As a big country with a population of 1.3 billion, China always regards agriculture as a top priority for all tasks to pay attention to. Whether the "issues of agriculture, farmer and rural area" can be handled has great strategic significance to the overall situation of China. The central governments regard the supply-side structural reform of agriculture as an important task of agriculture and rural work in the current and in the coming period for China. It is both an inevitable result of the forced transformation in agriculture development and an initiative selection to enhance agricultural competitiveness of China in the new situation. As local government, we should

respond positively to the call of the Central Party Committee and comprehensively promote the supply-side structural reform of agriculture so as to achieve the accumulation from quantitative change to qualitative change.

### II. DEVELOPMENT STATUS OF AGRICULTURAL ECONOMY IN ZAOZHUANG

Zaozhuang is accelerating the development pace of modern agriculture, and agricultural economy has made remarkable achievements. At the same time, the problems of low level of industrialization of agriculture and slow increase of peasants' income still exist in Zaozhuang, which seriously restricts the further development of agricultural economy.

In 2016, the gross output of agriculture, forestry, animal husbandry and fishery industry in Zaozhuang City reached 32.537 billion yuan, an increase of 4.6%. In terms of industries, the gross output of agriculture was 21,158 million yuan, increasing by 4.1%; the gross output of forestry was 283 million yuan, decreasing by 1.8%; the gross output of animal husbandry was 8,490 billion yuan, increasing by 4.9%; the gross output of fisheries was 837 million yuan, increasing by 3.9%; the gross output of services for agriculture, forestry, animal husbandry and fishery was 1.769 billion yuan, an increase of 9.6% as shown in "Fig. 1".

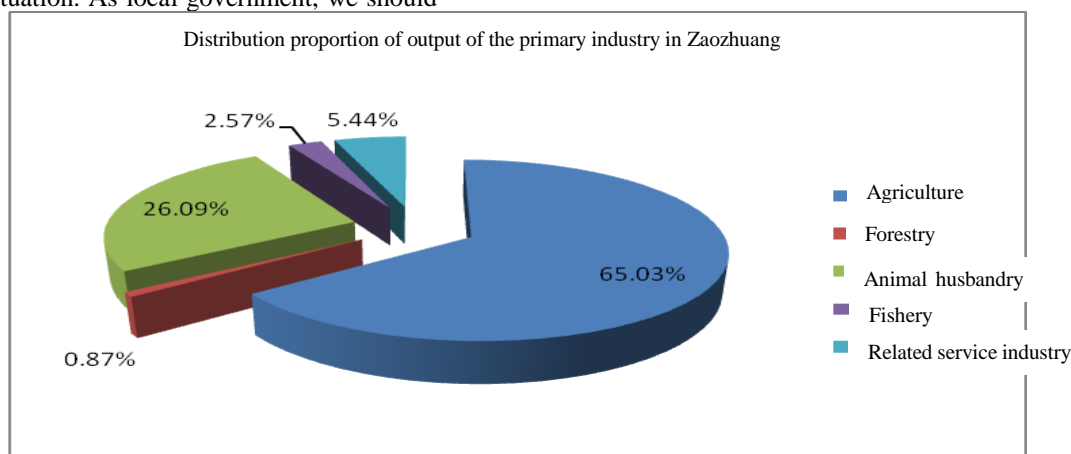


Fig. 1. Distribution proportion of output of the primary industry in Zaozhuang.

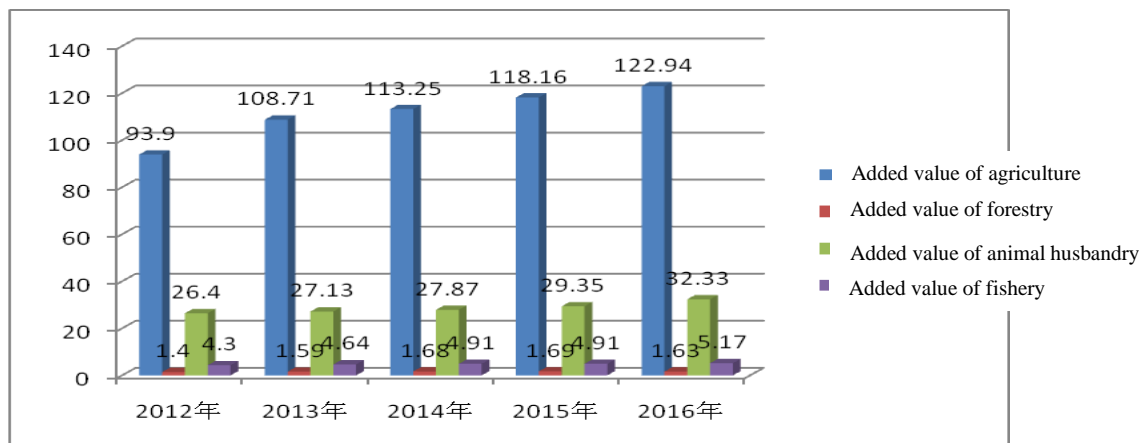


Fig. 2. Added value of primary industry in Zaozhuang City in 2012 -2016 (unit: billion).

According to the survey, the area of grain crops in the city decreased from 4.357 million mu to 3.81 million mu in 2012-2016. The total output decreased from 1.9878 million tons to 1.6325 million tons and the per unit yield reduced from 456.57 kg / mu to 427.58 kg / mu. In 2016, the total output of grain in the whole year reached 2.0284 million tons, an increase of 0.9%. The comprehensive per unit yield was 476.1 kilograms of mu, an increase of 0.8%. Both per unit yield and total output hit a record high. The annual vegetable planting area was 130.52 mu, an decrease of 0.8%; output was 4.6949 million tons, an increase of 0.6%. The oil plants area in the city was 33.01 hectares, an decrease of 1.1%; total output was 91,900 tons, an decrease of 4.1%. The orchard area in the city at the end of the year was 242,000 mu, an decrease of 4.3%; garden fruits was 24,500 tons, an decrease of 7.1%. In 2016, the added value of planting industry was 12.294 billion yuan, an increase of 4.1% as in "Fig. 2".

After five years of afforestation, the forest stock has increased from 5.73 million cubic meters to 6.41 million cubic meters. In 2016, the newly increased afforestation area was 129,000 mu, the newly growing seedlings area was 15,900 mu, and the newly built farmland forest net reached 47,000 mu. Newly developed economic forest was 4.5 million mu, of which the constructed demonstration base for pomegranates, long red dates, and walnut and so on was 1.35 hectares. 2 provincial-level leading enterprises were newly added, and the number of leading forestry enterprises above the provincial level reached 35. 28 forestry economy industry demonstration base, model village and demonstration households were newly added. In 2016, the added value of forestry was 163 million yuan, and the forestry production declined slightly as shown in "Fig. 2".

The output of major Animal products both increased and decreased while the total output of meat decreased. In 2016, the added value of animal husbandry reached 3.23 billion yuan, an increase of 4.9% as in "Fig. 2". In 2016, the total output of meat in Zaozhuang reached 254,000 tons, a decrease of 3.8%. It is expected that with the decline in the population of cattle and sheep breeding, weak shock period of beef and mutton consumption will gradually pass, and prices of cattle and sheep will gradually go upward.

The development of fisheries has been steadily rising. In 2015, the output of aquatic products decreased slightly, but it shows the growth trend overall in 5 years. Due to the frost damage and floods in the south, the situation of fishery aquaculture was good in 2016, with the prices of some fish keeping rising. The enthusiasm of fishermen was higher, and the major economic indicators increased steadily. In 2016, the stocking area of fisheries reached 192,000 mu, an increase of 2.6% over the same period of last year. Output of aquatic product was 96,000 tons, an increase of 5.5%. In 2016, the added value of fishery was 514 million yuan, an increase of 3.9% as shown in "Fig. 2".

### III. THE MAIN PROBLEMS IN THE DEVELOPMENT OF AGRICULTURAL ECONOMY

#### A. Tension in Support Factors for Agricultural Development Results in the Increase in Pressure on Stable Increase of Agricultural Production

At present, the cost of seeds, fertilizers and labor costs for food crops by farmers has been rising, which causes the year-by-year increase in the cost of growing grain and affects the enthusiasm of farmers in growing grain. In 2016, due to the decline in grain prices, especially the price of corn, grain yield decreased significantly. Fluctuations of market prices reduced the farmers' income from grain growing, so enthusiasm for grain growing shows fluctuations. The grain-growing households' enthusiasm for the field management of grain is not high, and they even give up watering some plots, leading to a large drop in per unit yields of some plots.

Judging from the integrative development of primary industry, secondary industry and tertiary industry, agricultural development of Zaozhuang has not got rid of the single concept of agricultural production, without forming a complete industrial system. It mainly presents as follow: 1. The industrial chain of agricultural products is developing slowly, the deep processing of agricultural products is insufficient, the processing and transformation ability is poor, and the market competitiveness is not strong. At present, the number of leading enterprises with the scale above the city level in Zaozhuang only accounts for 3.5% of the province,

with sales revenue accounting for only 2% of the province. 2. The construction of agricultural products circulation and market coordination mechanism lags behind, lacking unified planning, without reasonable layout, and its quantity and scale are small, the facilities are backward and functions are incomplete; 3. The rural logistics and distribution network is not perfect. Due to the fact that agricultural products are generally produced in rural areas where logistics outlets are not perfect, which increases logistics costs invisible and thus restricts the development of "Internet + agriculture" in Zaozhuang. 4. There are hidden dangers in quality and safety of agricultural products, and the market competitiveness needs to be improved.

#### *B. The Proportion of Forestry Output Value Is small, and the Fund for the Forest Culture and Management Is Insufficient*

In 2016, the output value of forestry accounted for only 0.87% of the total output value of agriculture, forestry, animal husbandry and fishery. The value added of forestry increased steadily in 2012-2015 but decreased in 2016. Construction fund for forestry is the key factor that directly affects the production scale, quality and efficiency of the entire forestry. Incomplete link of investment in the forest culture and management, lagging funds for basic construction and the lack of management of capital costs will affect the enhancement of renovation of forestry equipment and forestry benefit.

#### *C. Problems of Animal Husbandry Production Is Centralized with Relatively Large Breeding Risk*

First is financing difficulties and high costs. The risk of aquaculture is relatively big, so the lending threshold of financial institutions to aquaculture enterprises is high. More than 70% of respondents report that borrowing loans is difficult and the interest is high. Farmers mostly raise funds through personal loans and personal financing. Although the interest is relatively high, the procedures are simple.

Second is business fluctuation and unstable earnings. In recent years, due to the impact of domestic supply and demand, the prices of live pigs and eggs in Zaozhuang fall as another rises. The phenomena of "pig cycle" and "roller coasters" of egg prices are frequently appear, which affects the sustainable and stable development of animal husbandry. Since April 2015, price of pig have been relatively high at the peak of the swine cycle. However, the sluggish price of pig, which lasted for nearly three years before April 2015, is still on the alert.

Third is the problem of livestock fecal pollution. With the rapid development of rural economy and the popularization and application of fertilizers, the gap between convenience and efficiency of livestock excrement used in the past was directly revealed. Therefore, livestock manure was arbitrarily piled up. Especially in rainy days, it causes serious pollution to the surrounding environment.

#### *D. The Quality of Rural Labor Is Low, which Restricts the Further Development of Economy*

First, with the expansion of scale of peasants' employment outside, a large number of young peasants with certain cultural qualities flow from rural areas to cities. The quality of agricultural labor force continues to be weakened. Their ability to receive external information is weak, and they are not good at using the agricultural science and technology. In most areas, the level of specialization, scale and intensification and socialization of agricultural production and management is the low, the degree of part-time agricultural production is high, and the moderate scale operation of is still in initial stage.

Second, inadequate attention is paid to rural technology and professional and technical personnel are less. In rural areas, there are only a few personnel with professional qualifications or professional skills. Some of the veteran cadres who have grown up in rural areas have a low culture quality. Some grassroots cadres are busy with day-to-day affairs and do not have enough energy. In some towns and villages, the number of agricultural technical personnel is low, which affects their work enthusiasm, so it is hard to retain talents. These factors have seriously affected the development of rural economy.

### IV. COUNTERMEASURES AND SUGGESTIONS ON DEVELOPMENT OF AGRICULTURAL ECONOMY

#### *A. To Increase the Efforts to Benefit Farmers and Strengthen Market Supervision*

"It is the most important task to solve the people's food problem in the eight tasks of governing the country." Through the ages, food security has always been the primary task of governing the country and bringing peace to the country. We will continue to improve the farmer-benefiting policy of grain production, increase the scale of agricultural subsidy funds, implement the subsidy policy for grain farmers, expand the scale of subsidies for agricultural machinery purchase, and gradually expand the pilot scope of subsidies for big farming household to ensure that the city's grain acreage maintains long-term stable, and the peasant grain receipts don't decrease; we should focus on the protection of agricultural land and stabilize the area of fertile land to ensure food production safety.

On the basis of implementing various subsidy policies, we can increase investment in infrastructure construction in rural areas, continue to strengthen the basic construction of farmland and water conservancy, enhance capacity for disaster reduction, disaster mitigation and natural disaster prevention, and comprehensively enhance the capacity for sustainable development of agricultural production. We can vigorously promote policy-oriented agricultural insurance, and actively expand the variety of agricultural insurance premium subsidies to provide protection for farmers to avoid production risks.

### *B. To Develop Efficient Agriculture and Increase Effective Supply*

With the improvement of people's living standards, people are more likely to pursue the improvement of living quality, and are paying more and more attention to food safety and environmental protection issues. We should actively develop modern agriculture with high efficiency and constantly explore new potential for agricultural development. First, optimize the industrial layout. For example, for animal husbandry, taking into account that livestock manure can be used as high-quality fertilizers for farmland and food and its by-products are also sources of livestock feed, it is better to choose the area where the plantation is developed with enough farmland, gardens and nursery around the farms as farm, to achieve the organic combination of agriculture, forestry, and animal husbandry; we can combine agricultural production and leisure travel organically to vigorously develop tourism leisure agriculture. Second, we must improve the food safety and environmental protection laws and regulations, so that there is law to follow. The certification work of organic food, green food and pollution-free agricultural products are included into the orbit of law, and certification standards and legal status of various certifications are made clear. Food raw materials are produced in the environment we rely on, so the merits of the environment affect the quality of food. Therefore, emphasis on environmental protection and food safety supplement each other.

### *C. To Speed up Industrial Integration and Improve the Industrial System*

Efforts should be made to promote the extension of agriculture to both ends of the pre-producing and post-producing period and encourage social forces to extensively integrate into the chain of industrialized operations to form a development model that integrates supply and marketing and planting and breeding and accelerate the optimization and upgrading of traditional agriculture. We can develop a number of leading enterprises with wide radiation area and strong driving ability and farmer professional cooperative around the leading industries. We will focus on cultivating ten leading agricultural enterprises such as Xianghe Dairy, Longzhen Farming and Animal Husbandry and Yingge Food, and support them to become bigger and stronger through mergers and acquisitions, shareholding and listing. We should vigorously develop the modern logistics of agricultural products, make efforts to cultivate large-scale agricultural marketing enterprises and accelerate the logistics distribution network from county to village and construction of village distribution network.

### *D. To Improve Product Quality and Focus on Brand Building*

In 2015, the Central Rural Working Conference proposed that supply-side structural reforms of agriculture should be strengthened. The "reducing stock", "lowering costs" and "supplementing the short board" of agricultural products were put on the agenda. "Reducing stocking" is to change the simple quantitative growth model in the traditional model

which takes meeting the "adequate food and clothing" as the goal, taking adapting to demand, leading demand and creating demand as the objective to guide the supply structure focus of agricultural products to transform to adapting to the resource environment and catering to the needs of consumers. And the regional landmark products can lead the market demand. The implementation of the regional landmark brand strategy is an effective way to promote the supply-side structural reform of agriculture, guide and support the cooperation between farm families with the same type and similar quality, specialized cooperatives and production and processing enterprises, integrate the brand resources of agricultural products, and unify register or use trademarks, unify packaging and logo to build regional brand of agricultural products. "Lowering costs" and "supplementing the short board" are inseparable from the scale economies, so Zaozhuang should focus on creating a number of leading enterprises and industrial clusters of large-scale agro-processing and vigorously support the construction projects of leading enterprises in the base development, brand building, product testing and quarantine and technological innovation.

### *E. To Cultivate New Farmers and Promote Technological Innovation*

Technological innovation is the core driving force for transforming agricultural production mode and promoting supply-side structural reform. The innovation and application of agricultural information technology is the information support and technical support for the development of modern agriculture. On the basis of perfecting the construction of rural information infrastructure, the "Internet +" program will be implemented to effectively reconstruct the agricultural industrial chain from the aspects of technology, production, processing and sales to innovate the processing and distribution of agricultural products and establish a new format for the development of modern agriculture.

Technological innovation depends on talent. We must increase the investment in rural human resources and effectively transform the advantage of labor resources into the advantage of human capital. First is to attach importance to the cultivation of new types of professional farmers. The cultivation of new type of professional farmers should adopt the method of "going out" and "inviting in". The government should strengthen employment skills training, introduce free vocational education and training for farmers, and raise their knowledge level of agricultural science and technology and management capabilities. The second is to broaden the channels for agricultural technology promotion, strengthen cooperation with radio and television stations, and use Zaozhuang Agricultural Information Network and Zaozhuang Agricultural Technology Promotion Network to release technical guidance information.

### *F. To Adopt Market-oriented Approach and Broaden the Development Ideas*

Green and efficient modern agriculture is the goal of our reform. We need to reinforce the support for entrepreneurial incubation base and entrepreneurial "DreamWorks" to create



a number of provincial and municipal entrepreneurship Demonstration Park. We can also found agricultural industrial park, develop rural tourism, ethnic customs tourism, leisure agriculture and traditional handicrafts according to market demand and local resource endowment to promote the integrative development of the first, second and third industry in rural areas. Yiyun cupboard tribe in Shanting combines the pastoral landscape and container tourism characteristics as a typical representative of creative agriculture. We should vigorously develop the leisure agriculture and rural tourism in Zaozhuang by taking advantage of carrying out the national, provincial and municipal leisure agriculture and activities of establishing rural tourism demonstrations, actively guide the agricultural leading enterprises such as Nine Summit Lotus Mountain, Shifo Mountain Village, Longzhen Animal Husbandry and Xianghe Dairy, extend forward their own standardized raw material bases and develop eco-leisure agriculture based on sightseeing and picking. At the same time, we should drive the circulation industry and catering industry of rural areas to promote the further integration of the three major industries so as to promote agricultural development by integrative

development and promote supply-side structural reform of agriculture.

## V. CONCLUSION

With the supply-side structural reform of agriculture becoming a research hot spot, the theoretical research results are becoming more and more abundant. With the goal of "reducing inventory, lowering costs and supplementing the short board", combining with the existing problems of agricultural supply side in Zaozhuang City, this article puts forward a feasible way for the supply-side reform of agriculture in Zaozhuang as in "Fig. 3" with the development concept of innovation, coordination, green and open. The feasibility of specific countermeasures and suggestions needs to be tested by practice and continuously improved in practice. In addition, the peasants are the main force in the development of the rural economy. The enthusiasm and initiative of the peasants to participate will actually affect the anticipated effect of the reform. How can we effectively increase the participation of peasants in the reform to make peasants better share the fruits of the reform is another important topic of the practical research made by us.

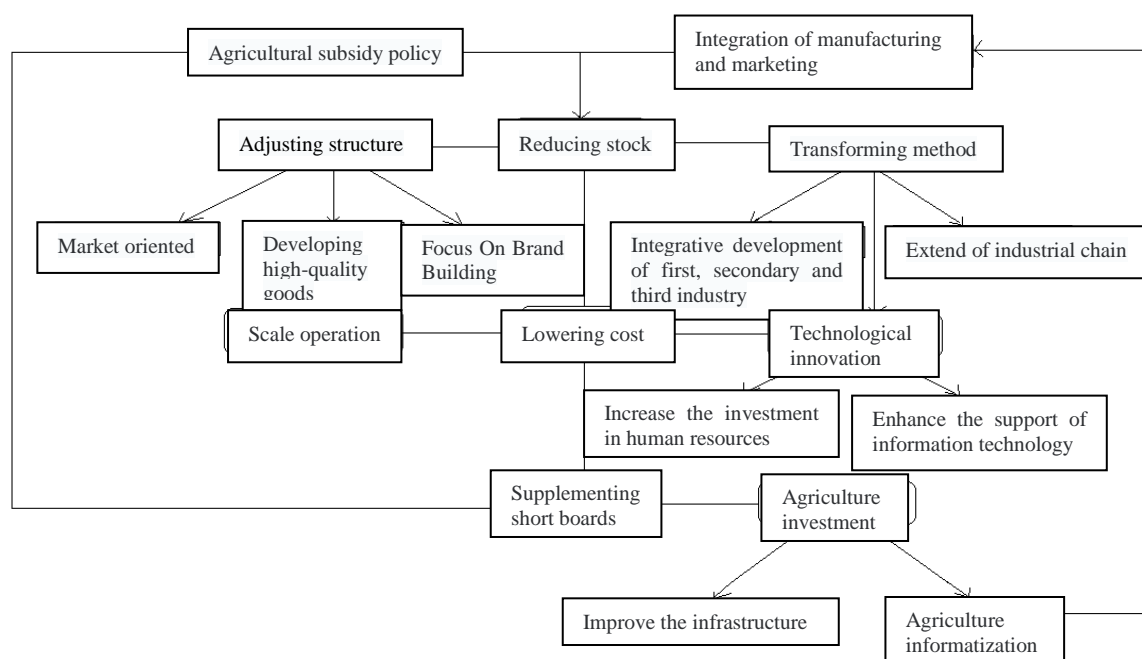


Fig. 3. Feasible path of supply-side structural reform of agriculture.

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