

Research on the Current Status, Paths and Countermeasures of Family Farm Development in China——Investigation and Analysis of Hubei Province

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Abstract The Chinese family farm is the most important new micro subject in the construction and development of modern agriculture in China. The investigation and analysis of the actual situation of Hubei Province showed that since the implementation of the household contract management system in rural areas, the family farm has followed the track of gradual development, breakthrough development and normal standardization development. In order to promote the family farm to develop rapidly, orderly and healthily, work must be well done to land circulation, scale management, financial support, financial subsidy, cultivation of leading talents and professional farmers, and providing all-round services.

Key words Chinese family farm; Hubei Province; Development overview; Typical analysis; Path design

The experience of international modern agriculture development shows that the family farm is the most efficient organization model of agricultural economic development and plays a leading role as the main micro body. Since the 18th National Congress of the Communist Party of China, the central government has not only officially recognized family farms, but also vigorously supported the development of family farms the new agricultural micro management body. According to the central spirit, absorbing international experience and combined with the actual situation, quite a few experts believe that it is the Chinese family farm that needs to be developed in China, and point out that the Chinese family farm is the production and management entity adopting moderate scale management to develop agricultural production by using modernized management means through the way of intensive management based on the contracted land of households as resources extended with legal circulation to get land

resources, which has high specialization, standardization and commercialization levels of production, and significantly higher economic benefits, ecological benefits and social benefits than the local average agricultural production levels^[1].

Research Background

Compared with the traditional "small and sophisticated" family operating entities, Chinese family farms not only have the unique production enthusiasm of family members, but also can proceed with the market operation and standardized management like enterprises. Chinese family farms are a new agricultural production operating and organizing form integrated with the advantages of both farmer household management and business management. In recent years, the Chinese family farm has been steadily developed, and by the end of 2016, there were 877 000 family farms of all varieties, making it become the vital force of agricultural production in China. Among them, 414 000 farms have got

中国式家庭农场发展的现状、路径及对策研究——对湖北省的调查分析

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摘要 中国式家庭农场是我国现代农业建设和发展最重要的新型微观主体。对湖北省实际情况调查分析表明,农村从家庭承包经营制普遍实施开始至今,家庭农场经历了渐进式发展、突破式发展和常态式规范化发展的轨迹。要促进家庭农场进一步快速有序健康发展,必须做好土地流转、规模经营、金融支持、财政补贴、培育领军人才和职业农民、提供全方位服务等工作。

关键词 中国式家庭农场; 湖北省; 发展概述; 典型剖析; 路径设计

Supported by the Social Science Funding Project of Hubei Province (201590).

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Received: September 17, 2017 Accepted: October 30, 2017

基金项目 湖北省社会科学基金项目(201590)。

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收稿日期 2017-09-17

修回日期 2017-10-30

the approval from the Departments of Agriculture, and each planting family farm has an average cultivated land area of 11.33 hm². According to the typical monitoring of the production and management conditions of more than 3 000 family farms by the Ministry of Agriculture in China, the average annual net income of a family farm could reach up to 250 000 Yuan with the per capita net income of nearly 80 000 Yuan, much higher than the income of ordinary peasant households. However, under such favorable environment, there are some problems needing to be understood and dealt with correctly.

Family farm management scale

The development experience of international agricultural modernization shows that the "scale" of agricultural management is an interval concept, which should be adapted to the local conditions of resource endowments and the level of economic and social development. Practice in foreign countries once had misunderstandings to the scale management and implementation. Japan was caught in "the trap of small scale and part-time farming", which could solve the contradiction between production scale and specialization; some Latin American countries mainly relied on market regulation boosted with administrative power, resulting in sharp land annexation, which made a large number of small farmers become impoverished, thereby being caught in the "middle-income trap" with stagnation of development. In China, when promoting the scale management of family farm, some regions thought that the benefits would be higher with larger cultivated land of family farm operation, so they cultivated and supported the family farms of large scale using administrative power, resulting in the overall efficiency decline and benefit loss. Therefore, in-depth study of the moderate scale management of Chinese family farms could not only avoid small scale management, but also prevent the scale becoming too large, making overall plans and all-round considerations to yield and income increase, labor productivity and land output capacity, balance between efficiency and fairness, which are in urgent need in reality.

Family farm management objectives

From the view of historical development, the dominant logic of agricultural modernization in developed countries is to save labor force, while the "double densification of labor and capital" mode in China lays its emphasis on saving land. At present, according to the strategy of urban and rural overall development and the simultaneous development of the four modernizations, we must combine land saving and labor saving organically, and focus on saving labor while saving land. The cultivation and development of Chinese family farm is a new way to realize the two kinds of saving, and promote the modernization of agriculture and the construction of the whole four modernizations.

Conditions for the development of family farms

The rapid urbanization and industrialization in China has brought about the changes of the relative prices of rare elements like labor force, land and agricultural entrepreneurs with management talents, as well as the progress of agricultural technologies like chemical fertilizers, pesticides and agricultural machinery, which lead to the improvement of the production efficiency of agricultural work and the expansion of the division of labor based on specialization, making the current scattered common household management unmatched such kind of development trend. At the same time, the micro conditions for the formation of family farms become more and more mature under the exogenous driving forces of the outward transfer of rural labor, rural land circulation, as well as the popularization of agricultural technologies and agricultural machinery, and the institutional environment is gradually being formed. Therefore, we should view and treat the relationship between agricultural production characteristics and current agricultural environmental conditions changes in a dialectical way, but not only believe that only the "small and sophisticated" family operation is suitable for the characteristics of agriculture^[2]. We should be fully aware that the development of modern agriculture has already created the conditions for

the implementation of appropriate scale operation of peasant families, and the transformation into Chinese family farms.

Development Status Overview and Typical Empirical Analysis

Hubei Province was analyzed in this paper as an example. Similar to the other countries in China, Hubei Province has seen the gradual development of family farms in the popularization of household-responsibility system. As early as in 1997, there were over 20 family farms running mountainous regions with the area of over 67 hm², 575 farms running fruit bases in Jingshan County, Hubei Province^[3]. By 2012, the number of family farms increased to 43 400 throughout the whole province, and the average cultivated land quantity of each family farm is 38 times of that of ordinary farmers with per capita family income 4.7 times higher^[4]. This fully showed that family farms family farms had obvious advantages, but they were not registered, which were still in a natural state of development.

In 2013, after the concept of family farms was proposed by "No.1 Document" of the central government in China, the approval ways and supporting policies for family farms were promulgated in July of the same year in Hubei Province. In 2014, a special fund of 20 million Yuan was arranged in the provincial finance to support family farms, which promoted the rapid development of family farms. So, by the end of 2014, the total number of family farms in Hubei reached 48 400. In 2015, a series of innovative measures were taken in Hubei, which not only focused on increasing quantity, but also paid attention to improving quality, promoting the development of family farms towards normalization and standardization. First, the "533 project" was started in 2015, which aimed to support 1 500 family farms in 3 years in particular, 500 each year. Second, the "plan for training modern youth farmers in Hubei" was started and implemented for 3 continuous years, which focused on providing the supports for expanding industrial scale, strengthening market extension

and enhancing capacity for sustainable development of industry. Third, it aimed to cultivate 300 demonstrative family farms at the provincial level throughout Hubei, and priority was given for the approval of family farms adopting high efficient plant breeding model and green circulating production. By the end of 2016, there were 25 630 family farms registered in the industry and commerce department of Hubei, over 100 000 new professional farmers were cultivated systematically, quite a number of family farms had the net income reach over 100 000 Yuan, and the net income of each family farm increased by at least 50% from that in 2012.

The development track of family farms in Hubei showed the follows: before 2012, it was the period of progressive development of local trial; 2013 and 2014 were the years with breakthrough development with national recognition; 2015 and 2016 were the period of normal standardized development under the guidance of policies, which was typical across China and could be continued sustainably.

Jinzhou City is an important grain producing area in Hubei Province, and even in China, and its resource and economic development level is above-average. It has obvious representativeness both in Hubei and in China. Therefore, Jinzhou City was selected in this paper for typical case analysis. Undergraduate and postgraduate students of Yangtze University were organized to make questionnaire and on-the-spot investigation to over 130 standardized family farms with large scale on the development and operation conditions in 2016, obtaining 75 effective samples, which became the main bases for typical empirical analysis.

Analysis of basic qualities of family farmers

The average age of the 75 family farmers was 40 years old, belonging to the young labor force. They had a certain agricultural production experience and life experience, most of whom were planting and breeding experts. This situation eliminated the drawback of the traditional farming in the past, when the experienced farmers were the householder, making the family farms full of vigor and vitality.

The education conditions of family farmers were as follows: below primary school education of 3, primary school of 2, junior middle school of 14, senior high school and secondary school of 42, junior college and above of 15. Among them, there were 57 farmers with the educational level of senior high school, secondary school, junior college or above, accounting for 76% of the total, which laid the foundation for the family farmers to accept and use modern agricultural science and farming techniques, and an important condition for the family farms to improve the modernized management level.

However, 24% of the surveyed family farmers only had the educational level of junior middle school or below, while only 20% had the educational level of senior college or above. Therefore, it is very important and urgent to cultivate the modern leading talents and professional farmers of family farms.

Analysis on land operation scope, scale and circulation

Scope of operation: among the 75 family farms, 30 farms were of pure planting dominated by rice, 10 were of pure breeding dominated by fishery, and 35 combined planting with breeding, which adhered to the "farming-oriented" principle, ensured the ownership and usage of agricultural land, avoided the "non-agriculturization", "non-food" oriented development of farmland. The direction for the operation was accurately and firmly grasped.

Operation scale: the total land area of the 75 family farms was about 1 140 hm², 15.2 hm² for each farm on average, which was 3.33 hm² larger than the average of 11.87 hm² each in 2012. The number was close to the guiding scale at the national level of 13.33 hm², so it was in the reasonable range, realizing the moderate scale management.

Circulation and transferring: the 75 family farms totally gathered 878.2 hm² of land by means of leasing, transferring, cooperating, exchanging, subcontracting, auction with the average price of 9 900 Yuan/ hm², accounting for over 77% of the total land area. Each family farm had an average of 13.72 hm² of land. And 66 of the 75

family farms signed up the contracts for an average of 10 years. Therefore, land circulation was in normal status. There were also problems in land circulation, such as unreasonable transfer price, blind pursuit of large scale, poor communication between the two sides of the transaction, imperfect coordination mechanism and lack of interest balancing mechanism, which led to frequent disputes and even extreme events. These were the realistic problems that needed to be solved and paid attention to.

Analysis on capital sources, uses and input-output benefits

The survey data showed that there were a variety channels for the capital sources of family farms. Self-raised funds ranked the first, which had 68 households; private lending came the second, 42 households; the third was bank loan, 20 households. Moreover, there were 5 households had the sources from financial support in agriculture, and 5 from external investments. The input-output efficiency showed that the gross annual income of each family farm was 1 006 000 Yuan on average, with a total cost of 473 800 Yuan (including employment cost of 137 200 Yuan, production cost of 338 400 Yuan), net income of 532 300 Yuan, much higher than that of ordinary farmers and leading specialized households.

Although the capital sources of family farms were diversified, the level of capital satisfaction was very low. Among the 75 households, only 10 felt very satisfied, accounting for 13%; 22 showed basic satisfaction, accounting for 29%; 43 households were not satisfied, accounting for more than 57%. Therefore, it is a major issue for the current study to solve the problem of capital demands for the development of family farms at present.

Analysis on manpower and technology input

Survey data showed that the average number of farm workers per household per year was 122, and the per capita daily wage was 115 Yuan. In the total costs of each family farm, the proportion of labor costs accounted for 29%, which was quite high.

In order to have relatively high production efficiency and low labor

trade cost, family farms tended to greatly increase the investment in technology even in the case of capital shortage, improving the level of modernized operation. In terms of the acquisition and use of mechanical equipment alone, among the 75 family farms, 43 of them possessed 184 tractors, 4 for each on average; 40 had 198 units of irrigation machinery, 5 for each on average; 26 had 114 harvesters, 4 for each on average; 40 had 167 carriers, 4 for each on average; 14 had 32 units of field management machinery, 2 for each on average; 26 had 206 units of fishery farming machinery, an average of nearly 8 units for each household; 7 had 32 agricultural product processing machines, 1 for each on average. Moreover, 41 family farms employed agricultural technicians.

Overall, the production efficiency and benefits of the family farms got significantly improved through the labor forces and management of the farms own assisted with employers when using machines to plough, sow, harvest and transport, which showed the characteristics of small and medium-sized Chinese family farms that could meet with the regional conditions, provincial conditions and national conditions in China.

Analysis on product sales

Family farms proceeded commercial production and operation, and the sales of products were mainly reflected in three aspects.

Sales channels

On the whole, the sales channels of products were diversified as follows: 27 farms through company acquisitions, 16 through cooperative sales, 30 through consignment agents, 5 through online electronic platform sales, 4 farms through other channels, and 24 farms through market direct sales. It could infer that most of the family farms achieve the sales of products through middle man, promising with modern merchandise marketing feature, and 24 farms achieved the sales without middle man but through direct market sales. Fluctuating along with market changes, the prices were not stable. And due to the poor negotiation and communication capacity, most of the products were sold in low prices, which, together with the high transac-

tion costs for products transport, made the benefits greatly affected. Therefore, 14 of them strongly complained the lack of sales channels, and 42 farms required government, cooperatives, farmers associations to help expand sales channels.

Product quality

Overall, family farms lacked market competitiveness due to the single operation forms, low products quality, large proportion of primary agricultural products, large number of mass-market products, few high-tech products, which made family farms had no significant advantages over the ordinary farmers.

Brand effect

Because of the high demand of consumers for high quality brand agricultural products, the family farm industry and products could not meet the new consumer demands. Among the 75 family farms, only 21 had brands products, and 54 had no brand, resulting in poor sales of products, increasing inventory or selling at a low price, affecting profitability and income. Thus, 72 family farms had a strong desire to create brands, including 38 farms who were actively planning to improve product awareness, and there were only 3 farms having no such desire.

Paths and Countermeasures for Development and Innovation

Solving the outstanding problems in land circulation

Clearly decomposing land property rights, truly giving the contracted farmers the right of land property income

The decomposition of rural agricultural land property rights should grasp the basic ideas of the following: land ownership belonging to the village collective, contract right belonging to the farmers, and management rights and income rights belonging to the contracted farmers who work the land on their own and the operators who collect the land, respectively. If the contracted farmers transfer the land to other farmers or land stock cooperatives and other enterprises, they will obtain land transfer fee income or

share income of land equity. The clear decomposition of land ownership can become stable in long-term after attaching with legal force through authentic rights, which can make the contracted farmers get the real land property usufructs. In this way, after transferring the land, contracted farmers can not only get the land income, but also can have other incomes through working or starting up business, so as to achieve the goal of increasing income. This is an important way and prerequisite for the contracted farmers to transfer, withdraw from the land, shift to towns and develop family farms.

Firmly grasping the direction of land circulation

It should ensure that the land mainly circulate between farmers, which not only promotes the transformation of innovation for ordinary farmers, but also accelerates the development of family farms. At the same time, it should support the proper land circulation for leading agricultural enterprises, to expand the base construction, carry out cooperative operation with more family farms, and conduct agricultural science-technology demonstration, to meet the needs of raw processing materials. It should also strictly control the land circulation to the countryside investment from cities and towns, so as to ensure the proper agricultural use of agricultural land, avoid and stop any phenomenon of scrambling for land for subsidies.

Reasonably determining the land transfer price, fairly coordinating the interests of both sides of the circulation

Land circulation service institutions at all levels should consult the successful practices at home and abroad to make assessment of land transfer according to the actual conditions, work out regional price base that can balance mutual interests, to be served as references and guidance. The two parties should base on the base price to make agreements on the actual transfer price according to market conditions, land conditions and transfer time. In the meantime, it is necessary to establish corresponding guidance and coordination mechanism, timely and effectively mediate

related disputes and contradictions, and promote the smooth and orderly circulation of land and family farm development.

Respecting and actively guiding the decision-making power of farmers in determining the scale of land management

We should be fully aware that under the condition of market economy, the formation and development of every family farm, as well as its suitable scale, mainly depends on the market and farmers, rather than on administrative recognition, and therefore, the agricultural operation scale in China must respect the decision-making power of farmers and the foundational role of market. However, in terms of policy support, various regions should make multilevel, diversified scale standards and supporting policies for demonstrative farms according to the dominant crops and farm land scale, so as to promote the development of demonstrative farms, and guide and drive the development of local family farms.

Accelerating the cultivation of agricultural elite and professional farmers

First of all, we should train a group of elite talents who are content with farming, able to operate, good at management, and capable to become rich through short-term or long-term training, to make them become the family farmers. At the same time, we should also draw up the policy measures which can keep and attract people to make the high quality youths, who have high educational levels, good quality of mind and body, strong ability to accept and use agricultural science and technologies, innovative and enterprising spirits, and can obtain the market information, and to introduce the social talents like college graduates, veterans who are dedicated to farming to the rural areas engaged in farming. Practical measures should be taken to support them to expand the operation scale, adopt new technologies, open up financing and value-added channels, breed and extend the variety market, making them become

the practical talents, hard cores and basic forces of family farms.

Increasing the support of financial system to family farms

First, it is suggested that while providing diversified fiscal subsidies of different amounts according to different scales, the government should establish agricultural medium and long-term fixed assets investment loans system and the policies related with mortgages of farmers using land, houses, high-value products, and support family farms to conduct farmland infrastructure construction, agricultural machinery acquisition, modern biotechnology application^[6]. At the same time, it should actively explore and encourage guarantee companies to provide financing assurance services for family farms, establish special compensation funds for financial guarantee risks of family farms, and strictly restrain and investigate any behaviors of high charging, casual charging and nonfeasance of the guarantee companies, to ensure the related funds reach the right place smoothly.

Second, it should build up cooperative rural capital credit system in each town (city), construct rural investment and financing credit platform, develop new rural financial services products, achieve the full coverage of agricultural operation agent services, and meet the capital demands of family farms from the depth and breadth.

Third, it should organize industry association led by leading agricultural enterprises, and guide farmer's specialized cooperatives to carry out the mutual financing cooperation among the family farms when the leading enterprises provide loan guarantee and various forms of funds support at the disposal of the localities for family farms.

Building a multi-faceted family farm socialized service system

It should establish a government-led diversified, specialized agricultural service agents, guide and encourage all kinds of agricultural social service organizations to treat family farms as an important service object, provide the socialized services at public wel-

fare as well as the all-round socialized services of production and operation, including improved variety seedling breeding, tractor ploughing, machine planting, machine harvest, machine transportation, pests and diseases prevention and control, soil testing and formulated fertilization, irrigation and drainage, products sales, storage and logistics. In the meantime, it should establish a closely cooperated interactive relationship between the family farms and agricultural socialized service organizations, leading specialized farmers, cooperatives, leading enterprises through the way of making contracts, so as to achieve the "pooling of interests and risks". In addition, the government and society should also construct the risk protection mechanism for family farms, solve a series of problems of low current guarantee level, few coverage varieties and small coverage, to further increase investment, expand the range of varieties, and improve guarantee level.

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Responsible editor: Na LI

Responsible proofreader: Xiaoyan WU

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