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Current Situation and Approaches Relating to Construction of Agricultural Production and Operation Development Capacity for Rural Households in Hubei Province

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Abstract The main body of household operation in the rural household contract responsibility system of our country has developed to the present stage, and has formed the situation that three kinds of rural households coexist, namely, ordinary rural households, major professional households and family farms. The agricultural production and operation of three kinds of household plays an important role in supporting the rapid development of modern agriculture in China. Under the new situation of deepening the rural reform and realizing the goal of well-off society in an all-round way, it is of great practical significance to make a thorough investigation and study on the present situation and approaches relating to the construction of the agricultural production and operation capacity for the three kinds of rural households.

Key words Rural households, Agricultural production and operation development capacity, Analysis of current situation, Construction approaches

1 Introduction

1.1 Research on the connotation of agricultural production and operation development capacity of rural households Existing research results at home and abroad reveal the connotation of development capacity of all households including urban and rural households, which refers to the ability of the family to meet the needs of each family member's life and development by means of the resources it obtains. This capacity includes five aspects: safeguard and support capacity; economic capacity; learning capacity; social communication capacity; risk response capacity. Among them, economic capacity is the basis of other abilities. Economic capacity includes household income level, income source, property and savings, economic burden ratio, Engel coefficient and consumption level^[1]. This paper mainly studies the economic capacity of rural households.

The paper believes that the main content of the rural family's economic capacity is the capacity of agricultural production and operation, that is, the capacity to use the land and its related material means of production, mainly rely on the family labor force to carry out agricultural production and operation activities, and take the income of this kind of activity as the main source of income, to meet the needs of family members' life and development. This capacity is mainly expressed in the quantity, quality and economic benefits of agricultural products produced by rural households^[2].

The basic material factors of agricultural production and operation in rural households are land, labor force and capital, and the

intensive operation level of these basic material factors is influenced by agricultural machinery, agricultural biochemical technology and so on. The operation organization and operation mode are the factors that affect the efficiency and benefit of agricultural production^[3]. The degree and utility of the comprehensive application of all these factors determines the agricultural production and operation capacity of the rural family and the level of the income and consumption of the rural family as well as the level of property and savings, the ratio of economic burden and the Engel coefficient. Therefore, under the new situation of deepening the rural reform in an all-round way and realizing the goal of building a well-off society in the countryside, to investigate and analyze the current situation of the construction of the agricultural production and operation capacity in the countryside and to put forward the ways to further promote such capacity, is an important basic supporting problem to be solved for the rapid development of modern agriculture in our country.

1.2 Carrier research on the capacity construction of agricultural production and operation of rural households After the reform and opening up, the household contract responsibility system, initiated by Xiaogang Village which was lifted from poverty overnight and but failed to become rich in 30 years, has shown tremendous vitality and made important contribution to solving the problems of food and clothing for the Chinese people. However, because of the limitations of small-scale peasant economy and the limitations of its potentiality, the construction of agricultural production and operation capacity of rural households encounters serious obstacles, and the development of modern agriculture is seriously challenged. Therefore, it is imperative to solve the traditional problem of small-scale peasant economy in the household contract responsibility system under the new situation.

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In view of the actual situation, in the documents of the Third Plenary Session of the 18th National Congress of the Communist Party of China and the Third Plenary Session of the 18th Central Committee of the Communist Party of China, the Party Central Committee clearly put forward the policy of "adhering to the position of rural households as the main body of operation", while actively "constructing the new agricultural operation system and cultivating the new main body of operation". For the new type of agricultural operation entities, the scale of operation is large and moderate, the income level is higher, and the degree of intensification, specialization, marketization and socialization is higher. At present, the main body of new-type agricultural operation includes major professional households, family farms, farmers' cooperatives, leading enterprises of agricultural industrialization and so on. The major professional households and family farms are operated by the rural households, and they are in the prominent position of basic main body in modern agricultural production and operation, and should be vigorously developed.

In particular, it is worth noting that in 2014, the Ministry of Agriculture made it clear in *Guidance for the Development of Family Farms* that for quite a long period of time, ordinary rural households (*i. e.* rural households with small scale of production and operation) are the basis of agricultural production and operation, and the status and role of ordinary rural households cannot be ignored while developing major professional households and family farms^[4]. Therefore, at present, the main body of agricultural production and operation in rural households is composed of three kinds of rural households, namely, ordinary rural households, major professional households and family farms, and the three kinds of rural households are the main capacity construction carriers of the development of agricultural production and operation of rural households.

2 Analysis on the current situation of agricultural production and operation capacity construction of rural households

The paper chooses Hubei Province, which is located in the middle part of our country, as a typical case, and organized the undergraduates and graduate students from School of Economics of Yangtze University, made a questionnaire survey on the construction of agricultural production and operation capacity of three kinds of rural households in the whole province in 2017. A total of 580 questionnaires were sent out, 486 were collected, and 400 valid samples were obtained after screening and sorting out, of which 170 were from ordinary rural households, 105 from major professional households and 125 from family farms. The sample is distributed in 24 counties, cities and districts of the whole province. It has certain universality and conspicuous representativeness, and the obtained data and situation are authentic and reliable. On this basis, I organized the undergraduates and postgraduates who participated in the study, to conduct a field-verified survey of typical ordinary rural households, major professional households and

family farms in Jianli County, Honghu City, Shayang County of Jingmen City, Xiangzhou District of Xiangyang City, Suixian County of Suizhou City, interviewed relevant government administration departments, and obtained rich first-hand and second-hand information. Based on the data and verification of 400 pieces of three kinds of rural household samples and other related materials, this paper analyzes the current situation of agricultural production and operation capacity construction of three kinds of rural households.

2.1 Analysis of the current situation of the basic quality of the persons responsible for agricultural production and operation of three kinds of rural households

According to the data and validation of the 400 sample rural households, the age of persons in charge in ordinary rural households, major professional households and the heads of the family farms is between 39 and 42 years old. They are mainly male young adults, accounting for 82%, 79% and 84%, respectively. Women also account for a certain proportion. To a certain extent, it has changed the situation of the old peasants over 50 years old as the head of the household, formed a new supporting subject, and injected new vitality into the construction and development of the agricultural production and operation capacity of rural households.

In terms of educational attainment, of the 400 heads of household, 16 are at or below primary school level, accounting for 4% of the total; 246 at or above high school level, accounting for 61.5%, of which 63 with education of college and above, accounting for 16%. It can be seen that the leading power of household's agricultural production and operation is mainly in the hands of people with medium and high educational level, which is beneficial to promoting the application of agricultural science and technology, adopting modern operation mode and implementing market-oriented operation, reducing the degree of dependence and destruction on natural resources, and promoting the efficiency and benefit of agricultural production factors.

2.2 Analysis on the current situation of capacity construction of scale land operation of three kinds of rural households

In agricultural production and operation, whether it is the use of capital or the application of mechanical equipment and biochemistry technology, it is necessary to have a certain scale of land as the carrier, so as to realize the replacement of the traditional and backward factors with the new factors of production, improve the efficiency of the use of modern agricultural factors of production and produce scale effect.

According to the survey data of 400 sample households, the average land operation area per household is 1.32 ha for 170 ordinary rural households, 9.71 ha for 105 professional households and 16.93 ha for 125 family farms.

In ordinary rural households, except for two households of 3.33 ha, the rest are below 3.33 ha. By comparison, the scale of land owned by ordinary rural households is small, but it is expanding compared with previous years. The average operating area of land from 2009 to 2011 was 0.51 ha, which was collected from the

sample survey of 103 households in Hubei Province in 2012. In 2013, an average of 0.55 ha was obtained from a sample survey of 202 ordinary rural households in Hubei Province. Of the 170 valid samples obtained in the survey, the average was 1.32 ha. It can be seen that after the 18th National Congress of the Communist Party of China, the scale of land operation of ordinary rural households is constantly expanding, and their capacity of land scale operation is constantly improving.

Except for one major professional household of 100 ha, the rest rarely had more than 33.33 ha, most in 6.67 ha or so. Four family farms had operating area of land of over 66.67 ha. If these four super-large family farms are excluded, the average operating area of land for the family farms is 12.02 ha. The Ministry of Agriculture announced that the average size of China's family farms in 2012 was 13.35 ha. In the same year, Hubei Province announced that the average size of family farms was 11.87 ha, and the average appropriate size of family farms introduced by the Ministry of Agriculture was 13.33 ha. Obviously, the data of the family farms investigated by the author accord with the actual situation, and basically coincide with the guidance standard of moderate scale operation.

The majority of major professional households and family farms can control the scale of land operation within a moderate range, which mainly depends on the operation concept and practical experience of the head of the household. In the interview, most heads of households indicated their reluctance to hire long-term workers, and their willingness to rely mainly on family laborers for agricultural production and operation, thereby ensuring the income of agricultural production and operation in the form of substantially reduced labor costs. Therefore, based on the basis and conditions of the family, the head of the household will not pursue the excessive scale development of the land artificially, but will control the scale of the land operation as far as possible within the scope of the family operation capacity, and will be more economically rational and market-oriented in the allocation of land, labor and other factors.

2.3 Analysis on the current situation of the construction of modern agricultural science and technology application capacity of three kinds of rural households In the process of accelerating agricultural modernization, the governments at all levels and the three kinds of households in Hubei Province attach great importance to the application of agricultural machinery technology and biochemical technology. Data released by the Ministry of Agriculture show that in the first half of 2016, the comprehensive mechanization level of the main crops in Hubei reached 65%, 3.5 percentage points higher than the national average. According to the data of 400 effective samples, the enthusiasm and capacity of purchasing and applying modern agricultural science and technology are revealed in three kinds of households. In the aspect of purchasing and owning of agricultural machinery, the paper investigates and designs eight kinds of machinery, including tractor, drainage and irrigation machine, harvester, field operation ma-

chine, forest fruit machine, breeding machine, agricultural product processing machine and conveyor. In terms of the average number of machines owned by each household, it is three for ordinary rural households, six for major professional households and eight for family farms. In terms of hiring agricultural technicians, ordinary rural households account for 22.4%, major professional households account for 15.24%, and family farms account for 50%. In cooperation with agro-technical units, ordinary rural households account for 38%, major professional households account for 39%, and family farms account for 71.2%. Farmers employ agricultural technicians and cooperate with agricultural technical units to provide on-site training and guidance in the cultivation and operation of rice, wheat, maize and other crops and in the scientific use of pesticides and fertilizers, in addition to obtaining some agricultural machinery services.

The above data and interviews show that the capacity of applying modern science and technology in three kinds of rural households has been improved obviously through construction, which has changed the traditional mode of production and operation to a certain extent, and the modern mode of production and operation has been adopted. In particular, the family farm has shown outstanding advantages, and plays a leading and new force role.

2.4 Analysis on the current situation of the capacity construction of financing and capital-intensive operation of three kinds of rural households In recent years, the lack of funds for the development of agricultural production and operation capacity construction of the three rural households has become a hot social issue that has attracted general attention. From the actual situation of the survey, the Hubei Provincial Government has made corresponding efforts to solve this problem. In the first half of 2016, the province used 350 million yuan of subsidies for purchasing agricultural machines, accounting for 51.5% of the initial funds allocated, subsidized 44 000 different types of agricultural machinery and tools, effectively stimulated the household investment of 900 million yuan, benefiting 34 000 households, which produced a good practical effect. However, due to the lack of fixed assets in rural households or the difficulty in mortgage assessment of fixed assets and other factors, in the case of the relaxation of the state policy, banks and other financial institutions are still not assured to lend to farmers.

According to the survey of 400 sample rural households, the main source of funding for households in 2017 was self-financing, 64% for ordinary rural households, 58% for major professional households and 54% for family farms. In addition to self-financing, the second major source is private borrowing, 26% for ordinary rural households, 29% for major professional households and 22.8% for family farms. Farmers receive very little financial support from banks, with 36 households of three types, accounting for only 9%. This situation seriously hinders the improvement of rural households' capital-intensive operation and development capacity construction level.

2.5 Analysis on the effect of construction of the agricultural production and operation capacity of three kinds of rural households The improvement of rural households' agricultural production and operation development capacity has brought about higher labor productivity, stronger profitability and higher income level.

Data from the survey of 400 sample rural households show that: in 2017, the average household income was 96 100 yuan for ordinary rural households, 354 000 yuan for major professional households and 861 000 yuan for family farms; the average net income was 44 300 yuan for ordinary rural households, 192 500 yuan for major professional households and 446 900 yuan for family farms; the average net income of family members was 14 700 yuan for ordinary rural households, 64 200 yuan for major professional households and 149 000 yuan for 149 000 yuan. These data show that the construction of agricultural production and operation capacity of the three kinds of rural households is effective, and the average net income of the rural households has reached tens of thousands yuan, stepping into the road of raising the level of capacity construction of households' agricultural production and development to become rich. Major professional households and family farms, especially family farms, have a prominent leading advantage.

3 Study on the ways to build the capacity of agricultural production and operation in rural households

Wu Fan and Li Jianmin put forward two basic approaches to the capacity construction of all households, including rural households: one is the capacity construction of the family itself, including the emotional bond and interaction of family members, human capital investment, career development capacity of "bread buyer", social capital investment, family division of labor and family resource allocation optimization; the other is the support of social environment, including the social security system, social welfare system and public services^[1]. The paper takes this kind of research achievement as the enlightenment, considers the actual situation of the survey, combines the rural households' capacity construction and the social environment support, puts forward the following suggestions for the construction of agricultural production and operation development capacity of the rural households under the new situation.

3.1 Grasping the characteristics of agricultural operation and the overall trend of development capacity construction of three kinds of rural households At the present stage, the number of ordinary rural households is in the overwhelming majority, which is characterized by the interwoven use of traditional and modern operation methods, and the traditional feature is stronger than that of the other two main bodies^[5]. On the one hand, ordinary rural households should not be ignored, and we should continue to provide effective support and services to improve the ability of agricultural production and operation and better fulfill the task of producing most agricultural products; on the other hand,

we should accelerate its transformation and innovation, promote its differentiation and transformation to the two directions of towns and family farms, and continue to play its basic supporting role in the development of urbanization, family farms and modern agriculture.

Major professional households are new type of agricultural micro-business entity with the characteristics of instability and transition, which are between the ordinary rural households and the family farms. It is necessary to guide them to overcome the disadvantages of unstable operation scale, under-standardized management, and arbitrary production and operation, and to encourage them to continue to develop and transform into family farms while stabilizing and perfecting specialized production and operation.

Family farm is a new type of operation subject which exists at present and occupies the main position in modern agriculture in the future. It is the direction and goal of the development and evolution of ordinary rural households and major professional households. It is important to develop and cultivate it as soon as possible, so that it will become a new form of agricultural production and operation with unique production enthusiasm of family members, and carry out enterprise-style market operation and standardized operation. It is a new form of agricultural production and management organization with dual advantages, and has become the major force of modern agricultural development^[6]. At present, it is necessary to improve the quality and capacity of the producers and operators of family farms and the application degree and effect of modern science and technology, so as to make them adapt to the requirements of the existing moderate scale operation as soon as possible, to improve the economic benefits in all directions, and to really play a demonstrative and leading role for the ordinary rural households and major professional households.

3.2 Orderly, steadily and actively promoting rural household land circulation and moderate scale operation Modern agriculture is based on scale, without which there is no benefit. According to the research of the United Nations Food and Agriculture Organization (FAO), only when the area of cash crops is no less than 11.33 ha and the area of food crops is no less than 20 ha can the scale of agricultural operation become internationally competitive. The orderly transfer of land is an effective way to realize the moderate scale operation of rural households and improve their competitiveness. In response to the problems found in the survey, it is suggested that we should do a good job in two aspects: firstly, we should accurately grasp the direction of rural land circulation, and it is necessary to cultivate and upgrade the capacity of ordinary rural households, major professional households and family farms to accept land transfers, so that the land can be transferred mainly among rural households, so as to change the state of small-scale and scattered operation of ordinary rural households, promote the rapid development of major professional households and family farms, and promote the moderate scale operation of land; secondly, farmers' professional cooperatives and agricultural leading enterprises and other non-rural households should carry out various forms of joint operation with rural households, handle well

the relationship of interest distribution in the joint operation, lead and drive the rural households to expand the scale of land operation and improve the operating income.

3.3 Opening up a variety of channels to foster professional farmers and elite leaders for rural households

This aspect is mainly to carry out the hierarchical systematic training to the heads of rural households and the labor force. Firstly, it is necessary to make full use of agricultural colleges and universities to set up higher-level training bases in the provincial capital. From the aspects of the application of modern agricultural science and technology, the management of modern enterprises, the operation of modern market and so on, it is necessary to combine theory with practice closely, train high-level rural family leaders with vision, and create conditions for realizing the high level operation of rural households' agricultural production and management modernization. Secondly, it is necessary to make full use of the existing agricultural vocational schools and schools with agriculture-related majors in the cities, municipalities and prefectures to set up medium-level training bases in order to train backbone talents who can master and apply modern agricultural practical techniques for rural households. Thirdly, in villages, towns, counties and urban areas, training courses on practical techniques and practical management experience should be held on a relatively stable basis, on a regular or irregular basis, and on a long-term or short-term basis. Practical training should be conducted for the rural family labor force, and we should invite all levels of agricultural technology, agricultural machinery, agricultural management personnel and heads of rural households and capable people who have achieved remarkable results in agricultural production and management to give lectures, and use their home production site as the experimental operating base to enable them to learn knowledge and skills. The method can be used right now and produce immediate effect.

3.4 Solving the problem of financial bottleneck of rural households effectively

Firstly, it is necessary to implement as soon as possible the right in rem and property rights of rural households' land, houses, shares, high-value goods and products, and offer the relevant certificates in order to implement mortgages. Secondly, it is suggested that the relevant government departments and banks jointly organize a perennial investigation group to find out the actual capital demand, solvency, trust degree and bank lending capacity of rural households, and to solve this problem through consultation with pertinence, accuracy and timeliness. Thirdly, it is necessary to regulate the industry behavior of newly established guarantee companies in various localities, formulate professional ethics standards for the industry, strictly investigate and punish excessive collection of guaranty fees and illegal collection of kickbacks, so as to ensure the efficiency and safety of loans to rural households. At the same time, it is also suggested to construct cooperative rural capital credit service system with county (city) area as unit, innovate rural financial organization, build

rural investment and financing credit platform, develop new rural financial service products, realize the full coverage of services for rural household business entities, and satisfy its fund demand from depth and breadth.

3.5 Giving full play to the guidance and service role of government and social organizations

Firstly, the government should adjust and improve the agricultural subsidies for rural households. From the survey, it is found that since 2016, the reform of "three subsidies" for agriculture in Hubei Province has been pushed forward in an all-round way. The subsidy for improved crop varieties, the direct subsidy for grain farmers and the comprehensive subsidy for agricultural materials have been merged into a protection subsidy for agriculture. The policy objective has been adjusted to mainly supporting the protection of cultivated land and the moderate scale operation of food for rural households^[7]. This practice can be used for reference by other areas. Secondly, subsidies should be given to rural households for inflow of land and for quality and safety certification, so as to promote large-scale and standardized production. Thirdly, the government and agriculture-related enterprises and other social forces should be organically combined to establish and innovate agricultural technology, agricultural machinery, agricultural trade and other institutions and projects to meet the needs of rural households in the services of production, processing and marketing. Fourthly, the agricultural insurance system should be further innovated and perfected. Insurance companies should design more types of agricultural insurance that enable rural households to respond effectively to market and natural risks. The government should increase the subsidy standard of agricultural insurance premium, establish the mechanism of joint investment at all levels of finance, and relieve the worries of agricultural production and operation for rural households.

References

- [1] WU F, LI JM. Policy approaches to development capacity of family[J]. Population Research, 2012, 36(4): 37–44. (in Chinese).
- [2] LIU MS. On family function and its transition[J]. Hunan Social Sciences, 2001, 14(2): 30–34. (in Chinese).
- [3] SHI ZL. Rural family endowment, the labor backflow and its capacity building[J]. Chongqing Social Sciences, 2013, 31(5): 44–51. (in Chinese).
- [4] China Agricultural Means of Production. Some guidelines on promoting the development of family farm by the Ministry of Agriculture[J]. China Agricultural Means of Production, 2014(8): 31–35. (in Chinese).
- [5] CHEN FX, WANG DC. Agriculture modernization development mechanism and path selection, based on the Household's small-scale operating: with rice production in Heilongjiang Province as an example[J]. Ecological Economy, 2011, 27(2): 89–93, 105. (in Chinese).
- [6] YANG CL, QU SH. Dynamic formation and operation mechanism of Chinese family farm[J]. Reform, 2013, 26(9): 82–89. (in Chinese).
- [7] LENG QP, FAN F, HE PM. Family farm financing: A survey based on Hubei Province[J]. Finance and Accounting Monthly, 2015, 36(8): 109–112. (in Chinese).