

# On the SWOT Analysis and Countermeasures of the Development of Family Farms in Underdeveloped Hilly Areas in Western China

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## Abstract

*In the development of family farms, the mode of agricultural production can be transformed and the new subject of operation can be cultivated, which is an inevitable path to the implementation of agricultural modernization and an important measure of promoting peasants' poverty alleviation in China. The practical development of family farms in Xichong County, Sichuan Province is taken as an example in this paper, in which SWOT analysis method is adopted and empirical survey is integrated. Furthermore, the internal and external factors restricting the development of family farms in underdeveloped hilly areas in Western China are analyzed meticulously, and countermeasures of developing family farms in these areas are proposed.*

**Key Words:** underdeveloped hilly areas in Western China; family farm; SWOT analysis method; development countermeasures

## 1 Introduction

As a new subject of agricultural operation, family farm is a pattern of agricultural development <sup>[1]</sup> which considers family members as the primary labor force and utilizes family-contracted or circulated land in large-scale, intensified and commercialized agricultural production and operation, and takes agricultural income as the main income source of a family. Furthermore, it is the development direction and decisive subject of moderate scale operation of farmlands in China in the near future. The cultivation and

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② Funds: staged achievements of approved funding project (CJF15060) by Sichuan Center for Education Development Research; one of the achievements of 2015 Scientific and Technological Innovation Project (427333) by China West Normal University.

development of family farms can further promote the optimized allocation of farmland resource, arouse peasants' enthusiasm for production, popularize new agricultural science and technology, guarantee the safety of agricultural products and facilitate peasants' increased income and the stability of villages. In recent years, the development of family farms in Songjiang Shanghai, Wuhan Hubei, Yanbian Jilin, Ningbo Zhejiang and Langxi Anhui has attracted extensive attention from the academic circle. Zhaokun et al. (2015) [2], Lv Huiming et al. (2015) [3], Chen Dingyang et al. (2015) [4], and Song Kebin et al. [5] have conducted research on the development of family farms in Songjiang Shanghai, Ningbo Zhejiang, Langxi Anhui and Yanbian Jilin respectively. Generally speaking, domestic experts and scholars have conducted rewarding exploration on the development of family farms from different perspectives and dimensionalities. Specifically speaking, there are quite a few research on the development of family farms in economically developed regions in Eastern and Middle China, but relatively less research on the economically underdeveloped regions in Western China. Therefore, Xichong County, a representative and important agricultural county in hilly areas in Sichuan, is taken as an example in this paper, in which the countermeasures of developing family farms in the underdeveloped hilly areas in Western China are discussed.

## **2. SWOT Analysis of Factors Influencing the Development of Family Farms**

### **2.1 Strengths**

#### **2.1.1 Exceptional national conditions**

Located in the subtropical humid monsoon climate region, Xichong County demonstrates four distinctive seasons, moderate climate, adequate illumination and rainfall, 41.7% forest coverage and limited contamination on the gas, water resource and soil, etc. The exceptional regional advantages are suitable for the development of characteristic organic agriculture. Hence, a batch of agricultural products which bear distinctive regional characteristics, have enjoyed great prestige nationwide. "Chong Guo Peach", "Xifeng Navel Orange", "Xichong Yellow Sweet Pepper" and "Xichong Two-twig Pepper" have been certified as a national geographical indication. Organic agricultural products, such as "Fengyuan Egg", "Milk Pig", "Selenium-enriched Pig", "Sunflower Chicken" and "Guangfeng Vegetable" have already found a good sale in China and foreign countries. Xichong County has also been awarded the first batch of "State Organic Product Demonstrative Establishment County" and "Organic Agricultural Products Production Base County".

#### **2.1.2 Flexible operation pattern**

Located in the northeastern part of Sichuan Basin, and the ridge of Jialing River and Fujiang River, Xichong County is in possession of vertically and horizontally elevated ravines, densely covered shallow mounds and adequate fresh water resource. They have provided conditions for the development of characteristic stereoscopic agriculture that's integrated with plantation and cultivation in family farms. Hence, the operation pattern of "family farm + cooperative" has emerged at the right moment, and compound operation modes, such as "grain crop + cultivation (aquatic products or livestock)" and "commercial crop + cultivation (aquatic products or livestock)", have emerged in large numbers. It is suggested by the statistical data of the county-level Agriculture and Animal Husbandry Bureau that up to October 2015, 124 of the 266 family

farms registered under the Industrial and Commercial Bureau have adopted the industrial pattern of plantation-cultivation integration, covering approximately 46.6% of the total number of family farms. The profitable pattern of integrating plantation with cultivation has substantively promoted agricultural development and boosted peasants' income.

### **2.1.3 All-directional road network**

“Road-repairing comes before fortune-accumulation” has become the golden rule of regional economic development. Having been deeply aware of this, the county-level government has increased the capital investment in transportation construction with the territory, and implemented comprehensive transportation promotion engineering. During the “12<sup>th</sup> Five-year Plan”, 12 county roads (215.1km) and 36 village roads (219.6km) have been newly constructed or renovated. Passage among the villages has been implemented throughout the county, and “half-an-hour economic circle” has been constructed within the territory. Meanwhile, Mianxi Expressway, Xishunjia Fast Channel, Banan Railway, Miannan Inter-City Railway and Northeast Sichuan General Aviation Base have passed through and settled in Xichong, which has preliminarily formed a developed road network of “two rings, two radiations, three horizontal and four vertical lines”, which integrates superior and inferior stems, links up the internal and external areas, and the urban and rural areas. It has injected a “cardiac stimulant” to the agricultural development.

## **2.2 Weaknesses**

### **2.2.1 Difficulty in fund raising**

According to family farmers, the initial capital of their farms mostly comes from the private ‘relationship-oriented debit and credit’ (circulating necessary funds through genetic connections and geographical relationships) <sup>[7]</sup> and bank-based financial departments. After the joint-stock system reform, the share that serves the ‘issues of agriculture, farmer and rural area’ has gradually shrank in the market. Although there’s a national policy of acquiring mortgage loan through land management right, no bank in the county has executed this. Petty loan is an utterly inadequate method in alleviating this severe situation; non-governmental loan, which has a high interest rate and risk, is even involved with adverse force in the society. Hence, family farmers are all afraid to take out loans without careful consideration. The difficulty in fund raising has restricted the development of family farms.

### **2.2.2 Poor quality of operation subject**

The quality of peasant, which is the subject of agricultural production, directly restricts the development level of family farms. According to surveys, agricultural operators throughout the county are mostly middle and old-age population, whose highest education background is elementary and secondary school. The relatively poor quality of operators and managers, the rough modes of production operation, the deficient access to market information and “blind conformity” in production operation have severely obstructed the sound development of family farms.

### **2.2.3 Twisted labor force structure**

Under the influence of urbanization, the “agriculture-centered thinking” held by the peasants has been increasingly weakened. A large number of young adults in the county have successively pursued employment in non-agriculture industries and towns. The number of peasants willing to be engaged in agricultural production and learn labor techniques has been decreasing. The phenomenon of aging peasants, by-business in agriculture and rural hollowing has become increasingly severe. Consequently, a dilemma of “deficiency in strong adults” and “deficiency in labor force” has emerged in the village. The deficiency of the main body and successive force of agricultural production, as well as the restricted potential of development, have severely constrained the development of large-scale intensive agricultural development.

## **2.3 Opportunities**

### **2.3.1 The government has issued supportive policies and promoted the development of family farms**

The county-level government has meticulously implemented the requirement of the national and provincial government about cultivating and developing family farms, energetically brought in social capital and managerial experience, and issued farmers-benefiting policies in treasure, credit, revenue, land utilization, finance and insurance, which has laid a solid policy guarantee for the development of family farms. Meanwhile, it has positively constructed the new pattern of agricultural operation, which takes farmers’ specialized cooperatives as the bond, family farmlands (for example, major plantation and cultivation households) as the backbone, and leading enterprises as the support, hoping to guide the rapid and sound development of family farms.

### **2.3.2 Seriously desolated rural land accelerates the generation of large-scale agriculture**

At present, the cultivated land per capita is  $0.067\text{hm}^2$  for peasant households throughout the county, which is much lower than the average level in China. Each household undertakes three to five plots, which leads to seriously segmented and scattered lands. It is suggested by the statistical yearbook of the county that the export of labor service is 185,000 people in 2014, which covers 36% of the agricultural population. There are two immigrant workers in each household on average. Consequently, the trend of by-business in agriculture and rural hollowing has been increasingly intensified, and extensive agricultural operation has been serious. In addition, a large number of agricultural lands has been desolated, and such desolation covers approximately 30% and 50% respectively in general farmlands and individual towns and villages. Therefore, accelerating land circulation and implementing large-scale operation has become extremely urgent.

### **2.3.3 Develop farmlands and manufacture superior food**

Since “food is the paramount necessity to people”, the quality and safety of agricultural products, which is bounded up with the national welfare and people’s livelihood, has attracted extensive attention in public. It is suggested by the data of “2010 Global Happiness Survey” that it is believed by 88% Chinese citizens that food safety, which has been quite upsetting, is the cause for the relative low happiness index among the public<sup>[8]</sup>. Therefore, the willingness of consuming green organic agricultural products has been gradually strengthened, and the market demand has also been expanding. The county-level government has targeted at this opportunity and taken advantage of this opportunity by energetically cultivating family farms.

Furthermore, it has maintained a rigorous standard in the source of agricultural inputs, the production process, product quality and sincere operation, hoping to guarantee that the organic agricultural products can meet the certification standard of “pollution-free agricultural products, green food, organic food and geographical indication of agricultural products”, and promote large-scale, intensified, standardized, and information, market and brand-oriented agricultural production.

## **2.4 Threats**

### **2.4.1 Peasants’ serious land complex leads to low efficiency of land circulation**

Due to peasants’ intensified land complex and the imperfect social security system in the villages, peasants’ dependency on lands has been solidified. Small peasant ideology has been so deeply rooted that these peasants are reluctant to circulate land. Meanwhile, it is impossible for non-agricultural employment to provide long-term stable rational expectations and potential appreciation of contractual right of land. Consequently, peasants are even more reluctant to circulate land in the long term. According to statistics, the total scale of circulated land is 156,000 mu throughout the county in 2015, covering only 26.9% of the total contracted land, which is lower than the average level of China. The rate of land circulation is relatively low.

### **2.4.2 Non-standardized circulation behaviors restrict the development of family farms**

Standardized land circulation is the prerequisite for the development of family farms. At present, land circulation in the county is still focused on spontaneous, small-scale and short-term circulation. Moreover, there are too many oral agreements and very few written contracts during the circulation, or the written contracts are extremely non-standardized. Consequently, disputes emerge frequently and continuously during the development of family farms and agricultural production.

### **2.4.3 Imperfect socialized service system influences the rapid development of family farms**

According to the findings of surveys, the socialized service system for the development of family farms is imperfect, and the market which supplies agricultural means of production, such as chemical fertilizer, pesticide, fine breed and fodder, is in chaos in the county; production guidance service is deficient, information service is dislocated in the market, the supply-demand structure is imbalanced, and it is difficult to promote advanced agricultural technology and superior varieties; under the frequent occurrence of natural disasters, pestilences and insect attacks, single policy-based agricultural insurance, finite varieties of crops covered by insurance and relatively low rate of compensation have restricted peasants’ enthusiasm about insurance; it’s difficult for the traditional marketing patterns of distributed selling and direct selling by manufacturers to satisfy the demands of family farms in large-scale specialized production.

## **3 Strategic Options of Developing Family Farms in Underdeveloped Hilly Areas in Western China**

### **3.1 Emancipate mind, enhance cognition and promote development**

Firstly, reinforce publicity and enhance cognition. The development of family farms, which is highly extensive and strongly policy-based, is bounded up with the overall reform, development and stability of villages. Hence, leaders of all levels must attach much importance to this, reinforce publicity, unify ideology, intensify understanding and create a favorable atmosphere, in which land circulation can be facilitated and

family farms can be developed. By achieving these, the people can thoroughly realize the importance of promoting land circulation and cultivating family farms in underdeveloped hilly areas in Western China, maintain the consistency among ideology, concept and knowledge, and energetically devote themselves to land circulation and the development of family farms. Secondly, reform and perfect the household registration and social security system, and alleviate peasants' worries back at home. The new household registration system should be established as soon as possible, the urban-rural barriers must be eliminated and a perfect insurance system for the rural society must be constructed, especially the systems regarding education, medical treatment, social employment, basic cost of living allowances and endowment insurance that are suitable for the villages. Moreover, the function of farmlands in social security should be gradually weakened, peasants' affection towards farmlands should be reduced, and their enthusiasm about land circulation should be aroused. Secondly, the behaviors of land circulation should be regulated, and the hidden dangers in the development of family farms should be eliminated. Family property accumulated over the past years must be organized as soon as possible, and the registration and certificate-issuing regarding the contracting and operating right of farmlands should be completed, and land property right must be further refined and clarified. In addition, a perfect platform of rural equity transaction and public services should be established and perfected, the contracts on land circulation should be regulated, written agreements on land circulation should be concluded and signed, and the form, state, term, price, mode of payment, risk guarantee, as well as both parties' rights, obligations and liabilities for contract-breaching in land circulation should be clarified. Thus, contract disputes can be reduced, both parties' legitimate interest in land circulation can be maintained, and a certain premise and foundation for the development of family farms can be established.

### **3.2 Cultivate the subject of credit extension and renovate the mode of financing**

Capital is the force driving the development of family farms. First of all, the ownership reform should be energetically promoted in villages, which can crack the difficulty in fund-raising. The county-level government should implement *Opinions on Implementing Experimental Work of Property Mortgage Financing in Villages*, which was issued by the provincial government. By taking the first batch of experimental work in mortgage loan with the "two rights" as the opportunity, the county-level government should energetically guide financial institutions to provide services regarding mortgage loan with the "two rights". Upon relying on the property right in the villages, it should activate elements of property rights, actively promote mortgage financing with collective forestry property right and land operation right, and steadily carry out experimental units of house-ownership mortgage financing in villages. Secondly, it should broaden the channels of financing. "Trade-based debit and credit" and "relationship-based debit and credit" have become contracted, standardized and institutionalized. On this basis, the pattern of "agricultural resource operation cooperative", "internally installed rural finance" and "mortgage financing with agricultural land in Ningxia Tongxin County" should be used for reference, and the mode of private lending should be renovated, the financing potential of agriculture-involved capital should be reinforced.

### **3.3 Reinforce market supervision and perfect service system**

The county-level government should intensify the supervision of the market of agricultural materials, provide service of market information, and formulate reasonable production supply plans in accordance with the market demands in recent years. In addition, the supply of agricultural materials, such as chemical fertilizer, pesticide, fine breed and fodder should be guaranteed in the market, and the sales of forged and fake commodities must be severely cracked down. An integrated socialized agricultural service system should be established before, during and after the production, which can provide family farmers with socialized services, such as promotion of agricultural techniques, introduction of fine breeds, disease prevention and control for animals and plants, quality inspection, replacement of farming, cultivation and harvesting, plant disease and insect pest prevention, unified fertilizer distribution and application, centered seed and sprout cultivation, irrigation, drainage and preservation and freshness storage, etc. Furthermore, agricultural production should be more mechanized, information-oriented and ecological, and the cooperation with academies of agricultural sciences and higher institutions on agriculture should be further intensified, and the integration of scientific research and social demands should be realized. The insurance system should be perfected, the variety of insurance should be increased, the rate of compensation should be properly raised and the coverage of insurance should be expanded. For instance, such characteristic agricultural products as Xifeng navel orange and Chongguo peach can be brought in the insurance, which can strengthen their resistance against natural disasters. The simultaneous promotion of traditional marketing and “Internet+” should be adhered to, and advanced experience of e-commerce in agricultural products, such as the pattern in Shaji, Xuzhou, Jiangsu and Suichang, Zhejiang, should be learned and used for reference. In addition, the marketing pattern of “accurate marketing” and “circle marketing” should be energetically explored, the additional value of agricultural products should be enhanced, and peasants’ income should be raised.

### **3.4 Reinforce skill training and enhance the capability of independent operation**

Enhancing operators’ cultural quality and scientific and technological level is advantageous to the implementation of large-scale intensified organic eco-agriculture and modern agriculture. First of all, the training of operators of family farms should be intensified. The government should consider *Peasants’ Scientific Quality Education Outline* as the blueprint, supervise relevant agriculture-involved departments to carry on the “activity on improving peasants’ scientific quality”, and bring operators of family farms in the programs of cultivating new professional peasants and practical talents, and “sunshine project”. In terms of training, the objectives should be established, the content should be enriched and the substantial effect should be reinforced, the pattern of “staged, practice-oriented and participation-oriented training” should be explored<sup>[9]</sup>, and peasants’ comprehensive qualities and operation capability should be enhanced. Secondly, talent reservation should be provided to the development of modern agriculture. Relevant policies and measures should be energetically improved, and graduates from colleges and secondary technical schools, as well as new peasants, practical talents, demobilized army men and returning villagers should all be encouraged to develop family farms. Thirdly, the vocational education system on agriculture should be perfected, and the experienced of agriculturally developed countries, such as Japan and France, should be used for reference. In addition, the system, through which new vocational peasants (including farmland

owners) can be cultivated and relevant qualification can be certified, should be constructed within the minimum time. Family farm operators should be encouraged to attend various forms of advanced or medium-level vocational education, through which they can elevate their education background, acquire professional certificates or titles for technical personnel, and inject new energy to the development of modern agriculture.

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