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RESEARCH ON THE PATH AND COUNTERMEASURES OF ACCELERATING THE POVERTY ALLEVIATION TO A WELL-OFF SOCIETY FOR THE CHARACTERISTIC AGRICULTURAL INDUSTRY IN THE SOUTHWEST MOUNTAINOUS AREA

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Research on the Path and Countermeasures of Accelerating the Poverty Alleviation to a Well-off Society for the Characteristic Agricultural Industry in the Southwest Mountainous Area

Mingjiao TAN¹, Chunjie QI²

Abstract

With the deepening of the implementation of the “precision poverty alleviation” strategy and the continuous development of China’s ethnic minority characteristic industry construction, more and more characteristic agricultural industry and poverty alleviation project are receiving attention. The development of characteristic agriculture is the strategic adjustment of agricultural structure in the southwestern region. The rapid development of pillar industries in the characteristic agricultural industry will inevitably promote the scale of commodity production bases and the rational allocation of resources, realize the multi-level and multi-channel development and utilization of agricultural resources, and meet the diverse and high-quality market needs. This article aims at the current situation of the characteristic agricultural industry in the southwest mountainous area, which studies the path and related policies of poverty alleviation and well-off in southwestern China. Taking Chengdu-Chongqing Economic Zone as an example, the policy background of industrial poverty alleviation, the main methods of industrial poverty alleviation, the main problems, their causes, and countermeasures analyzed and discussed in this paper. Through the research and analysis of the Chengdu-Chongqing Economic Zone samples, this paper proposes the path of industrial poverty alleviation in ethnic areas, which has a direct role in promoting poverty alleviation in the southwest mountain area. The research of poverty alleviation problem in this area will be reference for poverty alleviation in other poverty areas and ethnic minority areas.

Keywords: poverty alleviation, characteristic agricultural industry, ethnic minority, social development, poor areas, social evaluation.

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Introduction

Poverty is the biggest obstacle to economic development. China used to be one of the poorest countries in the world. After nearly 40 years of unremitting exploration of poverty and poverty alleviation, the number of poor people in our country has continued to decrease. Southwestern China includes Yunnan, Chongqing, Sichuan, Guizhou and the mountainous regions of western Hunan, with a land area of 1.18 million square kilometers. The population is 198 million, accounting for 15.9% of China. The southwestern region dominated by hills and mountains, with high mountains and deep valleys. The area of the hills and mountains in the whole region accounts for 92.6% of China, of which the mountain area accounts for 76.3%, and Sichuan Province has the highest proportion of hills and mountains in China. The area only accounts for 4.9% of the total land area of the province, plus the valley plain and mountain depression areas only account for 7.5% of the total land area. Southwest China is rich in biological resources and has many rare animals and plants. The unique geographical environment and geomorphologic characteristics of this area have formed a complex and variable ecological environment, providing favorable conditions for the survival and evolution of various flora and fauna, and becoming China's most abundant biological resources. Because of the Quaternary Glacier period, this area has not affected by the northern continental glaciers like other areas, which enabled many tertiary fauna and flora to preserve and reproduce. For example, Sichuan Province has a natural three-dimensional climate, diverse land resources, and rich non-arable land resources. It is very suitable for the growth and development of many organisms. It has extremely rich biological resources, including forests, grasslands, and crop varieties (Wong, Flynn-Evans, & Ruskin, 2018). Among them, there are more than 3,800 wild plant resources, more than 3,700 medicinal plants. Among the variety of biological resources, fruit plants mainly composed of kiwi and prickly pear, high-protein fungi mainly composed of bamboo fungus, and agaric fungus are of good quality and widely distributed. Chinese medicinal materials have prominent advantages, accounting for 80% of Chinese herbal medicines in the country, and the reserves of Chinese herbal medicines are about 1.96 million tons. Among them, *Eucommia ulmoides*, *Gastrodia elata*, *Wujing*, and *Dendrobium* are Chongqing. Chongqing Province has about 70 million mu of non-arable land resources suitable for forests and pastures, of which shrubs and natural pastures are abundant. There are also high-quality water resources such as mountain ponds, reservoirs, and artificial lakes, which can develop freshwater aquaculture (Liu, & Yang, 2018). At the same time, the mountainous and hilly areas of Chongqing Province account for 97% of the province's land area, and the non-arable land resources are more than three times that of cultivated land, and the potential for agricultural and sideline product development is great. These advantageous conditions have shown broad prospects for the development of agriculture with local characteristics.

However, agricultural development in the hilly and mountainous regions of the southwest still faces many problems and obstacles. First, the diversity of terrain and climate makes it difficult for large-scale promotion of advanced agricultural technologies and excellent crop varieties, and it is difficult to highlight the benefits of scale in agricultural production, which makes it difficult to increase agricultural production and increase farmers' income. Karst landforms have increased agriculture's dependence on climate, and modern agricultural development is at great risk. Second, the inconvenience of transportation and communication restricts the development of commodity agriculture. Third, poor agricultural conditions, extensive management, and low production levels. Fourth, the area of soil and water loss is large, and the ecological environment is fragile. Seasonal drought is severe, and the area affected by drought is up to 188.2 square kilometers, accounting for 58.4% of the area affected by crops. Fifth, the proportion of agricultural population is large, the cultural quality is low, and technology promotion is difficult (Zhou, *et al.*, 2018). The region's agricultural population accounts for 83.6% of the total population, which is 8.4 percentage points higher than the national average. Farmers have lower cultural, scientific, and technological qualities, make it difficult to promote technology, and have fewer scientific and technological personnel. Sixth, poverty is huge. Seventh, township and village enterprises are underdeveloped, rural collective economies are weak, agricultural inputs are inadequate, and the agricultural structure is single.

Based on the actual situation of the construction of ethnic minority villages in the southwest mountain area under the strategy of "relieving poverty and running a well-off society", this article carefully answers on how to implement the "precision poverty alleviation" strategy in the process of constructing ethnic minority villages. On the one hand, it explores how to better promote and promote the construction of villages with ethnic minorities under the strategy of "raising poverty and running a well-off society". From the characteristics of industrial development, cultural protection, infrastructure construction, sustainable ecological construction, education development, regional joint development, optimization of benefit distribution, and academic research, nine strategies were put forward to promote poverty alleviation and a well-off society innovative ideas and countermeasures for the construction of ethnic minority villages in the southwest mountainous areas. In order to achieve the integration and development, it is helpful to achieve a certain theoretical innovation and practical innovation in the strategy of "out of poverty and a well-off society" and the construction of ethnic minority villages.

Literature Review

Poverty still exists in the international arena, especially China, with 1.3 billion people. Although economic development in recent years has driven poverty alleviation in many regions, there are still some places in China that

have not escaped poverty. China has made a long-term practical struggle to solve the poverty, which has promoted the academic community's theoretical and empirical discussions on poverty reduction. The solution of the poverty problem requires a more scientific and effective approach and operation carrier. Agricultural industrialization provides a good research demonstration. At the 19th National Congress of the Communist Party of China in 2017, General Secretary Xi emphasized that "winning the battle against poverty" is a path that has pursued in the past, we must adhere to in the future. Under the above background, a new round of poverty alleviation work has carried out in many places, including poverty alleviation in the southwest mountainous areas. This measure fully shows the Party and the state's determination to attach great importance to a region and to alleviate poverty.

Eradication of poverty and prosperity

With the deepening of the new round of poverty alleviation work, new propositions have emerged in traditional industrialized poverty alleviation. The focus of domestic research has turned to empirical research on the organic combination of precision poverty alleviation and agricultural industrialization. At the Symposium on Precision Poverty Alleviation held in Chengdu in May 2016, domestic anti-poverty scholar Huseth-Zosel (2012) clearly emphasized that the key to the benign cycle of poverty alleviation in the agricultural industry is market transactions, which effectively stimulated leading enterprises, agricultural cooperatives, and poor farmers to escape poverty. Nakai Noda, & Kato (2017) agreed with Professor Wang's point of view. He believes that in poverty alleviation, the agricultural industry will have driven purposefully and modern agriculture will promote the continuous transformation and upgrade of agricultural products, thereby benefiting poverty alleviation. 2. The purpose of nurturing poverty alleviation. Regarding the key points of the industry's poverty alleviation, Almosallam, Jarvis, & Roberts (2016) and others fully recognized the importance of technical talents, and advocated "nanny" assistance for the development of industries for the poor. The "superimposed" model of "model parks" and "sales talents + professional associations" lead the development of agricultural industrialization to alleviate poverty. Firoozabadi, Uitdewilligen, & Zijlstra (2018) took the poverty alleviation practice of Longfeng Town, Enshi, Hubei as an example. He believed that by supporting the development of local characteristic agriculture, it would be possible to achieve employment of the poor labor force at the same time. Under the influence of the policy environment of poverty alleviation, it can be said that 2016 is a year of poverty alleviation ideology and fruitful research. Among them, the research on poverty alleviation of agricultural industrialization has continued to popularize local geographic characteristics and introduce novel ideas. Xia *et al.* (2016) based on the perspective of market analysis of precision poverty alleviation, scattered poverty areas and poor people cannot form a joint force to

get rid of poverty. In contrast, the poverty-stricken people's enthusiasm for poverty alleviation is fully mobilized and government-level decisions. The formation of native motivation is helpful to solve such problems, but due to the large market fluctuations, the corresponding theoretical support is not enough to maintain a relatively stable decision-making atmosphere. At the same time, the role of the market has alienated and exaggerated. In addition, the implementation of the viewpoint of the "Poverty Alleviation Law" will help to clearly distinguish the functions and scope of government and market, and ensure that the top-level design of poverty alleviation is more reasonable and scientific. Wu *et al.* (2018) analyzed the case of the "First Secretary Industry Alliance" in Longzhou, Guangxi, and concluded that leading enterprises and cooperatives cannot guide the normalization of agricultural industrialization in a long-term manner. The internal driving mechanism for the development of agricultural industrialization has led by the government. Li *et al.*, (2016) believes that industrial poverty alleviation needs to take full account of the development of characteristic industries in ethnic areas. The innovation poverty alleviation mechanism for targeted industries, the precise poverty alleviation of "measures to local conditions", and the establishment of a dynamic early warning mechanism for industrial classification are given. The path selection provides a reference for the specific implementation of the income increase of characteristic industries in the new period and the realization of the goal of precision poverty alleviation in the new stage. To sum up, the author's foreign literature is mainly about the country's policy implementation of poverty alleviation and development, and the thinking based on poverty theory (Huang *et al.*, 2016). These countries combine the thinking of anti-poverty and agricultural industrialization development, and discuss the precision agricultural industry discussed in this article. Research on poverty alleviation is of great inspiration. From the perspective of industrialized poverty alleviation in China, especially the precision poverty alleviation of agricultural industrialization, Chinese scholars have carried out multi-dimensional, abundant, and extensive academic research. The academic results formed have important enlightening significance for the development of this research. However, from a practical point of view, the discussion on the county-level cities of the smallest implementing unit for precision agricultural industrialization poverty alleviation is still slightly lacking, especially for the analysis and case study of agricultural industrialization poverty alleviation cases. Theoretical tools analyze the predicament of industrialized poverty alleviation, and lack of empirical research on how to achieve poverty alleviation in county-level cities with basic agricultural industrialization.

Related theoretical research

Industrialization refers to the development of the industry to a certain stage, which has formed a more complete production, sales, evaluation, and after-sales. It has more risk resistance and market adaptability. The content of industrialization

involves multiple fields such as the first, second, and third industries. This article studies the agricultural industrialization, which is more common in the first industry. In the mid-1990s, Shandong Province of China began to try agricultural industrialization for poverty alleviation, and achieved good results. The social evaluation is also relatively positive. The model of agricultural industrialization poverty alleviation in China follows the “Poverty Alleviation and Development Program (2001-2010)” has fully implemented. Domestic research generally believes that agricultural industrialized poverty alleviation is a kind of poverty alleviation model that combines local characteristics of poor areas. It takes market fluctuations as the starting point, government decisions as the lead, and the promotion of leading enterprises and agricultural cooperatives opportunity to mobilize the advantages of policies, funds, markets, and other parties to achieve a sustainable development model of poverty alleviation for enterprise cooperatives and poverty farmers (Peijun, *et al.*, 2016). This article believes that the background of the agricultural industrialization poverty alleviation is mainly that the government’s macro-control and market self-adjustment have failed in solving the poverty alleviation problems in the poor areas. The poverty-stricken areas of agricultural products with resource advantages have undergone continuous planning and construction to form a local characteristic and regional leading industry, thereby vigorously stimulating the local agricultural industry integrated business model of poverty alleviation and poverty reduction work.

Government-led poverty governance refers to actively guiding and supporting the participation of social forces in solving poverty, and fully mobilizing party and government agencies at all levels in developed regions, democratic parties, social organizations, civil organizations, private enterprises and volunteers to participate in poverty alleviation and development has become a bright spot in China’s poverty management. In general, government-led poverty management can better solve the problems of “who will use, how to use it, use it properly and use it” by developing industrial poverty alleviation funds. Guide the fund’s allocation of funds by changing traditional subsidies into investments, and use the decisive role of market allocation of resources as a benchmark to innovate, reform, and supplement fiscal poverty alleviation funds allocation systems (Alhaidary, *et al.*, 2018). This not only helps optimize the allocation benefits of poverty alleviation funds, but also helps guide funds to invest in characteristic benefits agriculture or high value-added agricultural service industries in poor areas, realize the structural adjustment and large-scale upgrade of the agricultural industry, and ultimately help with the market achieving poverty alleviation.

The proportion of the poor in China is now below 3%. According to international experience, when the proportion of the poor has fallen to 10%, the poverty reduction method must be changed to a micro level. Compared with the large-scale poverty alleviation and development work in the past, the market-oriented poverty governance is more focused on refinement and the targeting rate of the poor is higher. In this way, the effect of industrial poverty alleviation funds can

be used in poverty alleviation. New measures have continuously adopted in the supply of funds for the poverty alleviation industry. For example, first, actively promote the exploration of the service reform path of the financial services industry of agriculture, rural areas, and farmers, in-depth study of Xi Jinping's thought of socialism with Chinese characteristics in the new era, and implement the report of the 19th National Congress of the Communist Party of China. The No. 1 Document of the Central Committee deals with the issues concerning agriculture, rural areas, and farmers. From the basic level to explore the needs, financial service reform programs, especially explored for the current difficulties in agricultural loans, guarantees, agricultural insurance difficulties such as difficulties make efforts to try to provide practical and effective financial service support solutions for the current "Three agriculture" issues. Summarizing the current financial service plan, the shortcomings of the plan summed up in practice, a solution tried to explore from a new perspective and a new way of poverty relief funding support, and a feasible and adaptable financial service explored for poverty alleviation.

The research design of speeding up poverty alleviation for the characteristic agricultural industry in the southwest mountain area

Overview of the research area

The *Chengdu-Chongqing* Economic Zone, which covers parts of Sichuan and Chongqing, is an important population, town, and industrial agglomeration area in the country. It is an important support for leading the rapid development of western China, improving the level of inland opening up, and strengthening the overall strength of the country. Its scope includes 15 cities including Chengdu, Deyang and Mianyang in Sichuan Province, 9 main cities in Chongqing and 20 districts and counties in the surrounding area, with an area of 26,000 km². However, the Chengdu-Chongqing Economic Zone has significant internal differences, and the Chengdu economic circle is a broad plain, which is conducive to the advancement of the urbanization circle and the rapid development of modern big agriculture. While Chongqing dominated by mountains and hills, urbanization emphasizes the development of ecologically efficient industries. There are many differences in land endowment and large-scale agricultural management in resource endowment, development process, operation, mechanism and implementation path. At the same time, it also determines that the agricultural development mode of Chengdu-Chongqing Economic Zone cannot be "one size fits all". Based on this basic understanding, we selected Guanghan City in Sichuan Province and *Jiangjin* District in Chongqing City in mountainous and hilly areas as sample areas (*Table 1*).

Table 1. Overview of the study area

Research sample	Topography	Climate	Soil	Socioeconomic condition
Guanghan City	In the hinterland of the western Sichuan plain, the landform is dominated by the plains, and there are a few shallow hills in the east. The altitude is between 445 and 707m, and the area is 538km ² .	It belongs to a humid climate zone in the mid-subtropics, with an average annual rainfall of 890.8mm, an average annual temperature of 16.3 °C, and an average frost-free period of 281d.	The thickness of the cultivated land in the territory is greater than 100cm, which accounts for 7.43% of the total cultivated land area, and less than 30cm accounts for only 1.5% of the total cultivated land area. The soil has good tillability, long suitable tillage period, and good fertilizer performance, which is suitable for the growth of a variety of crops.	In 2015, the city governed 18 towns and streets, with a resident population of 610,000 and an urbanization rate of 50%. In the whole year, the GDP reached 32.39 billion yuan, an increase of 8.4% over the previous year. The ratio of the primary, secondary, and tertiary industries was 9.5: 62.6: 27.9. The per capita disposable income of urban residents is 28,156 yuan, and the per capita disposable income of farmers is 14,212 yuan. The overall level of agricultural mechanization of major crops reached 77.16%, with a grain output of 31.98 million tons, a rape output of 317,000 tons, and a vegetable output of 536,000 tons.

Jiangjin District	<p>The southwestern tip of the parallel ridge-valley fold area in the east is dominated by mountainous landforms. With hilly area accounting for 65.1%, mountainous area accounts for 31.8%, valley terrace area accounts for 3.1% between 146 and 1646m, and the area of 3219km².</p>	<p>It belongs to a subtropical humid monsoon climate, with an average annual rainfall of 1.025 mm, an average annual temperature of 18.3 °C, and a frost-free period of 253 to 341 days.</p>	<p>The endowment of cultivated land resources is good, the farming history is long, the land is fertile, and the soil is mainly sand shale. Among them, the purple flavor-aquic soil and loamy soil have high fertility and wide applicability.</p>	<p>In 2015, the district governed 29 towns and streets, with a permanent population of 129,250, and an urbanization rate of 63.7%. In the whole year, the GDP reached 60.56 billion yuan, the growth of 12.2% over the previous year, and the ratio of the primary, secondary, and tertiary industry was 12.53: 63.08: 24.39. The per capita disposable income of urban residents is 27,951 yuan, and the per capita disposable income of rural residents is 13,722 yuan. The annual overall level of agricultural mechanization of major crops reached 53.3%.</p>
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Data sources

Through random sampling, using direct observation, questionnaire surveys, semi-structured interviews, and special group discussions in the Participatory Rural Assessment Method, surveys were conducted on four aspects: (1) Land transfer in towns and villages The overall situation and main practices; (2) Farmers and large-scale farmland transfers; (3) Farming situation of farmers and large households; (4) The flow and use of resource elements before and after land transfer.

In June-August 2014, field surveys were conducted in 5 townships including Lianshan Town, Songlin Town, Hexing Town, Xinglong Town, and Xiwai Township in Guanghan City, Sichuan Province. A total of 650 questionnaires were distributed and 622 valid questionnaires were recovered, of which 62 575 questionnaires for general farmers (including 314 questionnaires for transferred farmers and 261 questionnaires for non-transferred farmers), and 47 questionnaires for professional large households. In July-August 2015, field surveys were conducted in 6 towns and streets, including Ciyun Town, Wutan Town, Baisha Town, Youxi Town, Xihu Town and Xianfeng Town, Jiangjin District, Chongqing City. A total of 540 questionnaires were distributed and 480 were recovered. There were 446 valid questionnaires, of which 446 were general farmer questionnaires (including 254 questionnaires for transferred farmers and 192 questionnaires for non-transferred farmers), and 34 were professional large household questionnaires (Table 2). During the investigation, small-scale symposiums were held to collect and sort out the overall situation of farmland circulation in various towns, and the time was controlled within 1h. A questionnaire survey was used to find out the situation of farmers' contracted land circulation, and the time was controlled at about 0.5h. The in-depth interviews were used to explain the land management situation of typical large agricultural operation households. The time was controlled at about 1h.

Table 2. Basic situation statistics of the questionnaire

Sample of <i>Guanghan</i>	Household Questionnaire	big specialized household	Leading industry	Sample of <i>Jiangjin</i>	Household Questionnaire	big specialized household	Leading industry
Lianshan	84	13	Grain and oil	Baisha	66	5	Grain and oil
Songlin	146	14	fruit	Xianfeng	72	5	fruit
Xinglong	137	12	vegetables	Xihu	63	6	vegetables
Xiwai	68	4	Nursery stock	Ciyun	87	8	Nursery stock
Hexing	139	7	Livestock	Youxi	77	5	Livestock
Sum	574	50		Sum	365	29	

In addition, the supplementary data included in the study also include regional land transfer general information provided by *Guanghan City, Jiangjin District* Land and Resources Management Department, and agricultural departments, and local land transfer policy. Relevant statistical yearbooks, statistical bulletins, and annual government work reports from statistical departments and networks of the two places. Resource data from the two places of China Meteorological Science shared data sources, including solar energy, wind energy, rainwater potential energy, rainwater chemical energy, and earth rotation energy.

Research content and methods

This article aims to develop characteristic agricultural industry poverty alleviation and moderate scale operation characteristics indicators in the southwest mountainous area, and sort out the questionnaire data and interview record information of farmers and large business households in Chengdu and Chongqing through statistics. The experimental results show that the differences between the characteristics of poverty alleviation and modest scale operation of the characteristic agricultural industries in the two places are mainly reflected in the behavioral differences of farmers in the process of poverty alleviation of characteristic agricultural industries and the differences in the use of characteristic industries after concentration (Gerstle, 2017). Therefore, on the basis of reference to related research, an index system reflecting the differences between the characteristic agricultural industries of the two places in poverty alleviation and moderate scale operation characteristics was constructed (*Table 3*).

Table 3. Characteristic indicators of poverty alleviation and modest scale operation of characteristic agricultural industry

Poverty alleviation and modest scale operation of characteristic agricultural industry		Meaning	Unit
Development of characteristic agricultural industry for farmers	Willingness to develop special agriculture	Proportion of farmers with characteristics of agricultural industry	
	Output rate of characteristic agricultural development	Agricultural land area with characteristic agricultural industry	
	Development period of characteristic agriculture	Land signing period of characteristic agricultural industry	
	Characteristic agricultural development form	Specific methods adopted by characteristic agricultural industries	

Operating indicators of big business	Development Scale of Special Agriculture	Proportion of large operating households of different operating scales to the total number of large operating households	
	Agricultural Industrial Structure Index	Proportion of large business households engaged in a certain agricultural industry type	
	Labor input per unit of land	Number of laborers converted to per-unit land for permanent and temporary employment	
	Unit land agricultural input	Fertilizers, farm manures, pesticides, seeds, electricity, fuel, etc. converted into agricultural inputs	
	Unit land operating income	Economic benefits of output per unit of land area	

Results and analysis

Behavioral characteristics of characteristic agricultural industries

Compared with the plain area, the mountainous area has rugged landforms, inconvenient transportation, finely divided land, and centralized management is difficult, with high labor intensity and low efficiency. Statistical analysis shows that the average labor force of farmers in *Jiangjin District* is 3.03, which is 0.22 higher than that of *Guanghan City*, of which 1.53 are engaged in non-agricultural activities, although it is 0.04 higher than that of *Guanghan City*. However, the proportion of family labor force is 2.52% points lower than that of *Guanghan City*. It can be seen that the level of non-agriculturalization of family labor force in *Jiangjin District* is lower than that of *Guanghan City*. The average contracted land per household is 0.31mm², which is 0.07mm² higher than that of *Guanghan City*. However, there are many dry lands and few paddy fields. Sloping arable land has a large proportion. The average number of plots per household is 10.92, which is 4.39 higher than that of *Guanghan*. Agricultural income accounts for 35.39% of household income, which is 18.97 percentage points higher than that of *Guanghan City*. It can be seen that land and agriculture are more important to the household livelihoods of farmers in *Jiangjin District* than in *Guanghan City*.

2. Outgoing scale of characteristic agriculture

This article considers 100% of farmers with a special agricultural transfer rate as fully transferred households, 50% to 100% of the households are highly transferred households, and less than 50% are general transferred households. Among the

surveyed characteristic agricultural transfers, Jiangjin District generally transferred 32.29%, which was 6.17 percentage points higher than that of Guanghan City. The highly transferred households accounted for 37.40%, which was 7.19 percentage points lower than that of Guanghan City. It shows the dependence of farmers' families on characteristic agriculture in Jiangjin District, and the restriction of fine land parcels on the concentration of agricultural land transfer. At the same time, Jiangjin District completely transferred out households accounted for 30.31%, slightly higher than Guanghan City (Figure 1), reflecting different behavioral decisions of farmers in hilly and hilly areas and farmers in plains under certain conditions (Malliou *et al.*, 2016). Jiangjin District is a mountainous and hilly area. The convenience of transportation and economic and social development is significantly lower than that of Guanghan City in the plain area. Farmers work mainly in different places, and the main labor force of the family is also transferred. Therefore, such farmers tend to special agriculture circulation. However, most farmers in Guanghan City choose to work locally, and the main family activities are still in rural areas. Therefore, such peasant households tend to use the family's corner plots and marginal labor to reduce the cost of living consumption.

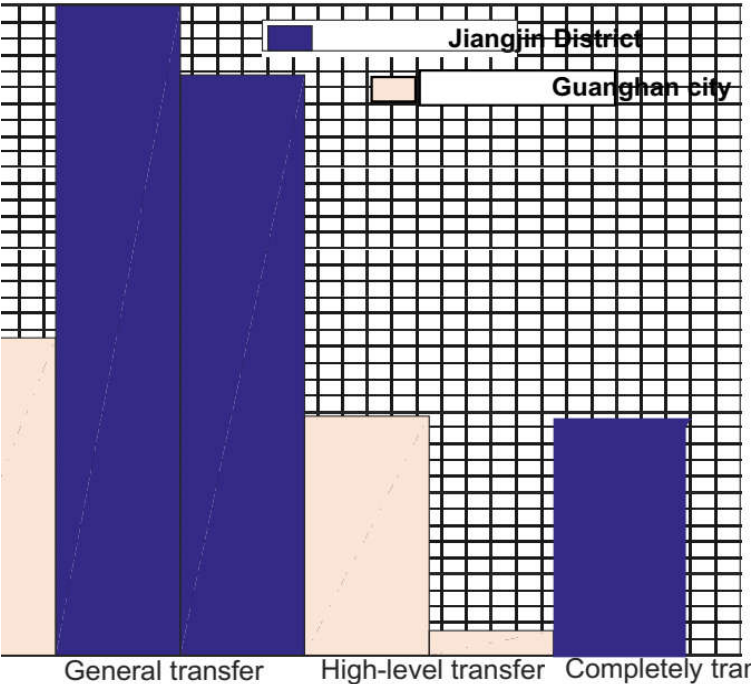


Figure 1. Comparison of transfer scale of characteristic agriculture in the sample area

Special agricultural circulation price

The characteristic agricultural transfer price is closely related to the endowment of agricultural land resources and the development of the agricultural land market. Statistics show that in the Jiangjin District’s transferred characteristic agricultural structure, the ratio of the number of characteristic agricultural transfer households and ordinary farmers is 1.43: 1. The price of characteristic agricultural transfers is concentrated at 500-800 yuan per 667m2, and the planting prices of ordinary farmers are concentrated at 300-500 yuan per 667m2. The number of special agricultural transfer households to ordinary farmers in Guanghan City is 11.48: 1. The price of special agricultural transfers is concentrated at 800-1,000 yuan per 667m2, and the planting prices of ordinary farmers are concentrated at 300-500 yuan per 667m2. At present, the price of agricultural land transfer is mainly based on the yield of 667m2 of food crops (Mitishita *et al.*, 2016). Due to the limitation of topography, a lot of slope farmland in Jiangjin District is only suitable for dry farming. Therefore, the farmer’s contracted land has a lot of dry land, high proportion, and low output. Guanghan has a flat terrain, good water conservancy, a large number of paddy fields, and can be concentrated and connected. It has a high output level. Therefore, the price level of special agricultural circulation in Jiangjin District is significantly lower than that in Guanghan City.

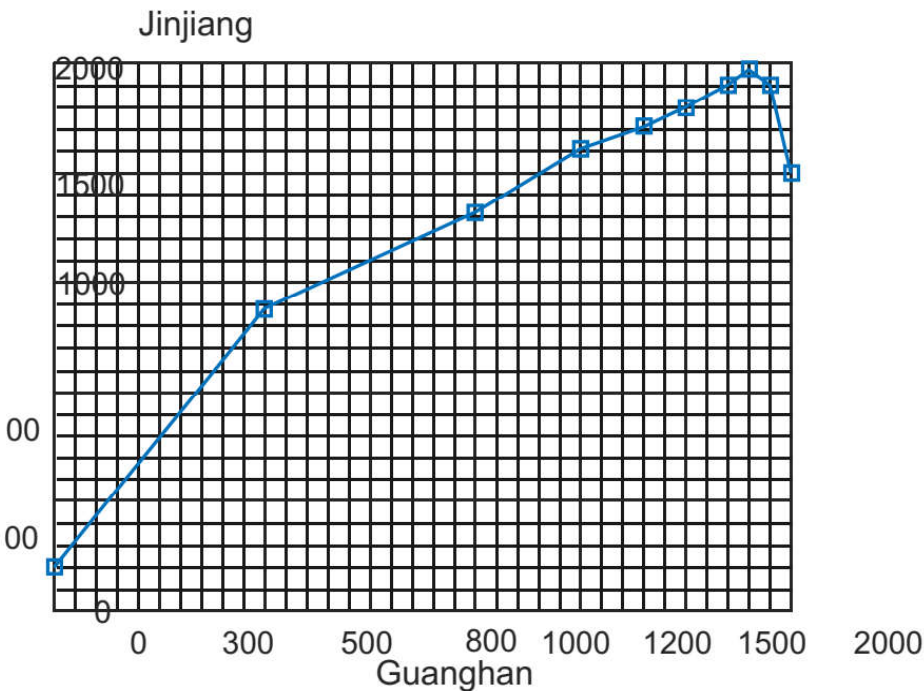


Figure 2. Comparison of characteristic agricultural transfer prices between both sample regions

Problems existing in poverty alleviation and well-off

The government's leadership needs to strengthen. Although local governments at all levels in the Chengdu-Chongqing Economic Zone have formulated poverty alleviation policies and promulgated industrial poverty alleviation programs. Due to the financial difficulties of counties, townships, and villages, the local government lacks the ability to make blood and develop itself, and it is difficult to escape poverty. Local poverty alleviation can only rely on the input of higher-level governments, which is highly dependent. Because of the lack of government guarantees, no assets to mortgage, and effective guarantees from bank loans, it is difficult to obtain loan support. The interest rate of private lending is generally high. Once borrowed, it will only worsen the situation, and the poor will not be able to bear it. The shortage of funds has become a major bottleneck restricting the development of industries for the poor.

Relatively lagging industrial development. Although the three major industries have a certain scale, the industry participants are single-family farmers, each as a whole, without forming a complete industrial system, and lacking unified coordinated management and integrated development. There are few leading processing enterprises, small scale, low level of economic cooperation organizations, poor driving ability, and low quality, and management level of employee. Specifically, Chengdu-Chongqing Economic Zone has initially formed characteristic industries such as citrus and seasonal fresh fruits, but as a complete industrial system has not yet formed, fruit farmers and duck farmers still stay on traditional agricultural planting (breeding) and preliminary processing. The seasonal fruits are just making a few bucks through the fresh market model. Local farmers do not carry out deep processing of products. They do not have a long industrial chain to increase the value of the industry, and the comprehensive development effect of the derivative industry. The reason for the imbalance in the ratio of input to output is that the products cannot withstand the test of market risks. The scale is larger, and the output benefit is lower. The lack of development of leading enterprises is mainly reflected in the small and size of the seasonal fresh fruits, the variety is relatively large, and no famous brand has been established. The scale of duck farming also needs to expand, and the quality of processing and packaging needs to improve. Although the above three industries have a certain industrial foundation, the industrial characteristics have not yet formed the scale and climate of industrialization.

Low level of social services. The standards for planting and breeding demonstration bases in the southwest mountain area are not high, and the promotion of new technologies is lacking. Large planting and breeding households, and staff at township agricultural technology stations do not have sufficient knowledge of emerging industry technology. The coverage of specialized pest and disease

prevention needs to improve, and the comprehensive control level needs to improve. Specifically, the minimum number of agricultural technicians at the township level in the southwest mountainous region is only 2 and the maximum is 6. The serious shortage of agricultural technicians directly affects the promotion of new technologies. Investigations of towns and villages in the southwest mountain area found that many fruit farmers still have not adopted the current popular bag cultivation technology. The most direct reason is that there are few agricultural technicians.

Mass education lagging behind. Poor households engaged in agricultural production at this stage have low educational level, low comprehensive quality, and poor ability to apply new technologies, which is difficult to meet the requirements of new professional farmers. They need to increase their training efforts. To increase the capacity building of poor households, technology application ability, risk resistance ability, information utilization ability, and social participation ability are all improved. According to the survey, all farmers in the southwestern county, only 3% have high school education or above. Education level above junior high school only accounts for 70% of primary school education. They can only understand what the TV people say, they cannot understand the manuals, and their overall quality is low.

Causes of the Problems in Industrial Poverty Alleviation

Inadequate poverty alleviation. In recent years, although the financial revenue of counties and towns in the southwestern mountainous regions has been expanding, the cumulative debt burden has also increased year by year. The main causes of financial difficulties in counties are poor natural conditions, weak economic foundations, insufficient tax sources, and excessively rapid growth in personnel expenditures in fiscal expenditures. However, they are also related to the imperfect fiscal system. Most local fruit farmers continue to use the traditional and inferior sales methods of the past. Fruits have almost not commercialized, but they are directly put on the market. Only a few high-quality fruits cleaned and classified for simple storage, and most of them stay at the inefficient manual stage. In addition, there is no unified planning in the local area, the supporting facilities cannot keep up, and the large-scale deep-enterprise enterprises have not introduced. As a result, the conflict between production and sales has become increasingly prominent. Due to the low pay of agricultural technology promotion work, they have to deal with the majority of farmers every day. The difference is much worse, so many professionals who were originally engaged in agricultural technology promotion are vying to change jobs (Maessen, 2016). College students graduated from agricultural colleges are also reluctant to enter the industry-girls, although young people want to enter the industry by their knowledge. At the same time, due to the lack of relevant incentive mechanisms, many agro-tech extensionists

think that doing more and less is the same, doing better or worse, the more you do, the more mistakes you have, it is better to quit. I just think that there is no silver in my pocket, I have a lot of complaints, and I have no passion to promote agricultural technology.

Low industry awareness. The Chengdu-Chongqing Economic Zone characterized by the humanities of ethnic minorities and has thousand years of civilization. Whether in terms of scenery or humanities, the Chengdu-Chongqing Economic Zone is very suitable for the development of tourist attractions, but due to the weak awareness of local tourism development, the tourism resources of the Chengdu-Chongqing Economic Zone have been in a “barren” state. In addition, the Chengdu-Chongqing Economic Zone lacks overall planning and ecological breeding industrial parks. Failure to rationally plan the use of resources has led to damage to the ecological environment and reduced ability to withstand natural disasters. When pests and diseases are outbreaks, pesticide use has to aggravate and environmental pollution is increased. The polluted environment will in turn affect the development of agriculture, forestry, and animal husbandry, such as citrus and seasonal fresh fruits, forming a vicious circle. There is no scientific management mechanism for single planting. Taking citrus and seasonal fresh fruits as examples, there is no scientific cultivation plan and method. Farmers make their own planting plans based on their own experience, which may cause unscientific phenomena such as excessive use of pesticides and unreasonable chemical fertilizer application.

Weak social service capabilities. Some farmers have the wrong idea of saving money and are unwilling to accept mechanical defense services. Unless they are understaffed, they will only hire others for prevention and control. For example, farmers in the mountainous areas of Chengdu-Chongqing Economic Zone have planted some citrus, and households should stock sprayers. Diseases and insect pests of fruit trees, fruit farmers should carry a small sprayer. When rural cadres suggested hiring professional control personnel to control insect pests, the villagers’ cherishment of this idea makes it difficult to carry out specialized prevention work in a large area, which affects the efficiency of specialized prevention. In addition, the plant protection equipment required for the prevention and control of plant diseases and insect pests has a large investment in the early stage, and the plant diseases and insect pests are natural biological disasters. It has suddenness, outbreak, and disaster, and the plant protection social service organization has small benefits and high risks. In addition, it belongs to the low-profit industry. Therefore, the team is extremely unstable, good technology went elsewhere for development, and the remaining professional skills were not too hard. This phenomenon directly led to the poor level of professional pest control.

Education lagging behind. During the construction of the characteristic agricultural industry in the southwest mountainous region, spiritual constraints have become increasingly prominent. Some villagers not only lack the corresponding

skills and methods, but also lack the subjective desire for their own actions. Obviously, an incorrect value was formed. At the same time, in the process of the protection and development of characteristic villages, there was not a master's attitude to participate in the construction of characteristic agricultural industries, there was a phenomenon of passive acceptance, and the endogenous motivation for construction was lacking. First, many peasants are lagging behind in thinking. Second, there is still a patriarchal mind in the southwestern mountain area. Some parents mistakenly believe that the daughter was married out for her to read more. Third, poverty leads to out of school. Although some parents are open-minded, they hope that children can read more books and go out of the mountains to live a better life. However, because the family was poor and could not afford the heavy tuition fees, parents only allow children to go to elementary school for a few years. After learning a few words, they early persuaded the children to drop out of school and work at home. There is grain in the warehouse. There is only a variety of rice. The rice bag is swollen, and a family will not go hungry. There is no hope that you can get rich with fresh and special fruits. It is good to change oil and salt at most.

Discussion

Strengthen government leadership

The situation of multiple channels is coordinated, and targeted inputs are pooled to form a joint force to improve the consistency of policies. This article constructs reasonable characteristics with a view to the completion and construction of a unique agricultural industry in the mountainous areas of the southwest. The theory of poverty culture reflects the main problem of the lack of development motivation of poor peasant households due to their lack of original poverty alleviation. The most important thing to promote the industrialization of agricultural poverty alleviation is to guide the poor peasant households, which avoid intergenerational transmission of poverty under relief-type poverty alleviation. The first is to improve the initiative of poor farmers through the actual measurement of income. Obviously, the income of poor farmers participating in agricultural industrialization will increase significantly. In fact, the government level of poverty alleviation in the southwest mountain area is publicly disclosed. However, after the industrialized poverty alleviation, each poverty-stricken household's own income increase, the proportion of income increase, and the role of industrialized poverty reduction have not specifically explained. Therefore, government decision-making and hearings need to strengthen the promotion of relevant data on industrialized poverty alleviation, and encourage the production enthusiasm of poor farmers with actual increase and visible numbers. The second is to strengthen the idea of "fate community" for poor farmers and the main units of poverty alleviation. In the

process of agricultural industrialization poverty alleviation, the economic income of poor farmers has closely related to the closeness of the main body of poverty alleviation. To this end, through such methods as publicizing village affairs, rolling broadcasts of public service platform construction, and preaching village officials. Furthermore, the educational level of farmers should have broadened. Poor peasant households with higher education and broader horizons will be more likely to participate in the precision agricultural industrialization poverty alleviation. Therefore, the overall level of poor peasant households' acceptance is taken as the limit, and the poor peasant households' understanding level, material level, and technical level are fully considered. In order to improve the education level of poor farmers, they have adopted a combination of multi-carriers and multi-channels to improve their education. In this paper, the development of a complete precision industry plan needs to start from the aspects of supporting industries, supporting products, and poverty alleviation models. The development of agriculture in the industrial structure of the southwest mountain area is the most long lasting and stable. In addition, the quality of "special produce" agricultural products and the smooth flow of current sales channels are guaranteed.

The mountains in the southwest are high, the valleys are deep, and the remote and poor mountainous areas have extremely inconvenient transportation. It is difficult to travel, go to school, and enter and leave the goods. In order to change the backward situation of rural transportation facilities, the mountainous areas in the southwest must vigorously implement the "transport first" strategy, which take the construction of rural roads as an important measure for the people, serve the comprehensive well-off in the countryside, and overcome poverty. Local governments should guide the standardized production of agricultural products, supervise agricultural capital investment, and monitor the safety and quality of agricultural products. It is necessary to strengthen the supervision of the quality of the whole process, from the source of production to the agricultural products consumed at the table. Local governments actively expand new agricultural product trading methods, vigorously develop e-commerce, logistics and other forms, increase the "Internet +" efforts in the industry's targeted poverty alleviation efforts in southwest mountainous areas, and encourage poor families to set up platforms for agricultural product sales and services.

The anti-poverty supervision mechanism is established to ensure that the poverty reduction work is carried out solidly. At present, the poverty reduction work in China is government-led and is a public welfare act with government power. Therefore, in order to make this kind of power far more beneficial to the development of poverty alleviation, it is necessary to form a mechanism to regulate this kind of power. Therefore, an evaluation system needs to be included in the monitoring mechanism. In general, information symmetry is related information released by the government for poverty alleviation. The target of poverty alleviation areas can be understood in a timely manner, such as the poverty situation, the implementation status of poverty alleviation, and preferential policies. This

requires local government departments in mountainous areas in the southwest to build dynamic, timely, and accurate collection and working mechanisms. In addition, the local disciplinary inspection department should also exert supervision intelligence to ensure the smooth development of the precise poverty alleviation, disciplines on a regular or irregular basis in areas of poverty alleviation work, and seriously investigate and deal with corruption, misappropriation.

Create characteristic industries

The core of the precise positioning of the agricultural industry is to create a strong and advantageous industry. In this way, the poor households will have led to “a well-off society.” The results have a direct impact. In addition, the local comprehensive economic strength will also have a decisive impact on the scale and effectiveness of poverty reduction in the agricultural industry. Therefore, in order to realize the “ben Xiaokang” of the poor households in the southwestern mountainous areas, optimize the industrial structure, and strengthen the economic strength, the agricultural aspect must be developed. After the agricultural poverty alleviation-leading project in the southwest mountainous region is confirmed, the company in charge of the project and the local government should establish a relatively complete basic society according to the needs of the project development. First, from the policy level, the local government should carry out a variety of resources, such as taxation and information technology. In addition, enterprises should conduct targeted fine processing of agricultural products, scientifically guide and plan the production, processing, and sales of agricultural products, and build a complete agricultural industry chain, and use this to enhance the brand. New types of business entities, such as farmer cooperatives or leading enterprises, who have a willingness to borrow, have the potential for employment and entrepreneurship, technical quality, and a certain ability to repay, and establish a cooperative relationship with the poor households who establish a card. Formulate financial poverty alleviation plans, innovate and develop micro-credit mechanisms for poverty alleviation, and establish financial products and services in accordance with the characteristics of characteristic industrial development. Poverty alleviation departments must also take the lead in industrial planning, targeted assistance, labor skills training, infrastructure construction and other poverty alleviation and development work, as well as explore the mode of investment promotion and poverty reduction projects.

Improve social services

Not relying on technology to help the poor, targeted poverty alleviation is empty talk; without training a group of poor households who know the technology, there is no way to talk about all poverty alleviation. Therefore, in the industrial poverty alleviation work, we must increase the promotion of new technologies and the

penetration rate of applications. Local governments must vigorously strengthen the selection and breeding of fine varieties and the research and development, promotion and application of new varieties and new technologies, and steadily increase the technological content of poverty alleviation in the industry. At the same time, vigorously cultivate science and technology demonstration households in poor villages. Each village selects a few poor households to perform technology-tracking services, and uses their technology to become rich to encourage the poor households around them to participate in this industry actively. Through various channels and methods, characteristic agriculture in the southwest mountainous area focuses on popularizing and displaying modern agricultural knowledge and technological innovation achievements. Every year, various agricultural technological achievements must have displayed, popularized, and promoted. At the same time, it is necessary to establish a long-term mechanism for the transformation and application of scientific and technological achievements of agricultural technicians directly to households, and technical essentials directly to people.

Southwest mountainous areas need to cooperate with large-scale agricultural industrialization enterprises, and in accordance with the model of “enterprise + association + base + farmers”, through the provincial and municipal scientific and technological platforms, industrial development and peasant employment are bundled together to vigorously develop migrant workers to return to their hometowns to start business and drive rural personnel employment nearby. The characteristic agricultural industry in southwest has strengthened epidemic surveillance and information reporting. It is necessary to make full use of the monitoring points and other monitoring methods of the digital surveillance and early warning system for epidemic diseases, and effectively do a good job in monitoring and disseminating information on diseases and insect pests. Field technical guidance should give full play to the technical training and popularization role of farmers’ field technical training schools. The comprehensive application of multiple pest control methods needs to guide farmers to adopt scientific control technologies, correctly guide farmers to control crop diseases and insect pests, and strive to reduce the number and use of chemical pesticides and protect the ecological environment. At the same time, it is necessary to publicize the protection of beneficial insects in orchards, promote the use of biological pesticides, use solar insecticidal lamps, hanging fly traps and other traps to kill pests, and guide farmers to use high-efficiency and low-toxic pesticides during the high incidence of pests or when the damage is difficult to control.

Improve the quality of farmers

Southwest mountainous areas should integrate training resources, and carry out all-round, deep level, and large-scale education and training activities for rural farmers. Relying on the strength of scientific research institutions, we will build demonstration bases for production, learning, and research, guide post-70s and post-80s laborers to return to their hometowns to start business, and cultivate new types of professional farmers. In the southwest mountain area, basic education, skills training, employment and job selection training, and pre-job training are carried out in accordance with the actual situation of the poor to improve their ability to create opportunities, find opportunities, seize opportunities to get rich, and get rid of poverty. Local governments must rely on practical exploration and experience to cultivate self-development capabilities in the practical activities of production and life. Local governments can combine local actual characteristics to develop characteristic industries such as duck, citrus, and fresh fruits with local characteristics. Through the construction of the system, the operation of the enterprise is more standardized and rule-based, thereby improving its competitiveness and combat effectiveness in a market economy. The source of farmers' income increase is "industrial + skills" to improve the skills of industrial development. Properly improve and implement the treatment of agricultural science and technology personnel, including political treatment and living treatment, and implement various subsidies.

Conclusion

Since the implementation of developmental poverty alleviation in the 1980s, China has made remarkable achievements in the world. The large-scale reduction of the poor has provided new ideas for the world's poverty reduction work. However, as the number of large-scale poor people decreases, the role of economic growth in reducing poverty will gradually decrease, and new problems will arise because of poverty. The previous development-oriented poverty alleviation model has not been able to meet the current poverty alleviation requirements. Therefore, China is adapting to the development of the times, constantly adjusting the poverty alleviation mechanism, and creatively put forward the concept and policy of precision poverty alleviation. The southwest mountain area has a large poverty area, many poor people, and deep poverty. Taking the Chengdu-Chongqing Economic Zone as an example, this paper analyzes the current situation and dilemmas of industrial poverty alleviation in the context of precision poverty alleviation. Through research and analysis of samples of the Chengdu-Chongqing Economic Zone, this article attempts to find the causes of these difficulties and propose countermeasures.

Recommendations

This article uses Chengdu-Chongqing Economic Zone to study the current situation of industrial poverty alleviation in the southwest mountainous area, and comprehensively analyzes and discusses the policy background of industrial poverty alleviation, the main methods of industrial poverty alleviation, the main problems and their causes, and suggestions. Explored the law of industrial poverty alleviation, summarized the county poverty alleviation experience, and proposed the industrial poverty alleviation path in ethnic areas, which has a direct role in promoting poverty alleviation in the southwest mountainous area represented by Chengdu-Chongqing Economic Zone. The southwest mountain area is the largest and most populous ethnic minority settlement in the inland border region of China. It is the core and focus of poverty alleviation in China's inland areas. The study of poverty alleviation in this area can be used as a reference for other poverty alleviation work in the poverty areas. However, the problem of poverty alleviation in poor areas is still an issue worthy of long-term attention and in-depth research. It is hoped that more scholars will invest on targeted poverty alleviation and industrial poverty alleviation in the future, which help more poverty-stricken areas take off the "poverty hat" and reach the "comprehensively-off society" achievement of goals.

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