Effect Analysis and Mechanism Design of Poverty Alleviation in Chinese Contiguous Impoverished Areas——Taking Hubei Province as an Example

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Abstract: Poverty alleviation work in China' s contiguous impoverished areas has entered a crucial stage. It is urgent to solve such problems as low precision of poverty alleviation policies, inaccurate regional positioning, poor poverty alleviation efficiency, and multi-dimensional poverty alleviation. Based on such five dimensions of economic level as the output level, consumption level, human resources and medical security, the author constructed a comprehensive evaluation model for poverty alleviation effect in China's contiguous impoverished areas by the principal component and cluster analysis method, and take Hubei Province as an example, ranking and classifying the comprehensive evaluation of poverty alleviation effects in four contiguous impoverished areas and 29 impoverished counties/urban areas in Hubei Province. The results show that the development of contiguous impoverished areas is quite different, and the poverty alleviation efficiency still needs to be improved.

Since the reform and opening, China has vigorously promoted poverty alleviation work, along with the formulation and execution of policies like "China Rural Poverty Alleviation and Development Program (2011-2020)" (hereinafter referred to as the "Outline") [1], "Opinions of the CPC Central Committee and the State Council on Implementing the Rural Revitalization Strategy" [2], poverty alleviation has made great achievements. However, due to the low level of overall economic and social development in China, the underlying factors that restrict the development of poverty-stricken areas still exist, especially the task of poverty alleviation in the contiguous impoverished areas is still very arduous. In view of the above situation, while combing the poverty alleviation policy in China's concentrated contiguous impoverished areas since 2011, the author analyzes and evaluates the effects of contiguous impoverished areas and found the difficult point problems of poverty alleviation work, which is of great significance to accelerate the economic development of impoverished areas and promote the coordinated development of China's regional economy.

1. Background of Poverty Alleviation Work in Concentrated Contiguous Impoverished Areas

1.1. The History of China's Concentrated Contiguous Impoverished Areas

Since the reform and opening, China' s poverty alleviation work has gone through four stages: from 1978 to 1985: the stage of promoting poverty alleviation through system reform, from 1986 to 1993:the large-scale development-oriented poverty alleviation stage, from 1994 to 2000:poverty alleviation stage, and from 2001 to the present. Comprehensive poverty alleviation stage [3].The definition of "contiguous impoverished areas" first appeared in the "Announcement on Facilitating the Poverty Alleviation in the Impoverished Areas" issued by the Central Committee of the Communist Party of China and the State Council in 1984. Since then, China has started a large-scale poverty alleviation and development work. Since 1986, the state has identified and adjusted county-level support entities for poverty alleviation and development three times, and confirmed 331 state-level impoverished counties [4]. In 1988, the National Development Bank Document No.2 reclassified the original 14 "contiguous impoverished areas" into 18 impoverished areas.

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Since then, with the rapid development of China's economy, poverty alleviation and development work has been vigorously promoted, and the number of poor people has decreased drastically, but the phenomenon of poverty imbalance has become increasingly prominent [5]. In 2010, the State Council's Western Region Development Leading Group put forward the concept of "contiguous impoverished areas", and the theory of poverty alleviation and development was further developed. In 2011, the promulgation of the "Outline of China's Rural Poverty Alleviation and Development (2011-2020)" determined that the contiguous impoverished area is the primary focus of the national overall poverty alleviation work. In 2012, under the spirit of the "Outline", based on those indicators which are highly correlated with the poverty level like the per capita GDP in the country, per capita net income of farmers in the county, and the per capita general budgetary income of the county ,according to the principle of "concentrated continuousness ,highlighted key points, overall planning, and district integrity", the State Council Poverty Alleviation Office selected eleven contiguous impoverished areas with particular difficulty (referred to as contiguous impoverished areas) and listed them as the main battlefields for poverty alleviation in the new era [6].

1.2. The Poverty alleviation Process in the Contiguous Impoverished Areas of Hubei Province

Among the 11 contiguous impoverished areas with particular difficulty and 680 counties in the main battlefield for poverty alleviation identified by the "Outline" in the next decade, Hubei Province has 4 contiguous impoverished area, including 31 counties/districts (shown in Table 1). Located in central China, Hubei Province is an important part of the Yangtze River Economic Belt and the core area of China's poverty alleviation work. In 2012, the " Outline of Rural Poverty Alleviation and Development in Hubei Province" and the "Promoting Measures for Regional Development and Poverty Alleviation in Hubei Province" identified the principle for poverty alleviation work of "uniform planning, centralized use, unchanged essence, and no channel confusion". Counterpart support and resource integration to maximize poverty alleviation benefits [7]. In October 2015, "the Decision of the Hubei Provincial Committee of the CPC and the Hubei Provincial People's Government on the Promotion of targeted poverty alleviation (document of Hubei [2015] No.19)" was issued, which determined the overall goal of targeted poverty alleviation in Hubei Province:" By 2019,5.9 million poverty-stricken people (the static population at the end of 2013) were all out of poverty in the whole province, 4,821 impoverished villages were all out of poverty, and the 37 impoverished counties under the regional policy which belong to government-designated poor counties were all 'out of poverty'" [8].

Table 1 List of counties in contiguous impoverished areas in Hubei Province [9]

District	Cities	Counties
Dabie Mountain Area	Xiaogan City	Xiaochang County, Dawu County
	Huanggang	Tuanfeng County, Hong'an County, Luotian County, Yingshan County, Qichun County, Macheng City
Wulingshan Region	Yichang City	Zigui County, Changyang Tujia Autonomous County, Wufeng Tujia Autonomous County
	Enshi Tujia and Miao Autonomous Prefecture	Enshi City, Lichuan City, Jianshi County, Badong County, Xuan'en County, Xianfeng County, Laifeng County, Hefeng County
Qinba Mountain areas	Shiyan City	Yunxi County, Zhushan County, Fang County, Danjiangkou City
	Shennongjia Forestry District	Shennongjia Forestry District
	Xiangfan City	Baokang County
Mufu Mountain Area	Huangshi city	Yangxin County
	Xianning City	Tongcheng County, Chongyang County, Tongshan County

2. Comprehensive Evaluation of Poverty Alleviation Effect in Contiguous Impoverished Areas in Hubei Province

2.1. Construction of Comprehensive Evaluation Index System for Poverty Alleviation Effect in Contiguous Impoverished Areas in Hubei Province

So far, there have been a lot of researches on the establishment of evaluation index system [10-12]. The evaluation index system is widely used in various fields, however, due to different evaluation methods, evaluation criteria and evaluation objectives, the emphasis in various evaluation index systems is not the same. Adhering to the principles of objective, fair, visualized, and comprehensive operation, this paper starts from such five-dimensional economic level as output level, consumption level, human resources and medical security and establishes a comprehensive evaluation index system of poverty alleviation effect in contiguous impoverished areas in line with national conditions of China, and the indicator system is shown in Table 2.

The comprehensive evaluation index system for poverty alleviation effect in China's contiguous impoverished areas is divided into three levels. 1 first-class indicator (the target level) is a comprehensive evaluation index system for poverty alleviation effect in China's contiguous impoverished areas. The first-class indicator is the target indicator level, which is to measure the ultimate goal of the comprehensive evaluation of poverty alleviation effect in the contiguous impoverished areas. The first-class indicator is also a summary of the comprehensive evaluation index system for poverty alleviation in contiguous impoverished areas, which comprehensively reflects the basic situation of poverty alleviation in the contiguous impoverished areas of Hubei Province; five secondary indicators (the system level) include the economic level, the output level, the consumption level, the human resources and the medical security. The secondary indicators comprehensively consider the poverty alleviation and development system in the contiguous impoverished area, and form the multi-dimensionality of poverty alleviation effect evaluation, which constitutes the main framework of the comprehensive evaluation index system for poverty alleviation effect in the contiguous impoverished area.;17 third-class indicators (Index level) are specific basic indicators which are effective and operable and the concrete realizations of the comprehensive evaluation index system for poverty alleviation effects in contiguous impoverished areas.

Table 2 Comprehensive evaluation index system for poverty alleviation effect in contiguous impoverished areas of Hubei Province

Index layer	Indicator	Meaning
Economic level	X1 Per capita GDP	This indicator is one of the important indicators to measure the economic situation of the district , which can comprehensively reflect the regional development level.
	X2 Fixed asset investment	It can reflect the comprehensive indicators like the scale, speed, proportional relationship and use direction of the fixed assets investment.
	X3 Total financial revenue	It can reflect important financial indicators of the district and measure the regional ability to provide public goods and services.
	X4 Foreign trade export	It can reflect the total scale of the area in terms of foreign trade.
	X5 Total tax revenue	The annual total tax revenue of the district can objectively reflect the development of the region and it is the focusing mirrors of social development.

Output level	X6 Grain output	It includes the grain output of the state-owned economy, collective unified management and the Peasant household, which is one of the important indicators of reflecting the regional output level.
	X7 Common arable land area	The arable land area is the basic indicator of reflecting the regional agriculture development.
	X8 Tertiary industry growth rate	The tertiary industry is all kinds of services or commodities, and the added value of the tertiary industry is the epitome of the regional economic development.
	X9 Total agricultural output value	It can reflect the output of all agricultural, forestry, animal husbandry and fishery products in the form of currency, and the total scale of agricultural production as well as the total results in a certain period of time.
	X10 Output value processing industry for agricultural products	The agricultural product processing industry is the sum of industrial activities which use agricultural materials, artificial breeding or wild animal and plant resources as raw materials, reflecting the scale of industrial activities carried out by using agriculture, forestry, animal husbandry, fishery products and processed products as raw materials.
Consumption level	X11 Total retail sales of social consumer goods	The retail market is the terminal market of commodities. Total retail sales can reflect the material and cultural living standards of the residents in the district, the realization degree of the aggregate purchasing power, and the scale of the retail market.
	X12 Per capita disposable income of urban permanent residents	It is an important basis fornational economy policy decision and marks the immediate consumption capacity of urban residents.
	X13 Per capita disposable income of rural permanent residents	It reflects the rural social and economic development and the current situation of farmers' life, which is an important basis for formulating rural economic policies.
Manpower resource	X14 Permanent resident population	It refers to the number of permanent residents who live at home for more than 5 months.
	X15 The population of ordinary middle schools' students	The number of students in ordinary secondary schools is the expression of the educational situation in the region, which can reflect regional emphasis to the education and development level of education in this region.
Medical security	X16Number of beds in medical and health institutions	It represents the number of medical facilities, which is the embodiment of the development of medical institutions in the district.
	X17 The population of health professionals	It embodies the degree of talent aggregation in the district which is a representative indicator of medical insurance for regional residents.

2.2. The Construction of Comprehensive Evaluation Model for Poverty Alleviation Effect

At present, the types of evaluation index models are diverse [13-14], including element analysis

[15-16], principal component analysis [17], data envelopment analysis [18], analytic hierarchy process [19], Correlation analysis method [20-21], Delphi method, etc. The principal component analysis is the objective analysis method that eliminates subjective judgment, whose core idea of dimension reduction greatly simplifies the comprehensive evaluation model. The basic idea of this paper is to use principal component analysis to analyze the comprehensive evaluation index system of poverty alleviation effect in contiguous impoverished areas, and extract a few principal components to replace most of the information in the original index system to reduce the complexity in the calculation process. at the same time, to eliminate the correlation between indicators.

2.2.1. Empirical Research

(1) Data Collection and Processing

In order to ensure the accuracy of the research results, according to the “2017 Hubei Statistical Yearbook” and the statistical bulletins of the national and economic development of the counties and cities, the author collected the data of four contiguous impoverished areas and 29 counties / urban areas and figured out their corresponding index, which is needed for the evaluation of the poverty alleviation effect in contiguous impoverished areas of Hubei province in 2016. In order to eliminate the influence of the dimensional difference of each index on the empirical research results, this paper adopts the normalized distribution data standardization processing method, and preprocesses the collected original indicators to eliminate the dimension influence.

Subsequently, the data was tested for feasibility. The KMO test value of the sample reached the most basic level of 0.723 and more than 0.5. The approximate chi-square of the Bartlett sphericity test was a 546.695, and the significance probability was 0, which could indicate that the data is suitable for principal component analysis.

Table 3 Tests of KMO and Bartlett.

Sampling enough Kaiser-Meyer-Olkin metrics.		0.723
the Bartlett sphericity test	approximate chi-square	546.695
	df	136
	Sig.	0

(2) Evaluation on poverty alleviation effect of contiguous impoverished areas in Hubei Province

According to the principle that the eigenvalue is greater than 1, and the cumulative interpretation variance is greater than 85%, the common factor is extracted. Table 4 shows the eigenvalues, variance contribution ratios, and cumulative variance contribution rates of the data after normalization processing. Under the condition of 85% threshold, 5 principal components can be obtained, and the cumulative variance contribution rate is 85.935%, indicating that the first five principal components have retained 85.935%of the original data.

Table 4 Characteristic values, variance contribution rates, and cumulative variance contribution rates.

Component	Initial Eigenvalues			Extract sum of squares loading		
	Summation	Variance %	Accumulation %	Summation	Variance %	Accumulation %
1	9.575	56.322	56.322	9.575	56.322	56.322
2	1.632	9.6	65.923	1.632	9.6	65.923
3	1.425	8.385	74.308	1.425	8.385	74.308
4	1.146	6.741	81.049	1.146	6.741	81.049
5	0.831	4.886	85.935	0.831	4.886	85.935

Table 5 Feature vectors corresponding to principal component eigenvalues.

Index	Feature vectors				
	1	2	3	4	5
ZX1	0.096	0.062	0.195	0.081	-0.014
ZX2	0.088	0.208	0.162	0.034	0.084
ZX3	0.09	-0.184	-0.055	0.146	-0.181
ZX4	0.069	0.043	-0.321	0.294	-0.14
ZX5	0.086	-0.27	-0.066	0.191	-0.142
ZX6	0.078	0.161	0.106	-0.412	0.003
ZX7	0.084	0.084	-0.174	-0.327	-0.025
ZX8	0.042	0.396	-0.275	0.382	-0.2
ZX9	0.079	0.267	0.062	-0.141	0.312
ZX10	0.073	-0.12	0.173	0.289	0.056
ZX11	0.098	-0.044	0.003	0.017	-0.025
ZX12	0.063	-0.326	0.187	-0.011	0.216
ZX13	0.032	0.14	0.504	0.298	-0.007
ZX14	0.098	0.089	-0.006	-0.166	0
ZX15	0.088	-0.062	-0.08	-0.119	-0.271
ZX16	0.082	-0.194	-0.105	-0.208	-0.173
ZX17	0.045	-0.063	-0.263	0.139	0.913

According to the feature vector corresponding to the principal component eigenvalue and the principle that each index is assigned the largest absolute value, we find that:

The first principal component (F1) has a characteristic value of 9.575, and the principal component variance contribution rate is 56.322%, which is mainly represented by the regional GDP and the total retail sales of social consumer goods. Therefore, the first principal component is named as the regional economic potential. The second principal component (F2) has a characteristic value of 1.632, and the principal component variance contribution rate is 9.6%, which is mainly represented by fixed asset investment and tertiary industry growth rate. Therefore, the second principal component is named as regional industrial development strength. The third principal component (F3) has a characteristic value of 1.425, and the principal component variance contribution rate is 8.385%, which is mainly represented by rural disposable income. Therefore, the third principal component is named as the regional consumption power. The fourth principal component (F4) has a characteristic value of 1.146, and the principal component variance contribution rate is 6.741%, which is mainly represented by grain yield, common cultivated area, and output value of agricultural product processing industry. Therefore, the third principal component is named as regional agricultural output. Level. The fifth principal component (F5) has a characteristic value of 0.831, and the principal component variance contribution rate is 4.886%. It is mainly represented by the number of beds in the health care institutions and the resident population. Therefore, the fifth principal component is named as the social welfare level. It can also be seen from the above table that the regional economic potential is in a dominant position among the five main components, and the influence on the poverty alleviation effect of the contiguous impoverished areas in Hubei Province is very huge, which is the embodiment of the regional comprehensive strength.

The ratio of the variance contribution rate of the five principal components to the contribution rate of the cumulative variance is weighted, and the principal components of the poverty alleviation effect in the contiguous impoverished area are weighted and summed (see formula), and the comprehensive score of the evaluation of the poverty alleviation effect in the contiguous impoverished area is obtained (See Table 6), which is:

$$Y = \frac{56.322\%F_1 + 9.6\%F_2 + 8.385\%F_3 + 6.741\%F_4 + 4.886\%F_5}{85.9356\%} \quad (1)$$

Table 6 Comprehensive scores for evaluation of poverty alleviation in contiguous impoverished areas in Hubei Province.

County/urban area	Principal component 1	Principal component 2	Principal component 3	Principal component 4	Principal component 5	Total points	Ranking
Yangxin County	1.942442	3.469656	-2.1396	1.948652	-1.11129	2.267589	1
Tongcheng County	-0.24751	0.286971	1.961812	1.282469	0.320479	1.492371	2
Baokang County	-0.30732	-0.4292	0.326354	1.217863	0.098855	1.417191	3
Zigui County	-0.40131	-0.10473	0.090183	1.139901	-0.14191	1.326469	4
Danjiangkou city	0.830149	-1.2028	0.817666	1.112594	-0.4655	1.294693	5
Enshi City	2.325501	-3.11596	-1.34815	1.0847	-0.44207	1.262233	6
Hefeng County	-1.18156	-0.39118	0.059038	0.935516	-0.38715	1.088632	7
Tongshan County	-0.44416	0.317639	0.190502	0.580162	-0.06659	0.675117	8
Tuanfeng County	-0.8824	-0.0933	0.679721	0.505161	-0.43311	0.587841	9
Fang County	-0.25971	-0.05214	-1.62135	0.49848	4.7057	0.580066	10
Chongyang County	-0.2509	0.387782	1.498521	0.46391	0.063429	0.539838	11
Changyang Tujia Autonomous County	-0.15827	0.116244	0.07899	0.461029	0.633559	0.536486	12
Yingshan County	-0.67262	0.431215	0.473603	0.286461	0.034125	0.333347	13
Qichun County	1.722517	0.429396	1.525786	0.176608	0.395947	0.205513	14
Hong'an County	0.609388	-0.84661	0.066729	0.146999	-0.47913	0.171058	15
Wufeng Tujia Autonomous County	-1.30649	0.126856	0.081228	0.024289	-0.08633	0.028264	16
Xuan'en County	-1.00657	-0.0071	-0.46658	-0.10818	-0.35554	-0.12588	17
Laifeng County	-1.00476	-0.76738	-0.10116	-0.1518	-0.28522	-0.17664	18
Xianfeng County	-0.7112	-0.08598	-0.46325	-0.43803	-0.97888	-0.50973	19
Luotian County	-0.0148	0.157999	0.125696	-0.59468	-0.34673	-0.69201	20
Badong County	-0.31396	-0.35867	-0.56732	-0.66414	-0.41475	-0.77284	21
XiaoChang County	0.220677	0.234114	-0.02864	-0.68043	0.230195	-0.7918	22
Jianshi County	-0.32902	-0.21907	-0.69755	-0.86415	-0.58934	-1.00558	23
Zhushan County	-0.36725	0.487462	-0.6027	-0.9863	0.019042	-1.14773	24
Zhuxi County	-0.74749	0.625327	-0.57332	-1.08653	-0.41779	-1.26436	25
Dawu County	0.45985	0.031536	0.770553	-1.12444	0.275316	-1.30848	26
Yunxi County	-0.66088	0.413017	-0.75797	-1.15467	-0.1967	-1.34366	27
Lichuan City	1.003906	-0.73101	-1.3768	-1.90903	-0.39139	-2.22148	28
Macheng City	2.153792	0.88992	1.998005	-2.10241	0.812739	-2.44651	29

2.2.2. Classification of Poverty Alleviation Effects in Contiguous Impoverished Areas in Hubei Province

According to the change of the score in Table 6, 29 counties/urban areas were divided into four intervals by cluster analysis, which were respectively 1 to 2.5, 0 to 1, -1 to 0, and -2.5 to -1. The seven counties/urban areas located in the 1 to 2.5 interval are the areas with the best poverty alleviation effect. The 9 counties/urban areas in the 0 to 1 interval are areas with good poverty alleviation effects, and 6 counties / urban area in the -1 to 0 interval are areas with a general poverty

alleviation effect, and 7 counties/urban areas located in the -2.5 to -1 interval are areas with poor poverty alleviation effects. The specific county/urban area of each interval is shown in Table 7.

Table 7 Cluster analysis results of poverty alleviation effects in contiguous impoverished areas based on their scores

Main class	Score interval	County/City
I	1~2.5	Yangxin County, Tongcheng County, Baokang County, Zigui County, Danjiangkou City, Enshi City, Hefeng County
II	0~1	Tongshan County, Tuanfeng County, Fang County, Chongyang County, Changyang Tujia Autonomous County, Yingshan County, Hunchun County, Hong'an County, Wufeng Tujia Autonomous County
III	-1~0	Xuan'en County, Laifeng County, Xianfeng County, Luotian County, Badong County, Xiaochang County
IV	-2.5~-1	Jianshi County, Zhushan County, Zhuxi County, Luxi County, Dawu County, Lichuan City, Macheng City

According to the classification results in Table 7, the classified quantity of poverty alleviation effects in each district, city, and state was counted. The results are shown in Table 8.

Table 8 Statistical table of classified quantity on the poverty alleviation effects in the contiguous destitute areas in Hubei Province.

District	Cities	Class Ⅰ	Class Ⅱ	Class Ⅲ	Class Ⅳ
Dabie Mountain Area	Xiaogan City	0	0	1	1
	Huanggang	0	4	1	1
Wulingshan Region	Yichang City	1	2	0	0
	Enshi Tujia and Miao Autonomous Prefecture	2	0	4	3
Qinba Mountain areas	Shiyan City	1	2	0	3
	Xiangyang	1	0	0	0
Mufu Mountain Area	Huangshi	1	0	0	0
	Xianning City	1	2	0	0

2.3. Analysis on the Evaluation Results of Poverty Alleviation Effect in Contiguous Impoverished Areas in Hubei Province

According to the comprehensive scores of the poverty alleviation effect evaluation in the contiguous impoverished areas of Hubei Province in Table 6 and the classification results of the poverty alleviation effect in the contiguous impoverished areas based on the scores in Table 7, we can obtain the recent progress of poverty alleviation in the contiguous impoverished areas in Hubei Province.

2.3.1. Poverty Alleviation Progress is Unbalanced, and the Effect of Which is Quite Different

The statistical results in Table 8 clearly reflect the gap of the poverty alleviation effect in the various districts in the contiguous impoverished areas in Hubei Province. The Mufu Mountain area is the best area for poverty alleviation in the four contiguous impoverished areas of Hubei Province. The poverty alleviation effects of the four counties/urban areas included in Huangshi City and Xianning City are relatively high, indicating that the Mufu Mountain area achieved good results in both economic development and poverty alleviation in 2016. The progress of poverty alleviation in Wuling Mountain is quite different, Yichang City has made good progress in poverty alleviation, while the effect of poverty alleviation in Enshi Tujia and Miao Autonomous Prefecture is polarized: Enshi City and Hefeng County have achieved good results in poverty alleviation, while the poverty

alleviation in Lichuan City and Jianshi County have shown minimal results. The same situation is also reflected in the Qinba Mountain area. The effect of poverty alleviation in Shiyan City is obviously polarized: Fangxian County and Danjiangkou City have better effects, while the poverty alleviation effects of Yunxi County, Zhushan County and Zhuxi County are ranked at the bottom of the list of 29 counties/ urban areas. The poverty alleviation effects of the eight counties/urban areas in the Dabie Mountains generally showed a poor situation.The progress of poverty alleviation construction in both Xiaogan City and Huanggang was barely satisfactory.

2.3.2. The Focus of Development is Different, and the Characteristics of Poverty Alleviation are Obvious

From the scores of five main component like the regional economic potential, regional industrial development strength, regional consumption strength, regional agricultural output level and social welfare level, the poverty alleviation policies of 29 counties/urban areas included in the contiguous impoverished areas in Hubei Province are different. According to the advantages and characteristics of each place, we will carry out poverty alleviation in a targeted manner.

Taking the Mufu Mountain Area and the Qinba Mountain Area as examples, the scores of poverty alleviation effects of Yangxin County, Tongcheng County, Chongyang County and Tongshan County included in the Miaoyu Mountain Area are respectively: 2.268, 1.492, 0.539, 0.675, which are ranked 1st, 2nd, 11th and 8th respectively . According to the scores of each sub-item, all of the four counties pay attention to regional industrial development, regional agricultural production and regional economic development. In light of reality, the Mufu Mountain Area is positioned as a new energy base in the inland region and a agricultural specialty production and processing base in the southern part of Hubei Province. It aims to achieve poverty alleviation by promoting rural land circulation. The poverty alleviation effects of Fangxian County and Baokang County included in Qinba Mountain Area are 0.580 and 1.417 respectively, ranking 10th and 3rd respectively. Compared with other counties/urban areas, these two counties pay more attention to the guarantee of regional social welfare and concentrate on improving the level of medical care in the region.

3. Thoughts on Promoting Poverty Alleviation in China's Contiguous Impoverished Areas

The four contiguous impoverished areas in Hubei Province are the epitome of 11 contiguous impoverished areas in China. From the analysis of poverty alleviation effects in the contiguous impoverished areas of Hubei Province, the current plight of poverty alleviation work in China’s contiguous impoverished areas is reflected.

3.1. Formulate a New Regional Development Strategy to Improve Regional Positioning Accuracy

Unbalanced regional development is one of the reasons for the formation of contiguous impoverished areas. According to the characteristics of different areas and regions, accurately positioning the development strategies of various regions can maximize the effects of poverty alleviation policies and solve the problem of inefficient poverty alleviation work. The government should base on the different resource advantages of the current contiguous impoverished areas, precise positioning different areas according to their resource endowment, economic development potential, consumption strength, and regional agricultural output level. This will induce the production factors to highly concentrate in the area, gathering together to create a new “growth pole” for regional development and reduce the gap between the rich and the poor among regions.

3.2. Precision Enhancement of Poverty Alleviation Policy Should be Implemented and the Government Should Play a Leading Role

The government’s poverty alleviation policy is the guiding principle for regional poverty alleviation work which can determine the specific direction of poverty alleviation work. When formulating poverty alleviation policies, the government should pay attention to the implementation

of policies and enhance the practicability and accuracy of policies.Taking Hubei Province as an example, each of the four contiguous impoverished areas has advantages and disadvantages: the Dabie Mountain Area is positioned as old revolutionary base areas, whose relevant policies should be tilted toward the direction of red tourism, highlighting the important position of agriculture, forestry and tourism in poverty alleviation; Wulingshan Region is a minority area, whose poverty alleviation policy should fully consider the combination of national culture and industry. We can attract investment through the folk handicraft industry and cultural tourism industry, promoting the overall poverty alleviation level in the Wulingshan area. Leading enterprises and professional cooperatives in the Qinba Mountain areas are important means to help the poor and alleviate their poverty. We should introduce relevant policies to promote leading enterprises to be the regional pillar industries, leading a large number of enterprises to grow rapidly, so as to drive regional economic development; The advantage of the Mufu Mountain Area is that it is a gathering place for production and processing industries. The policy should encourage the integration of related industries and high-tech, greatly increase the production level, expand sales channels and influence, and thus promote regional development.

3.3. Focus on Developing Technology-based Industries and Create a New Model for Poverty Alleviation in Hubei

Science and technology are the primary productive forces. Using the advanced technologies to develop China's contiguous impoverished areas can achieve sustainable development of poverty alleviation work. At the same time, poverty alleviation based on science and technology will contribute to breaking through the bottleneck in the poverty alleviation work in the contiguous impoverished areas: actively promoting high-tech breeding, planting technology, actively applying the animal and plant epidemic prevention technology, and popularizing agricultural mechanization technology will enhance the production capacity of the area. At the same time, products are the core of poverty alleviation. We should actively introduce Internet technology in the contiguous impoverished areas. Thanks to the advantages and characteristics of the Internet such as fast, economical and time-saving , we can increase the radiation area and the influence of the special industry in the district to solve the problems like financing, sales and other issues in contiguous impoverished areas. We can converge local specialty products, expand sales channels with various types of Internet platforms, we can also use big data analysis methods to solve the problems reflected by local government and farmers' Internet transaction data, and realize online shopping and delivery in virtue of the current huge logistics system to expand the scope of business.

3.4. Intensify Efforts in Educational Poverty Alleviation in Various Districts, and Expand Multidimensional Poverty Alleviation Methods

Human resources are the foundation of a regional development, while education and health are important guarantees for human resources. Doing a good job in poverty alleviation of China's contiguous impoverished areas is inseparable from the improvement of education and health care level. First of all, we should make use of the domestic excellent educational resources and input this resources into the contiguous impoverished areas. Secondly, we can improve the school conditions for compulsory education in contiguous impoverished areas, increase the enrollment rate of compulsory education, provide educational privilege for families with special difficulties, implement and improve the tuition loan policy for college students, and ensure that every child can receive education. Furthermore, we should improve the welfare of teachers in contiguous impoverished areas, teaching research projects should be tilted towards impoverished areas, to create a good academic atmosphere for poor areas. At the same time, the improvement of medical and health levels in impoverished areas is also conducive to the development of poverty alleviation work in the district. On the basis of the full coverage of establishing card for archives, we should implement people's medical insurance in the contiguous impoverished areas, establish relatively complete regional medical facilities, introduce the medical-related talents for the impoverished areas, improve the regional medical strength, and ensure people's living standards in impoverished areas. From the aspects of education and medical care, we will expand the the multidimensional and

multi-angle poverty alleviation mode in the areas, enhance the endogenous motivation of the contiguous impoverished areas, and continuously improve the poverty alleviation effect.

4. Conclusion

According to the works above literature review and data analysis, we can clearly get the following conclusions: At first, formulate a new regional development strategy to improve regional positioning accuracy. Secondly, precision enhancement of poverty alleviation policy should be implemented and the government should play a leading role. Thirdly, focus on developing technology-based industries and create a new model for poverty alleviation in Hubei .Finally, intensify efforts in educational poverty alleviation in various districts, and expand multidimensional poverty alleviation methods.

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