Research on Anti-poverty Strategies in Resource-rich Areas

Based on Liangshan Prefecture in Sichuan Province

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Abstract—**Xi Jinping pointed out in 13th five-year plan that it should be scientifically planned to ensure that the poor people will be lifted out of poverty by 2020. By the end of 2013, according to the national standard for poverty alleviation, the rural poverty population is 6.02 million people in Sichuan province, which places the 6th in China. The Liangshan prefecture is one of the largest poverty areas in Sichuan, which is the deepest and the most complicated poverty region. It is seriously difficult to alleviate poverty and develop. In recent years, the Liangshan area has been involved in the "resource curse". This paper analyzes the problem of resource-rich poverty in Liangshan Prefecture, excavates the main influencing factors of poverty, and puts forward the countermeasure against poverty to Liangshan prefecture in the perspective of system and specific route.**

Keywords—undeveloped resource-rich area; poverty; main factors; anti-poverty countermeasures

I. INTRODUCTION

Many development economists believe that resources are the basis of economic growth. The rich natural resources will lead to the rapid economic growth, and slow economic growth is the result of lack of resources. But natural resources and economic growth do not have necessary positive correlation. Such as Japan, South Korea, Singapore and Switzerland, many regions have rich natural resources, but speed of growth is still low, which is the so-called "resource curse" phenomenon. [1]

II. DEFINITION AND CHARACTERISTICS OF RESOURCE ENRICHMENT POVERTY IN UNDERDEVELOPED AREAS

A. Under-developed Area

"Underdevelopment" is a historical, relative concept. Its most basic meaning is the development of low or inadequate development. Underdeveloped areas are due to lack of opportunities, incomplete information and other reasons caused by the slow development or stagnation of the region, which is a certain economic strength and potential but there is a gap with the developed areas, unbalanced development of productive forces, science and technology level is not developed areas, such as China's central and western regions.[2] In addition, some people think that the so-called underdeveloped areas, refers to the relatively backward socio-economic areas, not only those in absolute poverty areas, but also have many relatively poor areas.[3] In this paper, the less developed regions of Sichuan Province, Liangshan areas, the definition of the latter is based on the depth of poverty.

B. Poverty in Resource-rich Region

"Resource-rich poverty" refers to the phenomenon that resource needs and economic and social development are "disjointed" in areas with abundant resources and high production areas, where individual or family basic material needs are difficult to meet, social capacity and lack of opportunities." Resource-rich poverty" shows that the abundance of natural resources in a region is not necessarily matched with the level of its economic development. Large-scale, all-round and high-intensity resource development has brought a series of economic and social problems to the origin of resources, which has become a major problem that constrains the sustainable development of resources. If the region still has its own natural and social environment, it is easy to fall intothe cycle of "poverty - more poverty" cycle[4].

Note: As the Liangshan State Statistical Yearbook and Winds database updates to 2013 so far, most of the statistical analysis of this article mainly use the data before 2013 and 2013.

1   Sun hanbing,Li shiping"Resource curse" promoting urban transformation [J]. Anhui science and technology, 2006, (6) :17-19.

2   Yang xiaoguang, wang chuansheng, shengkorong. Research on classification and development model of China's less developed regions based on natural and cultural factors [J]. Journal of graduate school of Chinese academy of sciences, 2006, (1) :97-104.

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4   Su xun. Resource poverty: phenomenon, causes and compensation [J]. China mining, 2007, 10:12

III. RESOURCES ENVIRONMENT, RESOURCE DEVELOPMENT AND POVERTY

A. Summary of Resources and Environment in Liangshan Prefecture

1) Liangshan has rich natural resources: Liangshan is one of the most abundant natural resources in Sichuan Province. First, Liangshan is rich in water resources.With 15% of the country's water resources can be developed, is an important base of the national "West to East" .Secondly, the rich mineral resources. Liangshan is located in the famous Panxi rift valley metallogenic belt, is rare "cornucopia" in China and the world. Thirdly, the rich biological resources, there are more than 6,000 kinds of biological resources, forest coverage rate of 30.6%.Fourthly, rich in agricultural resources.Anning River Valley is the second largest plain in Sichuan Province, is the national and provincial agricultural comprehensive development of key areas, food crops and cash crops yield high, excellent quality.

2) Fragile ecological environment: Landforms are complex and diverse, mountains, hills, plains, basins are staggered, the relative height difference of 5653 meters.The territory of the state is fully developed, the fault zone is criss-cross, the fault block mountain, the rift basin and the fault valley are numerous. Influenced by the geographical environment, Liangshan landslides, mudslides and other natural disasters.

B. Liangshan Resource Revelopment Case

With a wealth of mineral and water resources, Liangshan formed a mining, resources roughing and hydropower development as the leading industries of the industrial system. In 2013, the industrial output value of related industries in Liangshan Prefecture accounted for 89.0% of the total industrial output value.

1) Mineral resources development focuses on mining but looks down on processing: In Liangshan areas mineral resources development system mainly includes mining and mineral resources rough processing industry.2013, mining industry output value accounted for the proportion of total industrial output value of 47.1%[5], mainly in the ore mining such as iron ore, gold, copper mining based.Mineral resources development heavy mining light processing, low value-added mining industry output value is greater than a certain value-added resources processing industry output value, lack of non-ferrous metals and non-metallic processing industry development.

2) Hydropower resources development has high investment but low output: Liangshan is the largest hydropower station base in China.But as of 2013, Liangshanzhou power generation is only 430.5 kilowatts, accounting for 17.6% of Sichuan only, electricity, heat

production and supply industry output value accounted for 11.4% of all industrial output value of Liangshan.

C. Liangshan Poverty Situation and Characteristics

1) Contiguous poverty: Liangshan Prefecture is concentrated in contiguous areas, among the 17 counties (cities), there are 11 national key poverty-stricken counties comparing with Sichuan Province's 30.6%. Focus on contiguous poor areas an area of 41,600 square kilometers, accounting for 68.9% of the area of jurisdiction.In 2012, 17 counties (cities) have rural residents in 10 counties in the Engel's coefficient above 59% for the extremely poor areas,inLiangshan Prefecture , as shown in "Table I".

TABLE I. ENGEL'S COEFFICIENT (EC) OF RURAL RESIDENTS IN LIANGSHAN PREFECTURE IN 2012

AREA	EC	AREA	EC	AREA	EC
XiChang CY	46.09	NingNan CNTY	48.45	MianNing CNTY	49.87
MuLi CNTY	77.10	PuGe CNTY	56.93	YueXi CNTY	65.43
YanYuan CNTY	51.02	BuTuo CNTY	81.20	GanLuo CNTY	75.92
DeChang CNTY	67.68	JinYang CNTY	79.04	MeiGu CNTY	72.14
HuiLi CNTY	45.61	ZhaoJue CNTY	65.45	LeiBo CNTY	73.44
HuiDong CNTY	53.46	XiDe CNTY	83.74		

[a.] Data source: Calculated based on Winds database

2) Comprehensive Poverty: Liangshan's economy, education, medical treatment, health, infrastructure, social security, environmental protection, human resources development and other social cultural undertakings are on the lowest level of the country. In terms of economy, compared with other "resource curse" stagnation of regions, liangshan prefecture's economy is growing rapidly, but the quality is low. From the point of liangshan prefecture economic development stage, in 2013 the first industry proportion is as high as 19.3%, and liangshan prefecture is still in the early stage of industrialization. The economic development lags behind the province and other developed regions, as shown in "Table II".

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[5] Note: The data from the "Sichuan Statistical Yearbook 2014"

TABLE II.   THE MAIN ECONOMIC AND SOCIAL INDICATORS OF LIANGSHAN PREFECTURE AND COUNTIES (CITIES) IN 2013

	GDP (Billion)	Per capita GDP(¥)	Industrial structure	Industrialization rate (%)	Urbanization rate (%)	Local public revenue (Billion)	Rural per capita net income (¥)	Urban per capita disposable income (¥)
Sichuan Province	26260.8	32454	13.0:51.7:35.3	44.1	44.9	2784.1	7895	22368
Liangshan	1214.4	26556	19.3:52.9:27.8	40.0	30.6	110.0	7359	21699
XiChang CY	373.54	50342	10.0:53.0:37.0	42.6	55.3	28.82	10340	25819
MuLi CNTY	24.51	18778	20.2:52.4:27.4	22.9	13.0	4.48	4967	19631
YanYuan CNTY	77.06	21800	19.6:62.8:17.6	46.2	26.8	7.71	6582	19988
DeChang CNTY	58.09	26958	24.6:47.8:27.6	31.3	31.4	4.84	10155	21756
HuiLi CNTY	205.67	47119	16.9:61.3:21.8	53.3	37.8	14.01	10107	21925
HuiDong CNTY	113.46	30915	29.8:50.3:19.9	41.5	33.8	8.56	9765	19946
NingNan CNTY	44.85	25482	27.5:45.3:27.2	32.4	28.4	3.85	9107	19882
PuGe CNTY	21.62	13707	32.5:36.3:31.2	19.1	20.2	1.40	5562	19331
BuTuo CNTY	23.93	14727	25.1:53.4:21.5	42.0	17.5	1.15	4704	19612
JinYang CNTY	24.25	14567	23.3:53.8:22.9	44.4	14.1	1.26	4659	19118
ZhaoJue CNTY	21.45	8684	39.0:27.6:33.4	13.7	19.2	1.15	4919	18523
XiDe CNTY	19.79	11960	28.7:41.6:29.7	30.9	22.7	1.09	4650	17459
MianNing CNTY	83.99	23964	20.0:55.4:24.6	32.3	35.6	5.81	8498	19821
YueXi CNTY	34.71	12951	29.0:42.7:28.3	30.3	24.4	2.31	5213	18816
GanLuo CNTY	23.77	12221	22.7:45.2:32.1	34.7	18.6	1.36	4597	18871
MeiGu CNTY	18.17	8354	38.9:29.7:31.4	15.1	7.9	1.41	4556	18680
LeiBo CNTY	45.53	20463	20.8:58.0:21.2	30.4	25.7	4.23	5258	18591

b. Data sources: Sichuan statistical yearbook 2014

3) Poverty in economy and ecology: Parts of liangshan prefecture, the fragile ecological environment resources are over.developed. Invalid development of land resources, the excessive exploitation of mineral resources, forest resources, excessive deforestation, make originally fragile ecological environment worse. And individual regions is in "poverty-ecological environment destruction -more poverty" cycle of poverty , the alleviation mission becomes harder and harder.

4) Poverty and disease are intertwined: The prominent characteristics of poverty in liangshan prefecture are the combination of poverty and disease, and it makes further deepen poverty. In poor areas, residents live relatively drab, and knowledge is relatively poor. Besides, people lack of ego to protect consciousness, healthy quality is relatively low. As the result, more and more people become poor with the reason of deseases.

Above all, liangshan prefecture belongs to the typical rich resource in poverty. For a long time, liangshan prefecture's poverty in economic poverty, ecological, cultural and social poverty are intertwined and influences each other leading to form a higher degree poverty circle. It has become the most key factor which restricts sustainable economic and social development. Liangshan prefecture became the largest and deepest poverty area in China.

IV.   THE MAIN FACTORS OF RESOURCE-RICH POVERTY IN LIANGSHAN PREFECTURE

A. Excessive Dependence on Resources

The main reason for the formation of resource-rich poverty in Liangshan Prefecture is that the resource management system is not perfect and the resources are over-reliant.

1) Correlation degree of resource industry is low: In 2013, there were only 6 industrial sectors with 41% of the industrial output in Liangshan Prefecture, all of which were resource-based industries. The industrial output value of the six industries was 77.4%, while the development of other industries was insufficient. Especially the equipment manufacturing industry, computers and other high value-added industries are zero output value, resource-based industrial chain is short, low degree of industrial correlation, the economic development of the drive is not strong.

2) Resource industry is weak in employment: In 2013, Liangshan industrial added value accounted for 40% of GDP, but the employment less than 10%. Development of resource industries and failed to promote labor force Liangshan, the driving force for employment is weak, and no revenue growth Liangshan Prefecture residents, shown in "Fig. 1".
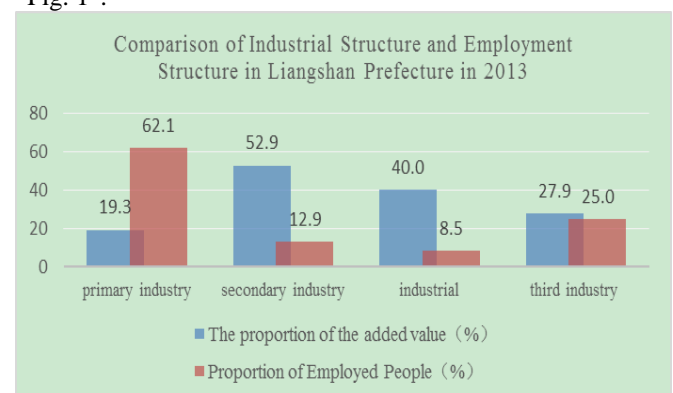

Fig. 1. Industry structure and employment structure is liangshan prefecture in 2013.

c. Data sources: Winds database

3) The resource industry has squeezed the investment of other industries and regions: Since 2003, Liangshan Prefecture's total fixed asset investment growth rate of 30%, is a typical investment-driven economic growth.

From the investment point of view, the focus of investment is based on hydropower development. 2003 - 2013 Liangshan Prefecture hydropower investment totaled 190.76 billion yuan, with an average annual growth rate of 29.7%, the largest state investment for the industry. From the investment point of view, state-owned investment is still the main investment. In 2013, state-owned investment accounted for 70.8% of the total investment in fixed assets in the whole areas.

From an investment areas point of view , the focus of Liangshan total fixed asset investment is the Anning River region accounted for 60% of its total investment in whole areas, but the other 11 countries, poverty counties accounted for only 32.3% of the total investment in the state, it makes investment more imbalance.

4) Resource development does not bring the deserved economic benefits: As a national important mineral resources and hydropower resources development base, Liangshan should be developed in the development of resources, however, due to China's resource tax system and resource income distribution system are not perfect,Liangshan rich resources did not reflect its real value, the invisible resource development revenue loss is more serious. In 2013, Liangshan state resource tax revenue is only 360 million yuan, accounting for only 3.3% of local revenue. During this time,the development of resources has exacerbated environmental pollution and ecological damage further.

B. Poverty Culture

1) The self-purification ability of national culture is weak: Poverty and disease are intertwined in Liangshan Prefecture, some residents lack of reasonable perception of foreign affairs,, and the self-purification ability of national culture is weak. And because of the residents lack of rational cognitive ability and screening ability ,most of them absorb the foreign culture totally, Making AIDS frequent, the poverty move exacerbate.

2) The low cultural quality and bad traditional customs: The sixth national census data shows that Liangshan state illiteracy rate reaches as high as 19.31%, respectively, higher than the national and provincial average of 14.43 and 12.76 percentage points. In the poor areas of Liangshan Prefecture, due to the low level of economic development, infrastructure, public services and urban construction lag, i is unable to attract and retain talent making the development of poor areas of basic population quality ackward, and further exacerbated poverty.

C. Disease

As the poverty-stricken areas are lagging behind, the medical level is backward. The poor people have poor housing, poor sanitation, relatively poor knowledge, relatively lack of self-protection awareness, high risk of disease and poor disease. These factors make these people face severe challenges.

Disease and the long-term presence of drugs swallowed the Liangshan state more than 20 years of poverty alleviation results making the status of Liangshan poverty has not been fundamentally improved. To control the AIDS epidemic, governments used a large number of funds to prevent and control disease instead of economic and social development. At the same time, the inadequate education, health and other public resources have been put into the prevention and control work, to a certain extent, it affects the regional economic and social development. With the rapid spread of AIDS, it makes Liangshan economic poverty, ecological poverty and AIDS intertwined, forming a development cycle, as shown in "Fig. 2".
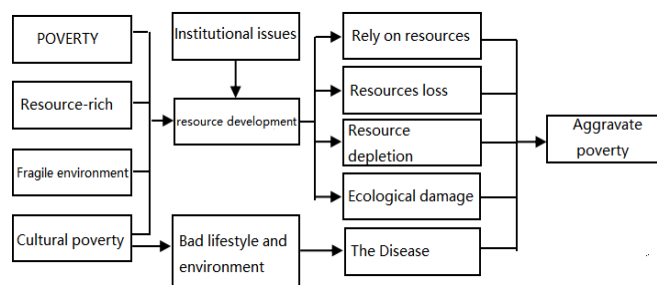

Fig. 2. Liangshan prefecture economic and social development cycle.

V. CONCLUSION

A. Accurately Identify Poverty and Implementate Precise Poverty Alleviation

Liangshan Prefecture is a concentrated area of resource-rich poverty-stricken areas, in which poor population widely distributed and the causes of poverty sre complex. First of all, more investments should be put into accurate diagnosis of poverty.[6]Secondly, on the basis of precision identification of poverty, the combination the precision poverty alleviation with the poverty and income gap of Liangshan Prefecture , formulate precision and poverty alleviation policies.

B. Adjust the Investment Structure and Accelerate the Construction of Public Services and Infrastructure

Infrastructure construction lag is a big problem of the sustainable development of Liangshan prefecture. To change the poverty of Liangshan prefecture, we must speed up the construction and improvement of traffic facilities. First of all, it should be adjusted infrastructure investment orientation and structure and reduce travel cost in the poor areas. Secondly, we should improve the infrastructure construction of Liangshan prefecture allowances. Third, aiming at the problem of information sharing of poor areas, it is important to increase investment and vigorously strengthen the

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6   Li Jia. China's continuous destitute areas in anti-poverty are reviewed [J].Guizhou academy of social sciences.2013, (12):87-91.

informatization construction in the poor areas to improve the poor families' use of modern media communication equipment such as radio and television, computer, phone and so on [7] .

C. Refactor Industrial System and Developing Ecological Industry

Liangshan prefecture is rich in ecological resources, which is a unique advantage in ecological industry development. It will be an important element of Liangshan prefecture economic development under the new normal. First, Liangshan prefecture has unique geography, climate, and light conditions, it can fully exert characteristic agriculture resources, and develop the modern ecological agriculture. Second, Liangshan prefecture has relatively complete minority local farming knowledge, the health, safety and low carbon development of ecological agriculture and animal husbandry industry and be promoted. Besides, Liangshan prefecture is rich in natural tourist resources and humane tourist resources, which can be leaded local poverty population to develop ecological tourism as well.

D. Accelerate the Development of Health and Education Career and Improve the Population Quality

Human resource is an important support to the development of Liangshan prefecture's economy. First of all, we should strengthen the research of poverty-stricken areas' population quality and structure. With a long-term developing goal, it needs to optimize the population development plan, and change the modern of birth from attention to increase the population quantity to population quality. Next is to step up education support and speed up the education career development. For the bad natural environment, poor education condition and lack of teachers, in order to carry out the long-distance education poverty alleviation, the policy support to school is important. It needs to implement free student tuition and accommodation, such as policy about compulsory education. Then Increase the investment to the construction of medical service system and strengthen health protection in Liangshan prefecture. Last it is also necessary to guide the national culture and social development to fit the environment protection to cultivate modern ecological culture.

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