

Study on Strategies for the Sustainable Development of Northern Part of Shaanxi Province Based on “Resource Curse”

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Abstract: According to traditional economic theory, natural resource is one of the vital driving force for economic growth, while there still exists a phenomenon of “resource curse” in most parts of China with abundant resources. This paper aims to analyze the phenomenon of “resource curse” and its existing problems in Yu Lin which is rich in coal resources and relies on the resource development economy. Besides, it puts forward solutions to deal with “resource curse” in northern part of Shaanxi Province from the perspective of sustainable development.

Introduction

According to the traditional theories of Economics and Factor Endowment (H-O Theory) in western countries, abundant natural resources can drive economic development. The former theory holds that essential productive factors consist of labor, capital, land which is represented by natural resources and the capability of entrepreneurs. The more the productive factors and the more abundant natural resources are, the more the total production will be. The latter theory holds that the countries with abundant resources can ensure the long-term economic growth under the comparative advantages based on resource factor endowment. However, Auty believes in his “Resource Curse” (1993) that the growth rate in countries with abundant ores is usually lower than those with deficient resources. And later, taking developing countries as typical examples, many scholars proved that the abundance of natural resources is negatively interrelated with economic growth. Some scholars in China, such as Xu Kangning, Zhao Fengjun, have taken relevant indicators to analyze some areas and provinces in China so as to prove that there indeed exists the phenomenon of “Resource Curse”.

Judgment on “Resource Curse” in Yu Lin (Northern Part of Shaanxi Province)

Yu Lin, rich in coal resources in northern part of Shaanxi Province, ranks second among those areas with coal production over 10 million tons. In order to have an easy access to the data, this paper, through comparing the production of raw coal in Yu Lin with the correlation to the amount of local production in Yu Lin with Bao Ji (a city ranking second in Shaanxi Province), its economic growth rate, aims to prove that there exists the phenomenon of “resource curse” in Yu Lin.

According to the Yu Lin statistical bulletin data, the GDP growth of Yu Lin in 2010—2015 are 18.3%, 15%, 12%, 8.8%, 9.0%, 4.3% respectively, and at the same period, the raw coal production in Yu Lin is 257,320,000 tons, 283,550,000 tons, 320,040,000 tons, 338,540,000 tons, 362,630,000 tons and 361,030,000 tons respectively. While according to the Bao Ji statistical bulletin data, the

GDP growth of Bao Ji in 2010—2015 are 10.3%, 14.5%, 15.1%, 13.0%, 10.8%, 10.4% respectively. It can be seen that the raw coal production in Yu Lin is going up year by year, but the economic growth rate is going down year by year, and the raw coal production in Yu Lin is negatively interrelated with its local production growth rate. Meanwhile, after 2012, the growth rate of Yu Lin had been lower than that of Bai Ji. As a rich area with natural resources, Yu Lin's economic growth rate is lower than the area with deficient resources, which proves that Yu Lin indeed exists the phenomenon of "resource curse".

Existing Problems of Economic Development in Yu Lin (Northern Part of Shaanxi Province) Based on "Resource Curse"

The economic development in the northern part of Shaanxi Province relies too much on natural resources, which leads to the instability of economic growth as a result of the massive price change of resources. The price is positively interrelated with the economic growth rate. Energy economy is the cornerstone of Yu Lin's economy, and it accounts for up to 70% of the whole industry economy. Therefore, Yu Lin's economic growth is closely related with the price of energy. Since 2000, the coal price in northern part of Shaanxi Province has been rising, and the highest price was over 1000 RMB per ton. Until 2012, the price had been down gradually, and in 2014, it had fallen to 240 RMB per ton. So the falling of coal price directly leads to the decrease of Yu Lin's economic growth.

Abundant resources in Yu Lin promote the change of its local economy and industrial structure, but its single industrial structure only has little influence on driving and leading other industries. Since 1995, Yu Lin has changed its economic structure from agriculture-dominated one to secondary industry-dominated one, so the percentage of first industry with more labor employment has been falling in the economic development. Take the data in 2013 as an example, the percentage of three industries is 4.9%, 69.8% and 25.3% respectively. The secondary industry had grown up in a fast speed from 2001 to 2013. Energy-oriented industries, such as the development of coal, oil and gas, oil processing and oil refining industry has taken up 90% of the production of industry. However, the third industry remains silently. Compared with Ordos, Yu Lin relies much more on natural resources.

Energy is the driving force in the developing the northern part of Shaanxi Province. People excessively exploiting energy to gain more economic benefits, which leads to environmental deterioration. Till June of 2015, there were 266 coal enterprises in Yu Lin with the annual production of over 360 million tons. Excessive exploitation of energy leads to such ecological environmental problems as cave-ins, aquifer damage and surface water seepage, etc. In Yu Lin, the goaf area caused in the process of underground mining and coal exploitation is about more than 400 square kilometers. Now it is rising annually with 30 square kilometers, which leads to the cave-in area of more than 90 square kilometers. The total area of mining and the destroyed forest land adds up to 130 square kilometers. Meanwhile, influenced by the development of coal and mining, the underground water level has been significantly decreased, which prolongs the exchange path of underground water and surface water. By doing so, it will decrease the supply of underground water to the surface and to the surrounding rivers. The underground water level in the Coal and mining are in Fu Gu, Shen Mu and Yu Yang has been obviously decreasing with more than 10 wells leaking, silt dam dried up, which leads to the shortage of drinking water.

It is predicted that the production of coal and mine is about 280 billion tons, among them, the proven reserve of 150 billion tons accounts for one fifth of the whole national reserves. However, the unbalanced distribution of coal and ores leads to the faster economic development of those areas with abundant natural resources as coal and ore like Yu Yang, Shen Mu, Fu Gu, Heng Shan, Jing

Bian, Ding Bian, and the fact that the economic development becomes slow in those areas with deficient resources.

Take the data in 2013 as an example, the GDP in Shen Mu and Wu Bao is about 92 billion RMB and 1.54 billion RMB respectively. In 2013, the disposable income of residents in Fu Gu and Zi Zhou is 31.5 thousand RMB and 25.2 thousand RMB. Farmer per capita net income is 13 thousand RMB and 7.1 thousand RMB. The per capita gross product in Shen Mu, Fu Gu, Jing Bian, Jia Xian is 32737.03 dollars, 6921.55 dollars, 15527.68 dollars and 2809.85 dollars respectively. Up to 2013, the per capita gross product of half of the people in Yu Lin City is still lower than the gross national product level.

Strategies to Improve Economic Development in Yu Lin (Northern Part of Shaanxi Province) Based on “Resource Curse”

In northern part of Shaanxi Province, exploitation of coal and ore just boosts the fast economic development of local areas, but too much reliance on natural resources will lead to the falling economy. Therefore, the future development in northern part of Shaanxi Province needs to change the energy-oriented industry structure.

Substitute industry is a newly emerging industry different from the original energy industries, so it will essentially get rid of the reliance on natural resources. Lorraine in France is a typical and successful example in doing so. Lorraine is an old industry base for coal mining and ore exploitation in France. After WWII, because resource mining faces depletion and changes in coal prices in international markets, the local coal and ore industry is declining in a severe condition, resulting to the falling of economy. French government has a policy to boost the development of new industries like automobile, electronics and plastics manufacturing, which attracts many automobile companies like Renault S.A. to invest in starting up factories, leading to fast development of many other supporting enterprises. Thirty years later, substitute industries in Lorraine help it become a newly emerged industrial area represented by high-tech industry, synthetic technology industry, which has transformed the industry structure from traditional mining of coal, ore and iron to the new one.

The northern part of Shaanxi Province relies too much on the exploitation of natural resources, so it's really hard to get rid of the extensive growth model in a short period. However, if the local government does not change this model of economic growth and quicken the regulation of industry structure, it would be impossible to get rid of resource curse. Therefore, the area can gain money by relying on developing energy industry. In accordance with the requirements of “high starting point, high technology and high added value, the local government should develop its local special and potential industries. On the base of the present industries, the industry chain should be expanded to boost other relevant industries like advanced equipment manufacturing of coal, oil and gas, supporting processing, high-tech industries and logistics transportation. Meanwhile, tourist industry, ecological agriculture, environmental industry and industries about farming products processing should be fully developed so as to carry out a sustainable development strategy. Besides, the local government should promote the diversification of some large-scale enterprises in the form or establish suitable local policies to encourage the small and medium-sized enterprises, or actively promote interregional cooperation so as to involve in a division cooperation system of large enterprises group and advantage enterprises.

The ecological system has been damaged severely in northern part of Shaanxi Province, so according to the principle of “Who Benefits, who Compensates” in Shaanxi Province Coal Oil Natural Gas Development Environmental Protection Regulations, it should have required those

beneficiary enterprises should make compensation for the damaged ecology, but there are not some obvious compensation standards and means, which leads to the fact that after the environment was damaged, enterprises only need to assume the very little fine. And it will never essentially change the enterprise predatory mining side bear a few high penalty style. Therefore, the local government should levy taxes on energy on the basis of clarifying property system after balancing benefits of all parties so as to make compensation for losses caused by one-way outflow of resources and damage to the local ecological system. Besides, the local government should gain capital for the development and transformation of local industries in the benefits of developing coal and ores, and by the way to increase fund support for local special industries and sustainable industries. Meanwhile, when dealing with the relationship between the central government and local government, we can increase more involvement of central enterprises in developing local economy, increase the percentage of low income left to local resource exploitation, improve resource recovery rate and extend resource depletion time.

As the critical factor for economic growth, human labor can be easily neglected in the production with primary products as the key in Yu Lin. Because the expansion of departments for primary industries does not need human labors with great skills, energy economy attracts more and more human labors with poor education including illiteracy and half-illiteracy to work in departments for primary industries like coal and ore mining. This has two influences. Firstly, it will extrude high-tech talents and make them flow to more proper places in which they can fully develop their own potentials, which leads to the declining of other industries with high-tech talents as the key productive factor like manufacturing in Yu Lin, and contains the economic growth caused by technology diffusion effect. Secondly, it will extrude technology innovation and cause the flow of money to primary industries for the increasing energy exploitation's extrusion effect on technology innovation. The above two aspects eventually contribute to the economic growth stamina in Yu Lin. Therefore, Yu Lin must strengthen the training of human labors and investment level, accelerate the innovation of science and technology so as to promote the enhancement of human resources, attract talents with preferential treatment, fully tap the existing potential of human resources. The Yulin government must increase investment in education in these areas and improve the unreasonable education investment system with focus on primary education and the training and re-education for ordinary workers, and finally combine the industry with the development of human resources to attract foreign talents with high technology and those who have professional knowledge so as to accumulate precious human talents.

Conclusion

Although abundant natural resources often easily exert negative influence on economic growth, this kind of "curse" is not unbreakable. "Resource Curse" is only a kind of phenomenon of unreasonable utilization of resources, so we must have a deeper understanding of the negative influence on economy when developing coal resources, based on which, some effective administrative measures and regulative means should be taken to promote the economic development. What's more, some policies, systems and supervising means should be established to stop the further expansion of this "Curse" effect.

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Loaning in Northern Part of Shaanxi Province (14JK2039)

Reference

- [1] Zhao Feng Jun. On the Literature Review of “Resource Curse”[J]. Journal of Industrial and Commercial University of Chong Qing, West Forum, 2006(2):8-12
- [2] Gao Jie. On the Sustainable Development of Resource-oriented Cities from the Perspective of “Resource Curse”[J]. Resource and Industry, 2011(6):1-6
- [3] Xiong Shangao, Li Hong Yuan. Analysis of Strategies for the Sustainable Development of Resource-oriented City Yu Lin[J]. Development of China, 2013(2):13-17