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# Countermeasures for Stressing Industry but Disregarding Agriculture in Resource-based Counties: A Case Study of Fugu County in Shaanxi Province

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**Abstract** Industry re-feeding agriculture is an important strategy to boost agricultural modernization<sup>[1]</sup>. As to resource-based regions, the key thing is the way to implement the strategy of resource-based industry re-feeding agriculture. In fact, as a typical resource-based county, Fugu County realizes its quick economic development mainly depending on the local resources and industrial development. And the agricultural development is relatively lagging in the county, more people are beginning to denote themselves to industrial development due to high return brought by resource exploitation, which results that the contradiction between industry and agriculture is gradually prominent in the county. Therefore, it is necessary to seek for a new way to develop industry and agriculture in resource-based counties. This article mainly introduces the mode and method of "industry re-feeding agriculture" in Fugu County, analyzes and summarizes the implementation effects and achievements of modes as well as discusses the problems produced in the course of policy implementation and tries to find countermeasures to coordinate the contradiction between industry and agriculture, then further discuss the development perspective of industry and agriculture in Fugu County.

**Key words** Resource-based county, Contradiction between industry and agriculture, Industry re-feeding agriculture

## 1 "Fugu mode" and current situation of industrial and agricultural development

In resource-based counties, the contradiction between industry and agriculture is always a big and difficult problem which mainly shows that the relatively lagging agriculture conflicts with the rapidly developed industry based on the resources such as coal. Fugu County of Shaanxi Province, located in transition zone of windy desert area in Inner Mongolia and loess plateau in North Shaanxi Province, is rich in resources, and it realizes rapid development of economy mainly depending on local resources and industrial development. And its agriculture is still in the stage of depending on natural conditions and relying on the rain to realize output increase. To solve this problem, the government of Fugu County carried out many targeted policies to promote agricultural development and coordinate the contradiction between industry and agriculture. Since the 17th National Congress of the CPC, the whole county, by taking the achievement of people's common weal as the goal and scientific outlook of development as the guide, has actively promoted the construction of urban-rural integration, organized and carried out "three – action" strategies – urban – driving, industry-motivating and society joint actuating, perfected "four – supporting mechanisms" – governmental subsidy, department helping, mass self-helping and society sponsoring, rationally allocated social resources, coordinated urban and rural development, cultivated knowledge-based farmers and vigorously developed oper-

ation policy of agriculture industrialization – "one village, one product; one town, one industry; one region, one enterprise". By the actions of optimizing urban and rural layout continuously as well as increasing inclining degree of public finance expenditures to the rural, the integration progress of urban and rural economy is effectively accelerated and the circulation flow and coordinative development of urban and rural economy are also promoted. In 2007, the government of Fugu implemented "Double Hundred" project which took "one hundred authority units help the same quantity of villages, one hundred industrial and mining enterprises led the same quantity of villages" as the main content, guided the private enterprises to invest the funds to rural areas, encouraged the private enterprises being involved in new rural construction and participating in agricultural comprehensive development and agricultural modernization construction.

In recent years, the agriculture has been driven to be in full development through the perfect implementation of government policy, and at the same time, the industry developed rapidly. The total value of agricultural output realized doubling goal, increasing to 617.6 million yuan in 2010 from 183.78 million yuan in 2005, in which, agricultural output value increased to 404.17 million yuan from 178.28 million yuan, accounting for 65.44% in total value compared with the previous proportion of 97.01%; the percentage of forestry, animal husbandry and fishery had a slight increase. Structural adjustment generated an obvious effect, the output of agriculture, forestry, animal husbandry, sideline occupations and fishery increased steadily and developed harmoniously. Rural per capita income increased to 7 786 yuan in 2010 from 2 125 yuan in 2006. The planting area was 323.93 million m<sup>2</sup> in the whole year, and the grain output was 73 456 metric tons.

Received: November 28, 2012 Accepted: February 18, 2013

Supported by City and School Joint Key Project for Scientific Measurement Development and Analysis in Yulin City (yl2011158).

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Meanwhile, the government invested 165 million yuan in this year to construct 18 modern and characteristic agricultural plots in the whole county<sup>[2]</sup>. In these five years, the primary industry developed rapidly in Fugu County and policy implementation received a remarkable effect, which makes agriculture, forestry and animal husbandry develop harmoniously.

## 2 Contradiction remaining between industry and agriculture

Though the agriculture in Fugu County developed well in recent years, some problems caused by imbalanced development of industry and agriculture have not been solved properly but got serious increasingly.

### 2.1 Agricultural foundation broke by willful industrial mining, income gap widens

For industry development relies on intensive mining of mineral resources, some industrial enterprises are with high pollution and ecological destructive nature. And some mining sites occupy cultivated land for the survival of agriculture, which leads some local farmers to suffer from the problems including building crack, ground collapse, destroy of basic farmland, breakage of rural road and water difficulties. Then when the basic living demand fails to be met, the farmers have to ask for enterprises and government to solve the problems. The immediate method is to negotiate with the enterprises and claim for compensation. If their claims fail to be met, the farmers may adopt extreme methods including gathering a crowd to engage in an affray and disturbing production, thus deepening the contradiction between coal enterprises and the farmers. On the other hand, some bosses made great fortune overnight due to price rising of oil and natural gas, and many bosses gathering fortune with these resources possessed hundreds of million or billions of wealth, but per capita income for 174 000 farmers was still below 10 000 yuan in 2010. Gap between the rich and the poor is widened and the bread – and-butter issue of farmers is difficult to be solved, thus resulting social disharmony invisibly, making the contradiction between farmers and coal enterprise bosses grow increasingly and social stability face with a severe test.

### 2.2 Input gap between industry and agriculture is too big and out of balance seriously

Fugu County, a typical industrial county, has become a first-class coal – electricity energy – carrying base, the first thermal power county and the largest production base of calcium carbide and magnesium metal in the whole country relying on its rich coal resources. By 2010, the gross industrial output value reached 37.117 billion yuan. However, on the other hand, the agricultural development is relatively slow and over one third of young and middle-aged people are out to work in the whole country. Only in 2010, the gross annual agricultural output value reached 620 million yuan. From the experiences of world economic development, we know when the income distribution ratio of workers and farmers is maintained at about 2.5:1, it is most conducive to develop all industries harmoniously and operate national economy smoothly. But the income distribu-

tion ratio of workers and farmers in Fugu County is inharmonious which even touched 60:1 in 2010, its ratio of workers and farmers is out of balance seriously.

### 2.3 Agricultural development depends on government and private enterprises excessively

In the past, "three rural" issue in Fugu County always restricted the development of county economy. But in recent years, the local government has realized the importance of "three rural" issue, thus increasing the input intensity continuously, innovating development mode and connecting the agricultural development with private enterprises. Meanwhile, the government encouraged more people becoming prosperous first in various industries engaging in agricultural development, so as to make enterprises and agriculture enjoy common wealth and glory. However, excessive dependence on government finance and private capital will have an adverse effect on agricultural development. By 2011, agricultural departments of the government have invested 5.795 billion yuan for agricultural development, among which, the input in 2010 reached 1.745 billion yuan; and farmers should also take advantage of their own potential to achieve prosperity, enormous development must not be achieved by the development mode of "waiting, depending and asking for".

## 3 Proposals on coordination with the contradiction between industry and agriculture

The strategies of industry re-feeding agriculture and urban areas supporting rural areas are fundamental for the relationship between agriculture and national economy<sup>[3]</sup>. To relieve or even completely remove the contradiction between industry and agriculture, it is necessary to realize full mobilization and coordinated development of industry and agriculture, take "regarding both industry and agriculture as equally important" as the guide and provide planning guide for the development of industry and agriculture.

**3.1 Proposals on industrial planning guide** (1) Financing funds for the development of private enterprises mainly consist of private financing and bank credit capital. Mining qualification and capability of private enterprises should be examined seriously, so as to use the capital with a purpose, allocate and utilize it designedly, but not to issue it at will. The funds are refused to be provided to the enterprises with high pollution, high energy consumption and poor internal quality which will break ecological environment seriously and produced most generic products and less high quality products. In case that bank's credit issuance fails to comply with national credit policy, the credit funds supplied by bank will squander once the enterprise closes down. We should utilize the limited funds rationally, maximize the efficiency of the fixed quantity funds and refuse to invest a large amount of funds to the private enterprises failing to acquire mining qualification. We should also offer a certain compensation for economic structure adjustment to output areas of primary products including grain and energy<sup>[4]</sup>. (2) Resources are on the hands of few large state-owned enterprises and distribution policy of mining right is not completely conforming with the current situation of Fugu County,

which results a small number of private enterprises with capability, funds and mining technologies not acquiring mining rights, thus leading the mining right being transferred with high price. In response to this problem, the county government should implement policies applicable for current situation of local mining explorations and regulate mining industrial market in Fugu County according to the local situation of the county on the basis of the conformity with Mining Resources Law and relevant management methods for mining right. (3) The industrial products produced from the local magnesium ore and silicon ore belong to the open primary products, it is very pity that its value-added profits are not high or even zero. In order to realize high-end development of industrial enterprises in Fugu County, firstly, we must support the private enterprises to continue to enhance science and technical input and get the breakthrough in the aspect of depending on importing, but not follow with others aimlessly. Secondly, we must support private enterprises to build up their own technical research and development institutes, accelerate the research and development progress of new products and improve innovation ability and international competitive ability. Then, we also need to encourage private enterprises to actively reference international standards and advanced domestic standards, so as to improve the quality of products. Combine mining with production, lead the private enterprises into industrialization development, guide them to change from single traditional industry to integrated industry comprising of research and development, production, processing and service as well as utilize new technology and process to process and cast ore, so as to add its value-added and relieve ecological environment deterioration caused by excessive mining of the resources.

**3.2 Proposals on planning guide to the mode of "industry re-feeding agriculture"** On one hand, seen from the policies set out and implemented by the government, agricultural development has made remarkable achievements, for example, after the launching of "Double Hundred" project, the enterprises participating in poverty alleviation has changed to help a group from help an individual, and the farmers, as economic subject in rural society, begins to transform their attitude towards the enterprises. Firstly, some private entrepreneurs input their accumulated incomes acquired in industry to agricultural production to make planting and harvesting technicalization, so as to reduce work time of the farmers and improve agricultural productivity largely. Secondly, the enterprises utilize benefit-sharing mechanism to relieve the contradiction of land circulation<sup>[5]</sup>. Thirdly, enterprises participate in agricultural production in various ways, which can not only do favor of output increase of the local agriculture, but can also make the enterprises and the farmers become interests community. Farmers can also share the interests with the enterprises by various ways, change their relationship to internal relation and make themselves interact with the enterprises positively. Continuous implementation of the effective policy will make the effects prominent increasingly. At the same time, we can take relevant policies in other resource-based regions for reference, such as

Xiangning County in Shanxi Province. Xiangning County is also a resource-based county. In 2004, the government of this county set out the Implementation Proposals on the Practice of the activities of "one mine, one industry and one utility" based on the method of industry re-feeding agriculture and required all Xiangning-based coal mining enterprises to draw 30 yuan from the profits contributed by each ton of coal, so as to support the agricultural development. During the implementation period of the policy, the investment made by coal enterprises for rural public welfare establishments boosts the new rural construction and agricultural modernization, thus forming the Xiangning mode of "coal industry re-feeding agriculture"<sup>[6]</sup>. We can reference and learn Xiangning mode and connect industrial production with agricultural development tightly. In this mode, the supporting ability of the enterprise is proportional to its output and profits, and this mode is a double-win policy for the enterprise can also be advertised well. On the other hand, we can develop agriculture with industrialization concept, so as to realize large-scale operation of the agriculture as soon as possible<sup>[7]</sup>. We should associate industry with agriculture on the basis of industrial support in new era, establish some industrial and agricultural joint or linking enterprises by utilizing the workability of agricultural products to make preliminary or deep processing of the agricultural products, then try to establish brand of local characteristic products gradually. By doing this, we can not only find investment orientation for industrial enterprises, solve the problem of input imbalance between industrial and agricultural financial input in certain extent as well as realize large-scale production and enterprization of agricultural products, but also can give a full play to comprehensive driving effect of the enterprises in certain extent, establish close and long-term relationship between enterprise and rural area and form interests community, so as to achieve the purposes of industry re-feeding agriculture and mutual benefit and win-win result between villages and enterprises<sup>[8]</sup>. For the industrial enterprises supporting agricultural development, the government should encourage and support them, increase the financial inputs to them and make propaganda for them in certain extent to acquire financing and non-government credit.

**3.3 Proposals on agricultural planning guide** Firstly, we can start with township medical treatment, health and education. We should take transportation, communication, medical and education as the point of departure and construct more rural production and service infrastructures. Among which, highway and township road construction can not only save travel time for farmers, but can assure the invested facilities and the transported goods to be delivered in shorter time, thus attracting industrial and commercial enterprises to invest. Then we should set up communication facilities vigorously; expand the coverage of TV and radio to make the farmers be aware of the outside world immediately, make them be capable of receiving information through TV and radio, so as to increase their knowledge reserve and cultivate their ability to receive information in a certain extent. Next, we should promote

the construction of rural cooperative medical care system and assure its coverage, in order to make the farmers recognize the importance of medical security, enlarge the number of people participating in medical insurance, avoid the farmers not curing their diseases and returning poverty due to diseases. Finally, we should put rural nine-year compulsory education into practice completely, exempt primary and junior middle school students in rural areas from tuition and fees, books fees and so on through fiscal subsidies and give the poor children being admitted to a university a certain amount of subsidies, so as to make the farmers arm themselves with knowledge and get rid of poverty. Then, we can take the farmers as the point of departure. Provide sales market for agricultural products as much as possible and enlarge sales ways for farmers, these two ways are also a kind of indirect way of industry re-feeding agriculture<sup>[9]</sup>; strive to develop main agricultural crops. In addition, for the unit output and technological content of agricultural products are both low, the government should support the agricultural development with economic policies and launch training courses to instruct agricultural technology and knowledge from other areas to farmers, in order to enhance their comprehensive quality. The government can also provide high-quality and new seedlings to farmers at low price and send technical personnel to instruct the farmers so as to improve their scientific cultivation ability and scientific breeding ability and increase unit output of agricultural products; cultivate knowledge-based farmers, encourage farmers to start their own business and develop private economy. Meanwhile, the government should set out some targeted preferential policies to let the farmers possessing a certain capital and technology to play their own talents as much as possible and mobilize the agricultural and rural development.

#### 4 Development prospect of industry and agriculture in resource-based regions

By tracing the source, we find the reasons for stressing industry but disregarding agriculture are that economic development depends on industry excessively in resource-based regions, in which the main reasons include mining convenience for mineral resources and huge profits. Comparatively speaking, people are more inclined to industrial development due to low return and long circle of agriculture, so agricultural development faced with bottlenecks. However, with the increasingly excessive mining of resources, the economic macro development in resource-based regions fails to comply with the national policy of sustainable development, therefore, we should seek for new way for industrial and agricultural development in resource-based counties. The targets for agricultural development in western resource-rich areas are to improve market competitive ability of agriculture and farmers' income. And the

premise and basis for the improvement of market competitive ability and farmers' income lie in industry transformation. To conduct industry transformation, firstly, we should transform technical base of the industry, which means reforming the existing industrial system and establish industrial ecosystem for western resources development<sup>[10]</sup>. Resources are not inexhaustible, the single resource-dependent mode can not help the permanent development of economy and do favor of the health development of economy. According to this, some resource-based enterprises are forced to be in process of transforming or intend to transform. These enterprises invest the profits got from resources mining to other fields, with agriculture as the main investment direction. As to the agricultural development in counties, this is a great opportunity. Therefore, the government of Fugu County should support the resource-based enterprises to realize transformation and help balancing the development of agriculture and industry in the future. By doing this, it can find investment direction for a part of industrial idle funds and provide the agriculture with fund resources, thus promoting the agricultural development greatly.

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