



# The Theoretic Base and Implementation Condition of the Great-leap-forward Development: Taking Undeveloped Regions of Henan Provincial for Examples

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## Abstract

The theoretical and practical researches about the great-leap-development in foreign and domestic undeveloped regions indicate that the great-leap-development in undeveloped regions needs to implement three spans such as concept, technology and system. Through about 30 years' economic construction since reform and opening-up, the undeveloped regions in Henan Province have been provided with basic conditions to realize the great-leap-forward development in many aspects such as idea concept, economic base, policy environment and basic establishment.

**Keywords:** Great-leap-forward development, Theoretic base, Implementation condition, Henan Province

In 109 counties of Henan Province, 44 counties are national or provincial defined poor counties and the proportion of defined poor counties achieves 40%. For the regional distribution, above 50% of poor counties are located in the Huanghuai Plain in the southeast of Henan, which form the "local sinking" in the growing plain, and they have been the "soft rib" of the harmonious development of city and village in Henan Province. So we will face a series of problems such as "whether the undeveloped regions in Henan can realize the great-leap-forward development?", "whether do the theoretical bases exist?" and "what conditions are needed?" And these problems will be studied in this article.

## 1. Theoretical base and practical example of the great-leap-forward development

### 1.1 Theoretical base of the great-leap-forward development

According to the viewpoint of materialism, the development of things goes forward like wave or helix, which is the general law for the development of things, but the materialism doesn't deny the particularity in the development of things. For the universality of the development of things, it implies two basic suppositions, and one is the development of things is in the new growth stage, and the other one is the balance function of environmental variable. And if these two suppositions are in special status, so the development of things may form another development mode, i.e. the great-leap-forward development.

At present, the great-leap-forward development has not a uniform concept. Generally speaking, the so-called great-leap-forward development is that under special historical condition, the undeveloped region utilizes some advantages such as the special gift of resource, regional and location dominance, direction and objective encouragement effect of developed regions to directly adopt a sort of supernormal economic development mode which can complete the objective and tasks of social development in a short term which needs to be completed in a long term for the developed region. And in the space, the mode can exceed the original resource accumulation of some technologies and capitals in developed regions, and adopt up to date technology to implement the span strategy from "undeveloped" to "developed" according to the conditions. Aiming at the problem whether this mode is a sort of "nice dream" or the realism which can be formed, we need study from theoretical layer and practical layer.

#### 1.1.1 Theory of the late-developing advantage

For the initial cognition of the late-developing advantage, domestic scholars thought that the theory about absolute advantage and relative advantage was the forerunner of the theory of the late-developing advantage which was first described by the British classic economist Adam Smith and David Ricardo (Li, 2000, p. 22-24 & Jin, 2000, p. 45-46). After that, economists studied the formation reason and mechanism of the late-developing advantage from many aspects such as resource gift, location, system and industrial organization, but the systematic theory about the late-developing advantage was created by US socialist M. Levy and economic historian Gerschenkron.

Levy thought that the late-developing advantage was embodied in five aspects, (1) the modernization process of undeveloped region was not a new domain any more, (2) the undeveloped region could use formers' experiences and lessons for references, (3) the undeveloped region could leap over some early investment and accumulation stages, (4) the undeveloped region could be encouraged by formers, (5) the undeveloped region might be helped and supported by formers (M. Levy, 1988, p. 8-12). At the same time, when discussing the late-developing advantage, Levy also expatiated on the late-developing disadvantage and the problem whether the great-leap-forward development could be realized depended on how the undeveloped regions grasp the opportunity and draw on the advantages and avoid disadvantages.

In Gerschenkron's book of "Economic Lag as Viewed from History" (Xie, 2002, P. 828-848), he studied the modernization process of undeveloped countries from the layer of country, and he thought the undeveloped countries mainly had two advantages, and one was that undeveloped countries could derive from development results from developed countries and learn social experiences from their development mistakes, and the other was that the leaders and intellectuals possessed lagged consciousnesses which could be ensure the supernormal development for their countries. As same as Levy, Gerschenkron thought that this late-developing advantage was only potential, and it must fulfill the condition to translating potential advantage into realism.

#### 1.1.2 Harmonious relationship theory of human and environment

Zhu Chuan'geng et al studied the development of undeveloped region from the relationship between human and environment, and put forward the harmonious relationship theory of human and environment. On the one hand, the theory realized the important influencing function of natural environment to the regional economic character, and on the other hand, the theory also thought the human could be possible to cognate, utilize and reconstruct the natural environment, and this possibility was decided by the social productivity level, science and technology ability and human dominant. Only the harmony between human and nature could create the optimal environment for the human development. The utilization of the regional economic development condition and the development objective of regional economic should benefit promoting the harmony of regional human and environment relationship (Zhu, 1995, p. 1-2).

#### 1.1.3 Theory of counter-gradient process development

Liu Songmao (2001) put forward the counter-gradient process theory to realize the great-leap-forward development in the undeveloped regions in his book of "Counter-gradient Process Development Theory". He thought that the gradient process theory ignored the "regional difference and industrial design" which could not form the reasonable division and association in and out the region. The undeveloped regions always possess special undeveloped resources and geographical predominance. And depending on these advantages, the economic development of undeveloped regions might not develop according to the sequence of the economic level gradient from top to bottom, and they could realize the great-leap-forward development along the counter-gradient direction.

### 1.2 Successful examples of the great-leap-forward development in undeveloped regions

#### 1.2.1 The great-leap-forward development example of US Utah

US Utah is located in the middle and west of US, and its geographical status is similar to Chinese northwest provinces which have many mountains, and 35% of soils are desert and droughty regions, and the climate is similar to Chinese Tibet. In the past, Utah had undeveloped industry, and it belonged to traditional agricultural regions and mine regions which were poor and undeveloped. But since 1990s, Utah established the development strategy according to local conditions, developed multiple economies, drove the economic development by the high science and technology, and made its economy quickly grow up, and up to the late of 1997, Utah had possessed about 2600 high science and technology companies, and the Saline region which was the "growth pole" had 2120 companies, and the Utah became into the mirror of the great-leap-forward development in undeveloped region (Xue, 2000, p. 5-6).

#### 1.2.2 The great-leap-forward development example of German Bavaria

Fifty years ago, when the Federal Republic of Germany was founded, the Bavaria was the typical agricultural state which had deficient resource and undeveloped industry and its half of employment population was farmers. However, through fifty year's development, the economy of Bavaria develops very quickly, and it has been the state which has the best economic strength. The success of Bavaria owes to the investment of human capital and the construction of basic establishment. In 1946, Bavaria first enacted the law which the public schools and vocational schools exempted all charges. Its education payout was always higher than the increase of other charges. To improve the investment environment, Bavaria quickened the construction of the traffic basic establishment. Up to 2000, the highway in the state had achieved 137 thousands kilometers which could directly link with the seaport of the Med. Its railway has achieved above 6400 kilometers which occupied 1/6 of the total length of the German railway (Dai, 2000, p. 7-8).

### 1.2.3 The great-leap-forward development example of Yongcheng City

Yongcheng City is located in the boundaries of Henan, Shandong, Anhui and Jiangsu, and in the middle and late of 1990s, its economy developed quickly and realized the great-leap-forward development. In 2004, the production gross of the city had exceeded ten millions Yuan and achieved 10.3 billion Yuan which increased above 3 billions Yuan (25.9%) than 7.078 billions Yuan in 2003, and the general financial income was 0.30696 billion Yuan which was an increase of 44.28% over the same period last year (Henan Provincial Statistical Bureau, 2003, p. 663-695, p. 623-655). The comprehensive economic strength had gone into the top 200 list of national counties (cities) and the top 20 list of Henan Province.

According to the resource advantage, Yongcheng mainly depends on the coal industry, flour processing industry and the agricultural industrialization. Yongcheng has formed the original coal production ability of 10000 thousand tons, and it is continually spread the coal industry chain and enhance the product value added. At present, Yongcheng has processed 183 flour processing enterprises, and the yearly processing ability can achieve 3 billions kilogram. There are about 20 sorts of flour, and the largest flour processing enterprise can produce 800 tons in one day. The market share of Yongcheng flour in Shanghai Pudong can achieve 60%. In 2004, Yongcheng implemented the project of “five top 10 bases” to fully develop the production of non-social-effects-of-pollution farm products. Four products including watermelon, pear, capsicum and Chinese cabbage has passed the producing area authentication and brand authentication of the Ministry of Agriculture. The planting area of poplar in Yongcheng has achieved 100 thousand acres which have promoted about 300 wood machining enterprises.

### 1.2.4 The great-leap-forward development example of Xiangcheng City

Xiangcheng is located in the hinterland of the “sinking area” in the middle of Henan Province, and it has not the special advantage of resource gift. The proportion of farming population is higher than the average level of the whole province. By right of its own particular development idea, the mode of “plate economy”, in 2003, its comprehensive economic strength had gone into the top 20 list in all counties of Henan Province. In 2004, its GDP per capita achieved 7011 Yuan and increased 19.7% over the same period of last year (Henan Provincial Statistical Bureau, 2005, p. 220-222).

The so-called “plate economy” is to constitute policies, integrate resources, assemble plates and exert the interactive effect of the enterprise clusters, and form “economic plate” according to the region aiming at the tens of thousands civil economic entities which are founded in the society. At present, the city has formed four largest industrial groups including farming machine fittings, costume production, leather coat and shoe manufacture and six largest production regions which could fully exert the corporate clustering advantages of “plate economy”. The leather production and sales quantity of Xiangcheng has occupied 1/4 of the national market sharing, and the costume production and sales quantity has occupied 1/8 of the whole country.

Making a comprehensive view on the theoretical researches and the practices about the great-leap-forward development in undeveloped regions, we think that because the undeveloped region has the late-developing advantage, so it is completely possible to implement the counter-gradient process strategy and realize the great-leap-forward development.

## 2. General rules of the great-leap-development in undeveloped regions

The great-leap-forward development of undeveloped region starts from the reform of the concept, and “Adversity leads to prosperity” will form the span of the concept, and the location variance, human capital variance and policy variance will be produced in the social development, and we should look for the opportunity of development to realize the technological span and system span and implement the objective spanning from undeveloped region to developed region.

### 2.1 Span of concept

Lagged productivity always companies with lagged production concepts. When unbalance occurs in the development of region, people in undeveloped region will be encouraged by the objective guidance of developed region and produce the span of concepts, which is “Adversity leads to prosperity”. The basic implementation condition of concept span is the unbalance of regional development which certainly induce the conflicts of concept in the undeveloped region, and the result of conflict will induce the innovation and span of concept, and that is the base of the great-leap-forward development.

### 2.2 Span of technology

The bottle-neck factor to restrain the great-leap-forward development in undeveloped region is always the deficiency of technology and capital. Because of the low development level and lagged economic resource development, the undeveloped region is easy to show its own resource predominance and labor predominance, and it can introduce advanced technology and capitals to couple local resource and labor and produce new productivity which can span the long-term cycle of technology can capital original accumulation in the developed region and reduce the time and space term between undeveloped region and developed region, and that is the support of the great-leap-forward development.

### 2.3 Span of system

New system economics thinks that the system is one of important factors for the economic growth, and when the economic development level is higher, and the system factor will influence the economic growth longer. The economic system of the undeveloped region is decided by the lagged productivity of the undeveloped region, and the introductions of new technology, new production mode and new enterprise structure in the developed region certainly requires the transformation of economic system to adapt the requirement of the new productivity. And the transformation of the economic system will break through the traditional mode of gradual development, and it is the great-leap-forward development which is directly designed for the newly introduced production factors. The system span offers feasible system environment, system guarantee and durative drives for the economic growth and the great-leap-forward development in undeveloped region. Without the system span, even if the undeveloped region introduces capitals and technology, the great-leap-forward development can not be sustainable, and that is the guarantee of the great-leap-forward development.

### 3. Implementation conditions of the great-leap-forward development in undeveloped regions: taking Henan Province for the example

The great-leap-forward development of undeveloped region needs some conditions such as idea base, economic base, policy environment and basic establishment.

#### 3.1 Idea base

Because of historical location factors, farmers are binding with traditional ideas seriously and their ideas are conservative. After reform and opening-up, farmers' ideas of Henan are changing under the influences of interior and exterior factors, and traditional and closed rural complex in farmers' idea is gradually fading, and they are looking for their own development space in a larger range.

"Labor economy" promotes the transformation of farmers' idea. Xinyang City is located in the south of Henan Province, and it administers 9 counties, and 8 counties of them are national or provincial defined poor county, and the city is one of the most poor cities in Henan. In recent years, depending on the labor economy, Xinyang not only enhanced its economic base, but its farmer's idea changed essentially. And the economic structure was also changed radically, the county economic strength was largely enhanced, and the comprehensive economic strengths of "Xin County" had been in the 57th list in the whole province from the last one in 1996, and it had been in the middle level of the county economy in Henan (Henan Provincial Statistical Bureau, 2006, p. 226-228).

The transformation of rural production organization mode is one of the embodiments of farmers' idea transformation. In 2005, Henan had 40.6 thousands rural professional cooperation organizations, and the number of participation members achieved 2680 thousand which occupied 13.3% of all farmers in the whole province, and they could create the production values of 6.698 billions Yuan, and the production per capita achieved 2499.3 Yuan (data from Henan Daily of Jan 8, 2006). The rise of rural professional cooperation organization could challenge farmers' small agriculture consciousness in Henan, and farmers produced the transformation of idea.

The professional technological training which is the transformation medium of farmers' idea can enhance farmers' technical quality. In 2004, there were 175 thousand farmers to participate in the farming worker training and obtain the completion certificate (data from the website of [www.nen.com.cn](http://www.nen.com.cn), Dec 20, 2004). Up to the late of 2005, there were 1600 thousands farmers to pass the training and obtain the green certificate of planting and breeding industry (data from Henan Daily of Jan 10, 2006). These groups who were called as the "farming intellectuals" are continually extending, and under their influences and drives, Henan farmers' idea is gradually approaching the requirement of the time development.

#### 3.2 Economic base

According to Simon Smith Kuznets' inverse "U" curve theory about income distribution, through later researchers' studies, they proved that the inverse "U" curve exists in the regional economic development (Zhao Zhenhua, [www.studytime.com.cn](http://www.studytime.com.cn), May 23, 2005). In the initial stage of economic development, the gap of economic development between undeveloped region and developed region is gradually extending, and when the GDP per capita achieves 1000-3000 dollars, the gap of economic development level begins to reduce, and the "inflexion" occurs. The GDP of Henan in 2005 had achieved 1000 billion Yuan, and the GDP per capita had achieved 1200 dollars (Jan 8, 2006). Theoretically, Henan Province has possessed the economic base of the "inflexion" for the urban and rural economic development.

The form of the economic development is concretely embodied as the formation of the "growth pole" in the undeveloped region. According to Peru's theory of growth pole, the economic factors with innovational predominance are in the dominant status in the economic space, and other economic factors are subject. The economic factors in the dominant status possess the "drive" effect, and their growth and innovation will encourage and drive the increases of

other economic factors. On the practical layer, the growth companies or manufacturers with innovational ability will drive the “growth poles” of the industrial development, and these “growth poles” will drive the developments of other enterprises and extend the development space. Therefore, the occurrence of one driving-type enterprise will induce the scale growth of one enterprise group.

In the undeveloped regions of Henan, many companies and enterprises with the “growth pole” effect have formed. Most of these companies with “growth pole” possess the regional economic characters, and they could drive the development of local economy through the “diffusion effect”. For example, the Nanjiecun Group in Linying County mainly manages the further processing of grain, and the series of products such as Yingsong instant noodles and fresh wet noodles have been the notable brands and enjoyed the reputation in the whole country, and the further processing ability of grain drives the developments of surrounding agricultural counties which give priority to grain production. Various counties in Xinyang City have abundant fountains and local farmers are good at the duck-feeding. The “Huaying” Birds Group based on local resource advantages can process about 30 millions cherry ducks yearly which largely drives the local duck-feeding industry. The economic cooperation mode of “company+ professional association+ base+ farmers” drives above local 10 thousands farmers to engage the birds-breeding industry which promotes the quick growth of local economy. The relative industries which taking the “Huaying” cherry duck products have formed enterprise groups at present. The economic interactions among groups further quicken the development of local economy. At present, the amount of farming enterprises in Henan which yearly production value exceeds 0.1 billion Yuan has achieved 131, and they are located in various places of Henan and forms the “growth pole” groups of undeveloped regions taking the farming as the main industry. The naissance and development of these “growth pole” groups has become the economic base of the great-leap-forward development in undeveloped regions of Henan.

### *3.3 Policy environment*

After reform and opening-up, the planned economy mechanism taking the central instruction plan as the character has been obviously weakened, and the status and the function of local governments are gradually presented in the development of regional economy. According to the practice of the economic development, Henan constituted the regional economic development policies to drive the harmonious development of regional economy and implement different policies, so the policy environment spanning from the undeveloped region to the developed region has been formed, and it is mainly embodied in following three aspects.

First, Henan Province takes the harmony of regional economic development as one of important contents of its economic development. On the macro layer, several economic development plates such as “the central plains city group” “north Henan region, west Henan region and southwest Henan region” and “Huang-Huai region” are confirmed. According to the resource gifts and location characters, different plates confirm different development mode and leading industry, implement “central cities and central towns driving strategy to drive quick developments of surrounding regions especially for the rural economy and society, form the situation that various places complement each other’s advantages and exert their own superintendents (Henan Provincial Statistical Bureau, 2006, P.226-228)”. On the operation layer, we should implement the measure that “cities drive villages and industries help agriculture” to reduce the gap between undeveloped region and developed region and plan the regional economic development as a whole.

Second, Henan first put forward the development concept of “developing the agriculture by the industrial concept”. Most undeveloped regions in Henan are centralized in the agricultural region of southeast Henan, and the development gap between undeveloped regions and developed regions is the gap between the agriculture and the industry. The concrete meaning of “developing the agriculture by the industrial concept” is to “use advanced and practical technology to change the agriculture and use advanced and practical industrial products to equip the agriculture and use modern scientific methods to manage the agriculture” and “promote the transformation from traditional agriculture to modern agriculture”, and confirm concrete operation method in many aspects such as “agricultural structure adjustment”, “agricultural science and technology advantage”, “developing leading enterprises” and “agricultural support and protection” (Henan Provincial Committee of CCP and Henan Provincial People’s Administration, 2003).

Third, the government should “transfuse blood” to the undeveloped regions by the mode of “poverty alleviation” and especially support the development of the undeveloped regions. In 2004, the capitals which were used to support the development of poor counties had achieved 1.7 billion Yuan, and 70% of these capitals were expended in the national or provincial defined poor counties, and they were mainly used to change the middle and low yield farmlands and cultivate the leading enterprises in undeveloped regions to increase the energy of economic development in undeveloped regions.

### *3.4 Basic establishment*

US economist Jeffrey Madrick thought that the market, traffic and information were the drive base of economic growth in his book of “Why Economy can Increase”. The quick developments of rural basic establishment in Henan will be the basic establishments to realize the great-leap-forward development in undeveloped regions.

The basic establishment construction of undeveloped regions can promote the communications of human resource, information and resources, let farming products to go out of the closed villages and enter into the market, change the products into commodities and change the resources into wealth. At present, the rural highway length in Henan has achieved 75% of the total length in Henan Province, and the length has achieved 56789 kilometers. In 2004, the total length of highway in the whole province is 2.4 times than the length in 1978. In 44 undeveloped poor counties in Henan, the natural villages which are linked with highway have achieved 87.8% up to the late of 2004, and the natural villages which are linked with electricity have achieved 99.7%, and the natural villages which are linked with telephone have achieved 94.3%. The rural market has formed large scale, and based on former rural wholesale markets, Henan confirmed 27 provincial first-class rural wholesale markets in 2004 which were spread all over the whole province. The bazaar trade amount of farming product trade and processing industry had achieved 0.49 billion Yuan (Henan Provincial Statistical Bureau, 2005, p. 377-402). So we can see that the basic establishment of undeveloped regions in Henan has obtained quick development and achieved certain scale and higher level, which makes the undeveloped regions in Henan possess the basic conditions to implement the great-leap-forward development.

#### 4. Conclusions

(1) From the theoretical researches and practical examples about the developments of foreign and domestic undeveloped regions, we think the great-leap-forward development in undeveloped region can be realized, and it must follow certain rules and fulfill the implementation condition of the great-leap-forward development.

(2) To realize the great-leap-forward development in undeveloped region should implement three spans including concept span, technical span and system span. The concept span is the guidance, the technical span is the support and the system span is the guarantee.

(3) The undeveloped regions in Henan have possessed the idea concept, economic base, policy environment and basic establishment of the great-leap-forward development. Only we can improve the occasion and grasp the opportunity, the great-leap-forward development of undeveloped regions in Henan can be realized.

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