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ALBUM OF RESEARCH PAPERS





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#### A Summary of the International Seminar on Sustainable Development along the Beijing-Kowloon Railway of China

Organized by the China International Center for Economic and Technical Exchange of the ministry of Foreign Trade & Economic Cooperation, Policy Research Department of the State Planning Commission, Development and Research Center of the State Council, The United Nations Industrial Development Organization and the UNIDO Beijing Investment Promotion Service, the International Seminar on Sustainable Development along the Beijing-Kowloon Railway of China was hold between 2-4 of September, 1997, in Beijing, China.

There were 111 deputies participated in this seminar, and among which 82 were from home and other 29 from abroad. Represented with various fields, some of the participants are managers and policy-makers of the key departments of the state, some were the Chinese scholars and experts who have mainly engaged in the study on economic development along the Beijing-Kowloon Railway, some were the local enterprisers and officers, and some were the scholars, managers and enterprises from the European and American countries with great concerns on the sustainable development along the Beijing-kowloon Railway. In this two-day period of mutual exchange, all the participants fully explored all the fields involved in development policies, directions, measures, industries and location, as well as the effects of finance and information on the local economies.

This seminar got great attentions from China's news media. China Daily, Economic Daily and the Xinhua News Agency reported on the opening and the major contents of the seminar, respectively. It would be very helpful to promote local economic development with a great opportunity to absorb more investments from the outsides into the region along the Beijing-Kowloon Railway.

The key problems and issues were discussed in this seminar can be divided into six topics described as the following.

#### 1. Development Strategy

In terms of the "Ninth Five-Year Plan" and "Development Target of China by 2010", economic development along the Beijing-Kowloon Railway is a vital part of the national one as a whole, and such a strategy, as some experts pointed out, would be benefit a lot to the local economies. It is, therefore, very important for the regions along the railway line following the general principles of "unified planning, suit measures to local conditions, diversified and co-operation with each other, coordinated development" to fully use of local natural, agricultural, and labour resources to speed up local economies. Obversely, all these progresses have to account on the efforts of local authorities on fulfilling suitable development policies to pursuit a growing economy with a high-level, high-technology and high-efficiency at first, to open up more widely in order to absorb

more investments from the domestic and abroad secondly, to change the traditional mode of economic growth into a new one with a high-quality and high-efficiency thirdly, and to reinforce co-operation for an optimum utilization of resources lastly.

Some experts raised issues on spatial development. It was very important to fulfill a declined policy stressed on "promoting co-orporations with the east and the west, reinforcing coordination with the north and the south, and speeding up economy of the center". According to this strategy, key cities along the railway line such as the cities of Nanchang-Jiujiang in Jiangxi Province, Shengzhen-Heyuan in Guangdong Province, Heze-Fuyan in Shandong and Anhui provinces would play a vital role in local economic growth. Considering the social and natural conditions, a fully development along the Beijing-Kowloon Railway should glue to a sustainable development strategy.

#### 2. Development Policy

The development policies can be divided into two parts. The first one is the regional economic policy and the second one is the industrial development policy. With an unique characteristics of economy and infrastructure in the region along the railway, the regional economic policy should stress on the projects of a large-scale resources exploitation and infrastructural construction by various measures aimed at developing pillar industries and key cities. For such a development, policies of taxable preferences, technological motivations and environment protections for sustainable development would play very important role, and the central government should work out some special policies for encouraging the co-operation and exchange of economy and technology between the region itself and the outsides. It is also very important to local economy to fulfill preferential policies on public and professional education in order to improve local cultural and technical bases. Special development funs to support developments of industrial sectors and products such as energy industry and electricity in this region is the core of the industrial development policy. Some deputies gave presentations in the two fields of regional and industrial developments on the experiences and lessons such as that happened in South Korea and Taiwan. All these reports, especially those on the urban and rural economies, newly developing areas, export-manufacturing areas, developments of state- and private-owned enterprises would benefit to sustainable development along the Beijing-Kowloon railway.

#### 3. Direction and Path for the Pillar Industries

Considering the natural bases, social economic conditions and home and abroad markets, experts and scholars in this seminar issued that the direction of the region along the railway line would insist on speeding up agriculture, machinery and electronic manufacturing, textile and food, power, chemistry as well as tourist industries as key sectors of local economy. Accordingly, the development of agriculture would root on a compound economy with grain, husbandry (ox raising), fishery and other economic plants such as fruits and vegetables; machinery and electronic industries would concentrate on household appliances, integrated machine-electronic products, cooling

equipment, automobile and parts as well as farm machine manufacturing; textile industry would stress on pure cotton products and high-quality woolen and silk products in terms of the domestic and abroad markets; power industry could build up coal-burn power stations at train-intersections gradually in order to give a hand to release the energy-shortage in the east coastal areas in a short term, and develop itself into a vital energy producer of the nation in a long term; food industry would be advanced with green food processing; while tourist industry could be gave a special attention to develop as a pillar sector of the regional economy.

Facing with a fiercely competition, some deputies showed their concerns on the development strategies of industrial enterprises, such as development of the state-owed enterprises, usage of marketable opportunities, improvement of business management and products selling, and market guiding for enterprises.

#### 4. Construction and Development of Regional Economic Centers

Deputies and scholars also discussed urban development of the region along Beijing-kowloon Railway. First of all, a deputy from Nanchan City expounded to the seminar on how the city, as a modern industrial and trade center, would play a role of "solid pillar" in the regional development. Secondly, a speaker from Jiujiang City made a remarks to develop the city into a "highlight" of the regional economy and gave a fully explanation on what good conditions, preferential policies and economic development there had to pursuit the target. Thirdly, a participant from Fuyan City gave a detail introduction to a project of building up "Big Fuyang City" and what measures of the city's authority would like to fulfill in order to get its planned target. In additional, relatively proposals on the development of economic centers in the region were raised. All these introductions and proposal would have great effects on promoting mutual understanding between the region and its outside and improving regional ability of absorbing investment and developing export-oriented industries.

## 5. The relationship between Infrastructure Construction and Economic Development

It was a topic which have got a fully concern in the seminar. Some experts contributed very useful modes for economic development along Beijing-Kowloon Railway in terms of historical experiences of others. The relationship between infrastrural construction and other factors, the roles of infrastructure on deferent types of regions, as well as some problems caused by mutual relationships were also got an attention of this seminar.

#### 6. Regional effects of Finance and Information

"Investment of sustainable development", "Promoting the development of information network and investing in the region along Beijing-Kowloon Railway", and

"The relationship between foreign trade and regional development along the Beijing-Kowloon Railway" were discussed in this seminar. According to deputies' proposals, widely applying of information technologies and the construction of information network would promote regional development and absorb investment more efficiently.

In short, this seminar provides a place for participants to discuss and exchange all their concerns on the economic development of Beijing-kowloon Railway, and all deputies have reached a common understanding and contributes many valuable proposals to the development along the Beijing-kowloon Railway. It can be said that this seminar ended up with its expected purpose.

# CHINA'S NINTH FIVE-YEAR PLAN AND LONG-TERM OBJECTIVES FOR YEARS UP TO 2010 AND THE ECONOMIC DEVELOPMENT ALONG THE BEIJINGKOWLOON RAILWAY

Zheng Xinli, Zhao Shihong, Shi Zihai (Research Department, State Planning Commission, China)

With the smooth execution of the Ninth Five-Year Plan and the long-term objectives for years up to 2010 and the westward strategic shift of the emphasis of economic development, the areas along the Beijing-Kowloon railway will benefit more from the railway and may become a true new point of economic growth.

# I. A Better Coordinated Development Of The Regional Economies Constitutes The Starting Point Of The Ninth Five-Year Plan And The Long-Term Objectives For Years Up To 2010.

The important starting point for formulating and executing the Ninth Five-Year Plan and the long-term objectives for years up to 2010 is to correctly handle and coordinate the relations among regional economies, strengthen the guidance and regulation of regional economies, promote a rational distribution of the economy and a rational allocation of resources and production factors among different regions, maintain a healthy development of the economy in various regions and create the conditions for gradually narrowing the regional gaps in development and ultimately realize the goal of common prosperity.

1. New features of China's regional economic development

Over the past 18 years since reform and opening up, profound changes have taken place in the pattern of national economic development. Regional economies have developed rapidly to become the main engine of China's economic growth in the new period of development. The regional economies have assumed the following new features:

- -- The original division of labor among different regions has been broken, but the new pattern has not taken shape;
- -- The areas along the coasts, borders, rivers and inland open cities have opened up in an all-round manner and on all domains, giving a powerful push to the development of the regional economies.
- -- The gaps in development among different regions have been widened, arousing high concern from all over the country;
- -- There have taken place many economic development axis and nuclear areas, which formed the initial framework for the future distribution of productive forces.
- -- The funds and materials at the direct disposal of the state have become less and less and financial strength of local governments has grown to become the leading force propelling the development of the regional economy.

The guiding principle and basic rules for promoting a coordinated development of regional economy in the next 15 years are: (1) Under the guidance of Deng Xiaoping's theory of building socialism with Chinese characteristics, to liberate the minds, strengthen overall planning and

arrangements and rationally distribute the productive forces, give prominence to key projects and promote a coordinated development of the regional economy in a planned way and stage by stage; (2) In line with the principle of "overall arrangements and planning, proceeding from actual local conditions, displaying advantages, division of labor and coordinated development", to correctly handle the relations between the national economy and the regional economy and the relations among different regions; correctly handle the relations between the establishment of regional economy and displaying the initiatives of various provinces, autonomous regions and municipalities; and correctly handle the relations among different regions. The emphasis is to do away with the development pattern of regional segmentation, blockade and exclusiveness and rationally adjust regional economic structures and raise economic results, accelerate the infrastructure construction in the central and western parts of the country and make great efforts to develop township enterprises in the central and western parts of the country; step up the pace of economic association and cooperation among different regions, give full scope to the advantages of various regions and the role of central cities to raise the overall quality of the regional economies and stimulate a rational division of labor among different regions; support the poor areas and areas inhabited by people of minority nationalities in their economic development and gradually narrow the gaps in economic development levels between the central and western parts of the country and the eastern coastal region.

2. General layout to bring about a coordinated development of the regional economies.

The major objectives for the Ninth Five-Year Plan period in coordinating regional economic development and control and narrow regional disparities are: under the precondition of improving the overall quality of the national economy and the comprehensive national strength, every effort should be made to initially control the tendency of widening gaps in the economic development levels between the eastern and central and western regions; areas along rivers, roads and economic central cities and along borders in the central and western regions where the conditions are good should narrow their gaps with the eastern region, striving for the goal of a comfortable living while areas where major agricultural, energy and raw material bases are situated should give full scope to their advantages and strengthen development; minority nationalities areas should strive to improve their social, economic and technical conditions in an all-round manner and markedly raise their economic and social development level; and poor areas should basically settle their problem of inadequate food and clothing and embark on the road to prosperity. To check the widening the regional gaps does not necessarily mean curtailing the economic development of the eastern region. The gaps will be narrowed by accelerating the development of the central and western parts of the country on the basis of common development.

- -- To further expand the opening of border areas, minority nationality areas and cities along rivers and provincial cities;
- -- To establish a standard transfer of payment system by the central finance to gradually increase the fiscal support to the central and western parts of the country;
- To give priority to projects on resources development and infrastructure construction in the central and western parts of the country;
- -- To accelerate the development of township enterprises so as to make them important basis for local economic growth; and
  - -- Economically developed areas in the eastern region should help the central and western

regions and minority nationality areas in their economic development by launching partnership programs and through other ways.

### II. Features of Natural Endowment and Current Economic Development in the Areas along the Beijing-Kowloon Railway

The areas along the Beijing-Kowloon railway reaches Hong Kong and Macao and economically developed areas on the Pearl River Delta in the south, links up with Beijing and Tianjin in the north, borders on the economically developed areas in the coastal open cities in the east and connects with the energy-rich central part of the country. It is a relay station for the movement of economic development from the east to the west, a point for accepting economic and technical transfer between Beijing and Tianjin and the Pearl River Delta area. It is also an inevitable passage for foreign investment to advance from the south to the north and from the east to the west. In a word, it enjoys great geographical advantages.

- 1. Features of natural endowment
- (1) The area abounds in water resources, good for agricultural development. The areas along the Beijing-Kowloon railway is unique in water resources and temperate and wet climate. They are the major areas producing grain, cotton and other farm and sideline produce, with output accounting for about 15% of the national total. Vegetable production has become a pillar of the agriculture economy in the Beijing-Kowloon economic belt. Forestry has also its own particular features.
- (2) Mineral resources are noted for the great variety and big reserves, with good development prospects. Part of the mineral resources is big in reserves, high in grade and good in economic value.
- (3) There is an array of famous and special products, with good quality and big output. All areas along the line have their own particular products that have a good reputation both at home and abroad.
  - (4) There are many historical sites, promising rich tourism resources.
  - 2. Current conditions of economic development
- (1) Economy has developed rapidly, but the overall quality of the economy remains low. Since reform and opening up, especially during the Eighth Five-Year Plan period, the areas along the Beijing-Kowloon railway seized the good opportunity offered by the construction of the railway to bring about a sustainable and rapid growth. But the areas is weak in infrastructure facilities and started late in reform and opening up and the new points of economic growth and growth poles are not clear-cut. Export-oriented economy, the non-public sectors of the economy and the development of township enterprises have been slow in relative terms. Enterprises lack vitality; their management is backward and technical equipment level is low; and their products lack competitiveness. The industrial quality and overall quality of the economy are not very high.
- (2) The pace of industrial structural adjustment is fairly fast, but the problem of low level in industrial structure is outstanding. Since reform and opening up, many areas started transition from single agricultural economy to modern economy, with the secondary and tertiary industries gaining fairly rapid development. But the proportion of the primary industry is too big. Basic industries and infrastructure facilities are backward, with no obvious leading industries and

there is the convergence of industrial structure among different areas. Rising industries are slow in their development. The duplicated industrial structure at low level is very serious.

- (3) Economic development is uneven, with relatively developed areas and poor areas coexisting. The southern and northern ends of the railway are developed and the middle part of the areas along the line is backward, with both developed cities and impoverished mountainous areas. The dual structure is obvious and there is a big disparity in economic development.
- (4) Plant culture and breeding industry are relatively developed, but the deep processing of farm and animal by-products is low. There is a great number of state class grain producing counties and commodity grain producing counties and high quality cotton production bases along the line. Part of the areas has developed peculiar breeding industry. But the areas are backward in the processing of farm produce, with little added value. The income level of local peasants is low, thus restricting the industrialization of plant culture and breeding industry.
- (5) Commodity markets are developed, but the market system remains flaw-ridden, especially the production factors markets which are slow in development. By relying on the superior geographical location and resources advantages, some areas have had fairly developed commodities markets and some major goods collection and distribution centers. Generally speaking, the market system remains underdeveloped, with circulation facilities and organizational forms remaining backward. The areas are especially slow in the development of the markets of funds, labor, technology and information. This has affected the rational allocation of production factors and the upgrading of industrial structure.

### III. Problems that Merit Attention in the Economic Development in the Areas along the Beijing-Kowloon Railway

According to the general layout of economic development in the country and the features of natural endowment and current conditions of economic development, the orientation for development during the Ninth Five-Year Plan period should be: (1) To strength cooperation inside the region and with other regions to expand the opening up in conjunction with the development and opening up of the economic belt along the Yangtze River, the economic belt along the Eurasia Continental Bridge and the Guangdong area; (2) to continue to make greater efforts to develop agriculture and accelerate the development of agriculture featuring high yield, high quality and high efficiency and raise the precision and depth of processing of farm and sideline products; (3) to develop mineral resources and raw materials and processing industries with their own characteristics and develop industries that have been moved from the eastern part of the country; (4) to accelerate the construction of communications and transport and telecommunications facilities to meet the demand of the economic development in the region and strengthen international cooperation; (5) to speed up the development of township enterprises in the areas of farm and sideline products processing and resources development, primary processing and other labor-intensive industries by making full use of the locally available resources so as to further enliven the rural economy.

The following problems merits full attention in the development of the economy in the areas along the Beijing-Kowloon railway:

To strike a more open stance in order to attract more domestic and foreign investors. For this purpose, it is necessary to strengthen publicity in foreign countries, create institutional conditions to improve the investment environment. It is necessary to speed up exchange and cooperation with other areas in order to introduce funds, technology and personnel for the development of the local economy so as to gradually narrow the gaps in the vertical division of labor with developed areas and expand the horizontal division of labor.

To persist in the sustainable development strategy to stimulate a coordinated economic, social and en vironmental development. It is necessary to pay attention to the economical use of land and the protection of the ecological environment, preventing as much as possible the deterioration of the quality of the environment due to economic development. It is essential to harmonize the economic and social development and, on the basis of economic development, stimulate an overall development of social undertakings.

To change the mode of economic growth and raise the quality and efficiency of economic growth. It is necessary to employ the market means to direct and organize the allocation of production factors and fix the emphasis in the market-oriented development of industries and products. What has been achieved must be put to full use in order to accelerate technical transformation and tap the potential to the full. New projects must start at a high point and aim at economies of scale and make full use of advanced adaptable technologies. It is also necessary to rely on the progress in science and technology to invigorate the economy and stimulate the fusion of technology and economy, improve the educational quality of labor and intensify management and practice economy.

To strengthen planning and promote association and cooperation. Here, it is necessary to pay attention to internal association and cooperation and, according to the principle of making up for each other's disadvantages, mutual benefit, united development and common prosperity and through joint investment and production, strengthen specialized cooperation and promote economies of scale. It is also necessary to follow the market rules and requirements of socialized production in forming enterprise groups, knocking to pieces regional segmentation, avoiding duplicated construction and realizing optimal allocation of resources.

To improve infrastructure facilities to prepare better conditions for economic development. Efforts should continue to strengthen the building of communications and telecommunications and other infrastructure facilities and accelerate the construction of corresponding railways, roads and waterway shipping facilities, strengthen the technical transformation of the existing telecommunications systems, with emphasis on the construction of postal sorting centers and municipal telephone networks.

To continue to do well in agricultural production and energetically develop township enterprises. Efforts should be made to develop farming, forestry and animal husbandry and processing industry according to local conditions and improve the agricultural production capacity. More active efforts should be made to develop animal husbandry and fresh water breeding and upgrade the deep processing of animal by-products and other products of the breeding industry. Efforts should continue to strengthen agricultural infrastructure facilities and boost irrigation and anti-drought and anti-flood capacities in order to ensure steady and high yields. The technical and management level of township enterprises should be brought onto a higher level and efforts should be made to promote concentration and economies of scale.

To handle well the relations of resources development and processing industries and turn resources advantages into true economic advantages. According to the requirements of the distribution of productive forces, great efforts should be made to develop resources industries,

especially the energy industry and raw materials industry. It is necessary to accept some energyand material- consuming industries that require a huge amount of transportation work from the eastern part of the country. Attention should be paid to the comprehensive utilization of resources and persist in the principle of integrating utilization and protection of resources and raise the efficiency in the utilization of resources. (End)

#### SUSTAINABLE URBAN CONSTRUCTION, UTILIZATION OF RESOURCES AND ENVIRONMENTAL PROECTION

(Zhang Yuanhang, Tang Jianwu and Liu Meng) Environment Sciences Center of Beijing University

The general distribution of natural resources in China falls off in a gradient manner from northwest to southeast and from inland to coastal areas, but the reverse is true with economic development level. This determines that information and material exchange is of special significance in China which has a vast territory. For a long time, China's economic development has been restricted by the "bottlenecks of communications, especially railways. But the completion of the north-south artery of Beijing-Kowloon railway has activated the nearly 60,000 kilometers of railway network in the country. It has not only eased the strained situation in the north-south transportation but also formed a vertical communications network that reaches to all directions together with the railway lines along the way, such as Beijing-Shanghai, Shijiazhuang-Huangshan, Shijiazhuang-Dezhou, Jinan-Handan, Xinhui-Shijiazhuang, Lianyungang-Lanzhou, Luohe-Fuyang, Fuyang-Huainan, Han-Xun, He-Xun, Hangzhou-Zhuzhou and Guangzhou-Kowloon, the five waterways of Haihe River, the Yellow River, the Huaihe river, the Yangtze and the Pearl River and roads along the way.

The Beijing-Kowloon railway is 2,536 kilometers long, running through 98 counties and cities in 20 prefectures of nine provinces and municipalities, covering about 500,000 square kilometers, with a population of 200 million. The industrial and agricultural output value of the areas along the line accounts for about 15% of the national total. It links up Beijing with Hong Kong, providing a land outlet to the world for the economic belt in the central part of China, especially to the Asian-Pacific economic belt that will be the most vigorous in the world in the next century.

The railway is situated in the juncture between the coastal areas and the inland and between the central economic belt and the economic belt in the eastern part of the country. On both ends are the economically developed Pearl River delta and the Bohai-rim economic sphere, with relatively developed Nanchang-Jiujiang industrial corridor in between. The other areas are noted for their relatively rich natural resources remaining to be developed, less developed but not secluded, an ideal area for investment and development. It is a major subject of study as to how to tap the economic potential and realize a sustainable social and economic development in the areas along the line.

As the industrialization and urbanization level along the line is relatively low, natural resources and labor are rich but economic development is relatively backward, it should borrow but not ape the development model in the eastern part of the country. It is, therefore, necessary for the areas along the line to strengthen urbanization and the diffusion effect of central cities,

stress the flow of funds, materials and personnel and information exchange inside the region and with other regions. It should carry forward the result of development in the east to stimulate the development in the western part, effectuate a rational utilization of resources, protect the environment and open up a road with a sustainable development in resources, environment and economy.

The thesis is divided into five parts:

1. Urban construction in areas along the Beijing-Kowloon Railway.

Apart from the four big cities on both ends of the railway – Beijing, Tianjin, Shenzhen and Hong Kong, there are along the line 16 cities. They are Bazhou, Renqiu and Hengshui in Hebei Province, Linqing, Liucheng and Heze in Shandong Province, Shangqiu in Henan Province, Bozhou and Fuyang in Anhui Province, Macheng in Hubei Province, Jiujiang, Nanchang, Ji'an and Ganzhou in Jiangxi Province, Heyuan and Huizhou in Guangdong province. These cities are generally small in size and low in grade, not strong economically. Their industries are poor and product mix and industrial structures are irrational. There are not much export-oriented industries. Education and research are feeble in their foundation. But many cities have a long history, with rich resources for humanity studies. Liucheng, Shangqiu, Bozhou, Nanchang and Ganzhou are state class historical and cultural cities, a major origin of the culture in Central China.

The areas should not depend on outside forces for an economic takeoff. They must build a number of central cities with considerable economic strength and regional diffusion power.

#### 1.1 Western Shandong area

The urbanization level in the western Shandong area is low. There is only one designated city for every 7,500 square kilometers on average. But in Shandong province as a whole, there is one city for every 4,000 square kilometers. The proportion of urban population is also lower than the coastal region. The 1992 urbanization rate in the Liucheng area was only 12.47% and that of the Heze area was 8.57%.

With the completion of Xin-Shi, Hou-Yue and Ji-Han railways, Liucheng and Heze will become major railway hubs on the Beijing-Kowloon Railway and the second Eurasia continental bridge. They will become the forefront of opening to the outside world in Shandong Province. The coastal region will move all their labor-intensive, resource-intensive industries and industries with markets in Hong Kong and Macao and Southeast Asia to the area.

The natural conditions there are superior. They are the major grain and cotton production bases. The development of township enterprises will turn these rich agricultural resources into commodities.

The western part of Shandong abounds in petroleum, natural gas and coal resources. The Heze area boasts a coal reserve of 29.5 billion tons; the Zhongyuan oilfield reported a verified oil reserves of 2.05 billion tons and natural gas, 27.1 billion cubic meters.

The area may well be built into an agricultural commodities base, an agricultural products processing base, a commodities circulation base, a petroleum, natural gas, coal and chemicals base. Liucheng and Heze should become modern cities each with a population of about 500,000.

#### 1.2 Anhui

Fuyang is a major area where the Beijing-Kowloon railway passes through. On the middle of the line, the city is about 1,000 kilometers from Beijing. The Fuyang section of the Beijing-Kowloon Railway cost 2.6 billion yuan. The most attractive is the Fuyang super-large railway hub with the highest degree of modernization in the east China area, one of the six major railway hubs. The unique advantages will make Fuyang one of the inevitable large central cities along the line.

Fuyang prefecture administers seven counties and three cities. Its population, arable land and grain output all account for over one percent of the national total. Its coal reserves have reached 8 billion tons. The prefecture is especially noted for its resources of farm and sideline produce. Nine of the ten counties in the prefecture have been listed as national grain and cotton producers and eight are national commodities grain production bases. It is also known as yellow ox production center, with three counties topping the list of ten major yellow ox production bases in China. The natural peppermint output accounts for one third of the national total.

Apart from the Beijing-Kowloon Railway, the central government invested more than 10 billion yuan in the area in a number of large projects, including an airport, an express highway, a thermal power plant with two generating units each with 600,000kw, sino-U.S. cooperative oilfield, a quality coalfield and an agriculture comprehensive development and a yellow ox project. The sum of investment tops the last 40 years combined.

Fuyang has been an area active in thinking and in creation. It is an area selected by Anhui Province for experimenting in the agricultural comprehensive reform and also an area selected by the central government for experimenting in the construction of township enterprise system. The climate for opening is vary favorable. The area is known as "Fuyang model" in agricultural reform.

At present, there are no central cities with a perimeter of 200 kilometers. It is, therefore, necessary to seize the opportunity of the Beijing-Kowloon railway to build a central city with one million people in order to stimulate the urban development of Bozhou and Jieshou and a city group of certain scale will take place along the Beijing-Kowloon line.

#### 1.3 Jiangxi

Jiujiang is at the confluence of Ganjiang and the Yangtze. It is a tourism center well known in the middle and upper reaches of the Yangtze. The industrial corridor between Jiujiang and Nanchang is a relatively developed industrial belt along the Beijing-Kowloon Railway, with petrochemicals, textiles, machinery and electronics assuming a considerable scale. With the

Yangtze River Bridge at Jiujiang, the world's largest rail and road bridge, which the Beijing-Kowloon Railway passes through, the Nanchang-Jiujiang high grade highway, the original civil airport, Jiujiang has become a major communications hub, which is rarely seen along the Beijing-Kowloon Railway. This will strengthen the position of Jiujiang as a foreign trade port in Jiangxi and a window of the province to the outside world. With the current conditions and proper policy bias, Jiujiang is sure to become a large modern city replete with business, tourism and industry and with a population of one million.

Ganzhou is in the southern part of Jiangxi. It is a national historical and cultural famous city and a communications hub that links Beijing and Dayuling of Guangdong Province. As a central city in the area, Ganzhou is not strong in its overall economic strength and poor in diffusion power. It is an urgent demand to boost its strength and stimulate the development of the poor mountainous areas in southern Jiangxi. According to the locally available resources, corresponding policies should be worked out to develop non-ferrous metals processing industry, building materials and forestry so that Ganzhou will become a true economic development center, a trading center, a cultural center in southern Jiangxi and the southern gate of Jiangxi.

#### 2. Agricultural resources development

Areas along the Beijing-Kowloon Railway are rich in agricultural and biological resources. The key lies in how to build a farm produce deep processing base with intensive operations to increase the values of farm produce, smooth out the channels for export, especially to Hong Kong and Macao. That will turn agricultural advantages into real economic advantages.

Western Shandong area is a major base for the production of wheat, cotton, soybeans and forestry and animal by-products. Of the eight counties and cities in Liucheng area, 7 are national class grain and cotton production centers. The area produces 8 million tons of grain every year, accounting for a quarter of the provincial total and 600,000 tons of cotton, accounting for half of the provincial total. It is one of the most important grain and cotton production centers along the Beijing-Kowloon Railway. The farm and sideline processing in the area has assumed a considerable scale. The Jiaming Group is the largest table chicken processing center. The ass skin glue produced in Dong'a, Pingyin and Yanggu is a traditional famous product in Shandong, occupying a lion's share of the home market and exporting to a number of countries.

Fuyang in Anhui is also a traditional agricultural area. Of the 10 counties and cities under its jurisdiction, 9 are national class grain and cotton production bases and 8 are national commodities grain production bases. Ramie, peppermint, tobacco, leather, Tong tree, rabbit hair and meats occupy a large market in the country. It ranks first in the country in the number of yellow ox slaughtered and in stock. The annual output of peppermint accounts for one third of the country. At present, a number of farm and sideline projects are being constructed, including the Yellow-Huaihe-Haihe comprehensive development and World Bank loan irrigation project, which will run for 30 years, with an annual investment of more than 100 million yuan. The main project is the transformation of medium- and low-yielding fields. Other projects include the 666,666-hectare demonstrative farm project funded by the central

government, the yellow ox development projects and Sino-Thai animal husbandry development projects. These projects will greatly improve the agricultural comprehensive—strength of the Fuyang area, preparing the conditions for further opening.

In the Jiangxi section of the Beijing-Kowloon Railway, there are many important commodities grain production bases, cotton production bases, aquatic production bases, vegetable production bases. Jiujiang has the advantages of cotton production; Nanchang has the advantages of grain production; and Ji'an has the advantages of ramie production.

Looking beyond, Henan province, according to the 1995 statistical data, ranks third in the country in grain output and second in cotton and oil-bearing crops, third in tobacco production and first in livestock breeding. Every year, it ships out a large amount of grain, cotton, edible oil, meats, poultry and eggs.

Southern Jiangxi Province is an important cane sugar and commodity grain production base, very favorable for developing cane sugar and sugar deep processing.

#### 3. Development of natural resources

#### 3.1 Coal and oil in western Shandong.

Western Shandong is rich in petroleum, natural gas and coal resources. The coal reserves in Jining city is estimated at 3.95 billion tons, good for power and for making coke; the coal reserves in Heze area are estimated at 29.5 billion tons, including 3.4 billion tons buried at a depth of less than 1,000 meters. Western Shandong is an important part of the Zhongyuan Oilfield, which boasts a reserve of 2.05 billion tons of oil and 60 billion cubic meters of natural gas, including 27.1 billion cubic meters verified.

#### 3.2 Non-ferrous metals and forests in Ganzhou

Non-ferrous metals, especially tungsten which is big in reserve, should be further developed.

Forest cover in Ganzhou has reached 50%. It is a subject of study as to how to effectively utilize and preserve the forest resources and how to improve the comprehensive utilization efficiency.

#### 4. Tourism

It would be of great significance to take advantage of the easy communications to develop tourism resources to attract tourists form Beijing, Tianjin and Hong Kong and Macao as it will help increase income of the tertiary industry, promote the transmission of information, enhance popularity of the area and attract more capital.

Western Shandong used to be the most prosperous place on the Grand Canal. Liucheng is noted for its iron-cast tower of the Song Dynasty, Guangyue Tower of the Ming Dynasty, Haiyuan Tower of the Qing Dynasty, the Jingyanggang which is noted for the legendary story of

Wu Song who killed a tiger with his bare fists, the former site of the rebel gathering and the former residence of Song Jiang, a main character in the ancient classic novel "The Marshland". Heze is the noted home of peony and the ancient battlefield during the Warring States period.

Mount Lu is a tourist resort well known at home and abroad. 1,000 years ago, Chinese ancient poet left his works "Viewing the Waterfall of Mount Lu". However, the tourism facilities have not been well developed and the conditions are not good enough.

The Jinggang Mountains not far from the Beijing-Kowloon Railway is a birthplace of the Chinese Revolution. The natural landscapes and historical sites are awaiting development and the place may become a good place for tourism and education in history.

#### 5. Environmental protection

Beijing-Kowloon Railway is a modern railway built with advanced technology and equipment. Efforts should be made to protect the ecological environment along the railway from being polluted.

At present, Chinese railways have been seriously polluted by, especially plastics. Precautionary measures should be taken to protect the new railway.

According to the result of a research project by the No. 4 Survey and Designing Institute of the Ministry of Railways:

The amount of wastes discharged every year is W-K.Q /(24 x 365) Of which

Q; running time of each train a day (hr./person), K: daily average wastes discharged.

A sample survey shows: ordinary refuse: 0.414kg/daily/person; of this organic wastes account for 46.4%; paper and paper boxes, 18%; plastics, 5.5%; glass, 12.8%; and metals, 1.7%. Among the wastes, food boxes is 0.33 pieces/day/person.

The total amount of wastes discharged along the line may be calculated according to the current passenger volume handled.

It is necessary to collect the wastes according to different categories and be treated in one place. That is a feasible way to solve the pollution problem. Along the railway line, there should be established waste recovery points. Plastic wastes should be treated by burning or recycling.

### PROMOTE THE FORMATION AND DEVELOPMENT OF THE BEIJING-KOWLOON ECONOMIC BELT

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After the completion of the Beijing-Kowloon Railway, it has become urgent to study how to better and quickly display its efficiency, how to develop and utilize the rich resources in areas along the line, accelerate the economic development of all regions along the line and promote the formation and sustainable development of the Beijing-Kowloon Economic Belt (BKEB).

#### I. Practical Conditions for the Formation of BKEB

The turn of the century is a crucial period for China's modernization drive. To realize the fundamental changes in the growth pattern and in the operational mechanism of enterprises and actively cultivate and develop new points of economic growth and economic belts will help ensure a sustainable, rapid and healthy development of the national economy. The factors available in areas along the line, including communications, position, resources, markets, investment and policies, show that the areas along the line have every condition to become a new belt of economic growth at the turn of the century. The supporting conditions are:

1. Beijing-Kowloon Railway is the material base and pre-condition for the development of BKEB

The railway has greatly improved the communications conditions in areas along the line and stimulated economic activities to concentrate on the two sides of the railway so that an economic belt will take place.

2. The state policies are favorable for the development of BKEB

In view of the regional economy, the railway is situated at the junction between the eastern and western parts of the country, sandwiched by the eastern developed areas and the less-developed areas in the central part of the country, enjoying the policies of the central government for the development of the central and western parts of the country. The 5<sup>th</sup> plenary session of the 14<sup>th</sup> Central Committee of the Communist Party of China proposed efforts to stimulate the formation of a number of trans-provincial and trans-autonomous regional economic regions, including the new economic belts on both sides of the Beijing-Kowloon Railway. Party General Secretary Jiang Zemin wrote inscriptions "Build south-north trunk line, develop the BKEB". This is the political guarantee for the big development of BKEB.

3. Network formed by the BKEB and other economic zones. The BKEB will join the Yangtze River Delta and Yangtze River Basin economic belts on the lower reaches of the Yangtze. It also links with the Bohai-rim economic zone that covers Liaodong Peninsular, Shandong Peninsular and Beijing, Tianjin and Hebei and the Southeast China coastal economic zones with the Pearl River Delta and southeast Fujian as the main part. The belt also runs across the East-

West Eurasia Continental Bridge. All these have enabled the Beijing-Kowloon Railway to connect with all economic zones, thus enhancing the impact of the Beijing-Kowloon Railway.

4. The rich natural resources with great development potential. The areas along the Beijing-Kowloon Railway are rich in agricultural resources, humanity resources, tourism resources, minerals, land and human resources.

#### 5. The tremendous market potential

The areas directly benefiting from the railway have reached 500,000 square kilometers, with a population of more than 70 million. The opening of the railway has broken down the administrative barriers and the separation by mountains and rivers, thus enhancing the integration of the communications in the eastern and central parts of the country and the integration of markets. With the formation of the market along the line and opening and improvement of the investment environment, the areas along the railway are expected to become an economic zone with a high degree of development and opening.

#### 6. High attractiveness to foreign investors

The resources type and labor-intensive processing industries in the coastal areas are being moved towards the inland areas. The areas along the railway are on the forefront to accept these enterprises. They can get the initial funds, technology and management experience. The railway has shortened the distance between Hong Kong and the areas along the line, making it more favorable for Hong Kong investors to invest in the inland areas.

7. Medium-sized and small cities and towns along the line, which can play the basic roles. On both ends of the railway are the developed regions of China, which will have a pulling effect on the areas along the line. Besides, there are numerous medium-sized and small cities and towns and they have developed for years. Some have become fairly developed. These are the powerful backing of the areas along the line.

Of course, we must also see that there would be many difficulties: (1) the infrastructure construction would be huge; (2) there will be a big fund shortage; (3) Existing cities and towns do not have outstanding features. Principal urban industrial structures are convergent and some cities and towns are imperfect in their functions.

### II. Formation and Development of Central Cities at Different Levels in the BKEB

1. Develop central cities at different levels and gradually form a city group along the line.

As seen from the future development, the pattern of cities at different levels is bound to take shape due to the current differences in development, size and comprehensive strength, development features and roles. The current pattern will change. The first level cities will be those that will have a big impact on the development of the areas along the line and those occupy an important position; the second level cities will be cities that will play a major role in

local economy and the economies in the surroundings; the third level cities will be those that will play their roles in local economy. These cities at different levels will form a city group on both sides of the railway.

#### 2. Options for regional central cities along the railway.

The selection of central cities along the line should be based on the following conditions: good modern comprehensive transport conditions, positions, resources, human and historical conditions; good development in economy, science and technology, solid infrastructure facilities and fast in opening to the outside world; great potential for the development of the growth stage and good prospects for development. The central cities will be developed on the basis of the existing cities. Cities along the line that can satisfy the conditions are Banzhou, Hengshui, Liucheng, Heze, Shangqiu, Fuyang, Hengchuan, Macheng, Jiujiang, Ji'an, Ganzhou, Heyuan and Huizhou.

#### 3. Coordinate setting for the development of central cities

It is necessary to weaken the segmentation of the economy by administrative zoning and use market forces to develop the central cities. Efforts should be concentrated on the extension of the horizontal coordination. They should develop from points to lines and from lines to plane according to the law governing the market economy so that they will play the central role in organizing and developing the economy.

#### III. Principles for the Option for Industries in the BKEB

The existing productive force level in the areas along the railway is low, mostly belonging to the traditional farming, with the secondary and tertiary industries accounting for less than 60%. In general, it is at the stage of initial industrialization. The most important task ahead is to accelerate industrialization. The starting point in opting for industries for the belt is the existing base. First of all, the areas have to develop by taking advantage of outside forces; secondly, they have to take full advantage of their rich resources, with science and technology running through in between. Generally speaking, modern agriculture, tourism, commerce, building materials industry, processing industry and tertiary industry should be industries of first choice for the BKEB. Central cities in the areas should adopt the "secondary-tertiary-primary" industrial structure. Specifically, the option for industries should follow the following principles: opportunity, peculiarities and science and technology.

#### IV. Communication, Coordination and Planning of the BKEB

#### 1. Communication, coordination and supportive work inside the BKEB

The state should give the BKEB good guidance and necessary financial support, especially with regard to market economic system, regional infrastructure construction, resources development and formation of large enterprise groups. It is necessary to set up a regional

organization to organize, coordinate, communicate among different areas and strengthen exchange and cooperation among them. Each area should have a sense of the whole economic belt so as to form an overall advantage of the economic belt.

#### 2. Planning for the development of BKEB

This should cover the following: (1) clarification of the type of region and division of plan areas; (2) fixing of the regional structure; (3) distribution of central cities and policies needed for the development of the cities; (4) planning of the transport system, including railways, waterways, roads, pipelines and air transport; (5) production and supply of energy and fixing of the energy structure; (6) environmental protection; (7) water conservancy, supply and demand of water resources (development and prediction); (8) investment, including fund sources and amount needed for implementing the development plans; (9) population size and jobs, education and other social developments.

#### V. Policy Options for the Development of BKEB

- 1. Market forces should be the main motive power for development;
- 2. The state should be biased for the belt in terms of institutional input and should encourage areas along the line to cultivate and develop non-public sector of the economy;
  - 3. The state should support areas along the line to launch more development zones;
- 4. Efforts should be focused on infrastructure construction and the preparation of better investment environment; and
  - 5. Efforts should be made to publicize BKEB by both the state and all areas along the line.

#### ENVIRONMENTAL AND POLICY ANALYSIS OF THE DEVELOPMENT OF THE AREAS ALONG THE BEIJING-KOWLOON RAILWAY

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### 1. Trunk Railway's Lead Role in Economic Development of Surrounding Areas

The construction and operation of trunk railway will have a far-reaching impact on the economic and social development of surrounding areas. With the development of other infrastructure construction, such as feeder lines, roads, waterway shipping, air transport, energy, posts and telecommunications, trunk railway will have the following lead role in the economic development of surrounding areas:

- (1) The opening of trunk railway will open the passage to the outside world, help improve the geographical advantages and investment environment, raise their strategic positions in the macroeconomic and regional economic development. It will also enable them to participate in wider areas of social and economic activities and thus obtain more development opportunities.
- (2) It will improve the transportation and marketing conditions for mining areas and surrounding areas. Industries that utilize mineral resources will get priority for development and will take along the associated processing industries and manufacturing. The comprehensive development and utilization of resources will be stepped up.
- (3) With the resources development and the building of railway stations at different levels and the distribution of large, and medium-sized industrial projects, railway hub cities, rising mining industry and industrial and commercial cities will be built to stimulate the expansion of existing cities and the diversification of their functions.
- (4) It will help build economic ties among cities, between cities and regions and between urban and rural areas, thus stimulating the expansion of the existing specialized markets and the formation of new ones. Major railway stations and tourism spots will become regional commercial and trade centers and tourism centers.
- (5) Trunk railway will become the central axis in the industrial distribution along the line and, through its concentration and diffusion functions, lead the development of the surrounding areas and associated industries, thus forming a growth belt or industrial belt with trunk railway as the center.

### 2. Environment and potential for economic development along the Beijing-Kowloon Railway

The Beijing-Kowloon Railway is a big artery that is the largest in scale, heaviest in investment in the history of China's railway construction. Its completion has created a good environment and condition for the economic development of the areas along the line, which will become one of the areas with the largest development potential.

- 1. Natural resources are extremely rich along the line. They include agricultural and biological resources, mineral resources, tourism resources and labor resources. For a long time, restricted by inaccessibility, the resources could not be developed to the full. Therefore, there is a large potential for development and utilization.
- 2. The railway is situated at the juncture of the eastern developed region and the western less developed region, with relatively developed cities, regions and economic belts all around. The region covered by the railway has the middleman role to play. The completion of the railway has made it favorable to strengthen cooperation and exchange with surrounding developed regions.
- 3. The railway crosses vertically with many east-west communications channels. The geographical location advantages of some cities or areas along the lines are quite outstanding and investment environment has been improved. At the same time, the completion of the railway has ended the history of some areas where there had not been any railways, thus injecting into new vitality into these areas.
- 4. Both the central and local governments have given full attention to the development of the areas along the line. The building of the Beijing-Kowloon Economic Belt (BKEB) has been incorporated into the Ninth Five-Year Plan and the long-term objectives for years up to 2010. While inspecting the railway work in progress, Party General Secretary Jiang Zemin called on the areas to build the south-north trunk line and develop the Beijing-Kowloon Economic Belt." Party and state leaders, including Qiao Shi, Zhu Rongji, Hu Jintao, Wu Bangguo, Zou Jiahua and Li Tieying have all inspected the areas along the line and delivered important speeches. The railway runs through seven provinces and two municipalities, which have all listed the infrastructure construction, development and opening and economic development along the line into their local construction and development plans and have given great support in funds, technology and personnel. The areas along the line have also readjusted their development focuses and pillar industries according to the new opportunities created by the railway and mapped out detailed development strategy and plans.

3. Strategic Conception And Analysis
of Associated Policies for the Economic Development
in the Areas Along the Railway

The Beijing-Kowloon Railway features great length, great numbers of provinces and cities crossed, great regional gaps and uneven development of different areas. The construction of the economic belt should follow the requirements for coordinated development and related state industrial policies and the principle of overall arrangements and planning. The development of major industries should take along related industries and the development of central cities should help form the economic belt and the construction of regional economy with its own characteristics. At the same time, the central government should bias in policy toward the areas along the line to satisfy the need in the building of the economic belt so as to accelerate the resources development and help poor areas out of poverty.

1. To stimulate the development of related industries while developing major industries.

In view of the state industrial policy and its policy for regional economic development and the comparative advantages and existing foundation of the areas along the line, the focus of development should be put on high-yielding, high-quality and high-efficiency agriculture, power and other industries, commerce and trade and tourism so as to form advantage industries and lead industries and take along the related industries and boost the overall strength of the region as a whole.

2. To develop central cities and promote the formation and development of the economic belt.

Compared with the Beijing-Guangzhou and Beijing-Shanghai railways, the Beijing-Kowloon railway runs through mostly medium-sized and small cities and towns, except Nanchang, Shenzhen and Jiujiang. These medium-sized and small cities have little lead role to play to promote the economic development in the surrounding areas. The formation and development of the Beijing-Kowloon Railway Economic Belt requires the building of a number of central cities that will be made economic centers. It is, therefore, necessary to select some cities which have good foundations, great development potential and have a big lead role and concentrate material, financial and human resources to make them grow into central cities.

3. Policy measures for the formation and development of the economic belt.

First of all, it requires related departments to take the lead and have the participation of all areas along the line to map out a comprehensive development plan, covering all the major issues, including the construction of infrastructure facilities, major projects, distribution of major industries, the cultivation of regional markets, ecological protection, regional environmental pollution control and prevention. All the areas along the line should bring their own development programs into line with the comprehensive development plan so as to raise development efficiency, realize division of labor, display the overall advantage, optimize the allocation of resources and effectively prevent duplicated construction and excessive competition.

Secondly, the state should give priority to resources development and infrastructure construction along the line and give them more investment. For projects to be jointly invested by the central and local governments, the proportion of investment due to local governments should be lowered. For large and medium-sized infrastructure projects and resources

development, project financing and other ways of financing should be encouraged and supported. Enterprises with good development prospects and economic efficiency should be allowed to issue more bonds and stocks.

Thirdly, all kinds of measures and policies should be adopted in line with different circumstances of the areas along the line and the requirements of major industries and central cities, to support the development of agriculture, power industry, commerce and trade and tourism so as to make them pillar and lead industries along the line. Priority support should be given to cities and areas where their positions are good and have big development potentials so that they will become large cities with big diffusion power. At the same time, energetic efforts should be made to help and support the economic development of the old revolutionary base areas, mountainous areas and poor areas and accelerate the pace of ending poverty and embarking on the road to prosperity.

## INTEGRATED TRANSPORTATION AND DEVELOPMENT POLICY IN AREAS ALONG THE BEIJING-KOWLOON RAILWAY

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The opening to traffic of the Beijing-Kowloon Railway and the return of Hong Kong to the motherland will have a great impact on the distribution of economic construction of the whole country and the social and economic development of the areas along the line. The article attempts to explore mainly how to establish a perfect integrated transportation system and fully display the role of the railway in promoting the economic development along the line.

#### 1. Current Conditions of Transportation Along the Beijing-Kowloon Railway

#### (1) Regional and economic features

The Beijing-Kowloon railway runs through nine provinces and municipalities, that is, Beijing, Tianjin, Hebei, Shandong, Henan, Anhui, Hubei, Jiangxi and Guangdong, to reach Shenzhen and links with Kowloon of Hong Kong. It is 2,536 kilometers long, covering 98 counties and cities. The regional and economic features of the area are:

- a. The railway is situated in between the Beijing-Guangzhou and Tianjin-Shanghai railways and at the junction between the eastern and central parts of the country or the first step for the economy of the eastern part to extend to the central and western parts.
- b. In the section north of the Yangtze River, the railway runs through the edges of various provinces and cities and in the section south of the Yangtze, it passes through the central part of Jiangxi and eastern part of Guangdong, which are the less-developed areas awaiting development in the nine provinces and municipalities.
- c. The common feature of the economic structure is that the primary industry is the main undertaking, the secondary industry is backward and the tertiary industry is underdeveloped. Although rich in natural resources, the development level is low.
- d. Apart from Nanchang, most of the cities along the line are medium-sized and small cities.

#### (2) Current conditions of transportation

- a. Number and state of railways. The south-north artery crosses a number of lesser railways, including the Shijazhuang-Dezhou, Xinxiang-Heze-Yanzhou, Lianyungang-Lanzhou, Luohe-Fuyang, He-Jiujiang, Hangzhou-Ganzhou, Guangzhou-Meixian-Shantou lines.
  - b. Number and state of roads. Parallel with the Beijing-Kowloon railway are the No. 106,

105 state highways; crossing the railway horizontally were the Beijing-Shenyang, Beijing-Tianjin, Qingdao-Jinan-Shijiazhuang, Lianyungang-Xuzhou-Zhengzhou, Hefei-Wuhan, Shanghai-Nanchang-Changsha, Fuzhou-Nanchang-Wuhan, Xiamen-Ruijin-Jinggangshan-Changsha, Ruijin-Ganzhou-Shaoguan and Fuzhou-Shantou-Huiyang-Guangzhou state highways.

- c. Conditions of waterway shipping.
- d. Conditions of air transport.

#### 2. Role and problems of the Beijing-Kowloon railway

#### (1) Basic conditions of the Beijing-Kowloon Railway

The main line of the Beijing-Kowloon railway is 2,381 kilometers and the two liaison lines from Tianjin to Bazhou and from Macheng to Wuhan are 75 kilometers and 80 kilometers, respectively. The Beijing-Xiangtang section is a double tracker; Xiangtang-Changping section is a single tracker and Changping-Shenzhen is a triple tracker. The designed capacities are: 70 million tons for the Beijing-Fuyang section, 50 million tons for Fuyang-Xiangtang section, 30 million tons for Xiangtang-Longchuan section, 15 million tons for Longchuan-Changping section and 36 million tons for Changping-Shenzhen section. The railway opened to traffic on September 1, 1996. It is subject to the jurisdiction and operation by the Beijing, Jinan, Zhengzhou, Shanghai and Nanchang railway bureaus and the Guangzhou Railway (Group) Company.

Starting from April 1, 1997, 18 pairs of trains started operation in the Shijiu section and 30 pairs of cargo trains started operation in the Shangqiu-Fuyang section.

#### (2) Important role of the railway

- a. It has improved the communications conditions along the line and facilitated 98 counties and cities in their communications with the outside world.
- b. It has improved the distribution of railway network, eased the strained situation of transportation, promoted the economic development of areas along the line, which will become a new growth belt.
- c. It has brought about a new pattern of opening to the outside world, improved the investment environment along the line and it will play a major role in maintaining prosperity and stability in Hong Kong and Macao and bringing the ties between Hong Kong, Macao and the inland closer.

#### (3) Problems with the railway

- a. Communications network is not perfect;
- b. It is not well connected with other means of transport; work remains to be done in rail-waterway through transport and in making roads the main part for the collection and distribution of goods transported by railway.
  - c. The carrying capacity is big, but the sources of goods are inadequate.
- d. The management system of the railway remains to be reformed to meet the market demand.

- 3. Bring the Role As Trunk Line Into Play And Improve the Integrated Transportation Network
- (1) Basic thought for developing transportation in the area

The railway has become a backbone of the nine provinces and municipalities and what is needed is to improve and develop an integrated transportation network. At the same time, the economic development along the line and the urbanization should be brought into harmony with the construction of communications. The Beijing-Kowloon railway should be made the trunk that should be lined with railways in the horizontal direction, with its coverage expanded. The role of roads, waterway shipping and air transport should also be brought into play. Motor ways should be built section by section.

(2) To increase distribution of industrial projects, especially power projects, to stimulate demand for transportation.

Based on the railway, efforts should be made to adjust the industrial distribution and accelerate the construction of power plants (Fuyang, Jiujiang, Fengcheng, Ji'an and Ganzhou) so that the railway will carry coal from the northern China to southern China. The development of industry will bring about an overall development of the economy and the demand for transportation in the area.

- (3) To improve the matching projects and strengthen the construction of railways that will connect with it.
- a. To connect up the Shanmu-Jinan with the Beijing-Kowloon railway to share the burden of carrying coal from northern China to southern China.
- b. To build Handan-Jinan railway to open up a new route for carrying coal from Shanxi to southern China.
  - c. To build the Shanguan-Ganzhou-Longyan railway.
- (4) Development of road, waterway and air transport along the Beijing-Kowloon railway
- a. Road: To build high grade motor road section by section (Shangqiu-Fuyang, Nanchang-Jiujiang, Nanchang-Ji'an-Ganzhou) along the No. 106 and 105 state highway; speed up the construction of provincial roads, especially those leading to backward areas.
- b. Waterway: To build Jiujiang into a rail-water through transport hub as an outlet to the sea for Jiangxi province; to build the Huizhou port, with rail-water through transport facilities and to collect and distribute goods through Dongjiang River.
- c. Air: To expand the Xiangtang Airport and build airports in Fuyang, Shangqiu and Ganzhou.
- 4. Policies for the Development of Transport Along The Line
- (1) The state should continue to support the construction of transport facilities
  - a. To arrange more projects along the line and support them financially;
  - b. To bias policies toward the area.

(2) Areas along the should strengthen cooperation, unify their planning and coordinate their development.

The areas along the line should break away with regionalism and build up a sense of Beijing-Kowloon economic cooperation belt and, on the basis of economic development plan, formulate an integrated transportation development plan.

- (3) Funds should be raised through multiple channels.
  - a. To establish a communications construction fund;
  - b. To make full use of domestic securities market;
  - c. To actively utilize foreign capital.

# A STUDY OF THE DISTRIBUTION OF PRODUCTIVE FORCES ALONG THE BEIJING-KOWLOON RAILWAY

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### 1. Basic Features of the Distribution of Productive Forces along the Beijing-Kowloon Railway

#### (1) Industrial structure is at a low level.

Since the reform and opening up, many areas along the line have moved from the single agricultural economy to a modern economy, with the secondary and tertiary industries developing fairly rapidly and the industrial structure improved markedly. But, as the proportion of the primary industry is too big, the problem of low level in industrial structure remains outstanding. In the industrial composition, general processing industry makes up a large proportion and there are few high technology, high added value and high efficiency enterprises and products, lacking modern industries that could lead in the upgrading of industrial structure along the railway. The basic industries and infrastructure facilities are backward and lead industries are not obvious; industrial structures of all places are convergent and rising industries are slow in development.

(2) Distribution of productive forces is uneven, with co-existence of traditional industries and rising industries.

The most prominent feature of the economic development along the Beijing-Kowloon railway is that both ends of the railway and Nanchang, Jiujiang and places near Wuhan are developed economically and the rest areas are fairly backward, with co-existence of developed cities and impoverished mountainous areas. The dual economic structure is obvious and there is a big disparity in economic development among the areas along the line.

#### (3) Telecommunications facilities are backward.

Infrastructure facilities, especially the basic facilities of agriculture, are very backward. Although the railway may change the transport conditions and the areas along the line have exerted themselves to develop infrastructure facilities, the problem of backwardness in this respect is still very outstanding, seriously restricting the economic development of the areas along the line.

(4) The area lacks pillar industries and flagship products.

Generally speaking, the enterprises in the areas along the line are small in scale and poor in economic results. State owned large and medium-sized enterprises lack the necessary vitality.

There are no pillar industries. The equipment of enterprises is aging and outdated and products are low in technical contents, lacking the market competitiveness. The industries along the line are quite convergent, with little mutual complementariness. Regional protectionism and market segmentation are very serious.

### 2. Opportunities Brought by the Beijing-Kowloon Railway to the Rational Distribution of Productive Forces Along the Line

(1) The railway has prepared favorable conditions for the distribution of advanced productive forces along the line.

The areas along the line are mostly grain and cotton producing areas in China and abound in natural resources, agricultural resources and tourism resources. But development is relatively slow and productivity level is low. The Beijing-Kowloon Railway will greatly ease the strained situation in transportation in the area and provided the opportunities for building advanced productive forces on a larger scale and higher level.

(2) The railway has laid a solid foundation for upgrading the industrial structure along the line.

The railway has helped expand exchange with the outside world. Agriculture and rural economy along the line will break the traditional development model and develop toward industrialization and commercialization. The secondary industry will be adjusted, optimized and advanced; the tertiary industry will develop at a high speed. All these will help accelerate the process of industrialization.

(3) The railway is conducive to adjusting the economic structure and solving the problem of duplicated construction at a low level.

With the completion of the railway and the deepening of reforms in the areas along the line, the segmentation resulting from the traditional economic system will change and market mechanism will play its due role; production factors will be concentrated on better performing enterprises and promising construction projects. The state and the areas along the line have regrouped state property in stock through incremental adjustment and effectively solved the problem of irrational structure and low level duplicated construction.

(4) The railway will stimulate the pace of reform and opening in the areas along the line.

With the completion of the line, areas along the line can better learn and borrow the good experience in reform and opening in the eastern coastal areas to expand opening up and raise the level of opening. They will intensify their ties and exchange with the eastern coastal areas. With the improvement in transportation and other basic facilities, it is also necessary to open up special economic zones and economic and technical development zones where preferential policies should be adopted to accelerate development. At the same time, they may better use the advantages of Hong Kong and Macao to stimulate economic development, reform and opening up.

#### 3. Option of Major Industries for Development Along the Line

#### (1) To accelerate development of agricultural resources and rural economy.

In developing rural economy, the areas along the line should follow the road of developing agriculture based on agriculture, forestry, livestock breeding, sidelines and fisheries. Under the preconditions of good water conservancy, it is necessary to make full use of all agricultural resources to raise the level of intensive operations. It is necessary to continue the principle of not relaxing grain production and energetically diversifying the operations, develop township enterprises to raise the income of peasants and make great efforts to improve basic facilities and production conditions for agriculture.

(2) Accelerate the construction of communications, telecommunications and other infrastructure facilities.

There should be easy transportation channels and telecommunications networks along the Beijing-Kowloon Railway in order to raise the grade of the line and build and perfect the communications facilities. It is necessary to give full scope to the communication hub role of large and medium-sized cities along the line and the diffusion role of the communications facilities of medium-sized and small cities to raise the comprehensive carrying capacity and strive to make the areas along the line to have an integrated transportation system with the rail transport as the backing and large and medium-sized cities as communications hubs, with rail, road, waterway and air transportation supplementing to each other. Energetic efforts should be made to develop fiber optical cables and microwave telecommunications to accelerate the construction of postal hubs and expand municipal telephone network capacity.

(3) Develop the energy industry energetically and accelerate the development hydropower and coal.

Energy industry is quite developed along the line. Attention should be paid to accelerating the development of coal resources and gradually building the areas into an energy production base and a power supply center. Efforts should be made to develop petroleum and natural gas resources and build petrochemical bases.

#### (4) Promote the development of raw materials industry.

The emphasis in this regard is on the industries and products with resources advantages. In chemical industry, emphasis should be put on farm chemicals and refined chemicals. With regard to building materials and non-metallic mining industry, large and medium-sized cement works should be built in areas with easy communications and ample energy supply and efforts should be made to develop walling and decorative materials and other new type building materials and speed up the development of non-metallic minerals and deep processed products. In metallurgical industry, rational development should be made of iron ore, tungsten ore and copper resources.

(5) Speed up the development of machinery, electronics, light industry and textiles.

The opportunity of the industrial structural adjustments in the coastal areas should be seized to develop machinery, electronics, light industry and textiles, striving to bring the industries in the areas along the line onto a new level. Technical transformation should be

stepped up in enterprises producing motorcycles, automobiles, inner combustion engines and auto parts. The development of food packaging machinery, engineering machinery and parts, farm machinery and small farm machines and implements should be developed. Emphasis should be put on the development of telecommunications, computers and electronic information systems. New products should be developed in food industry, feed industry by employing biological technology and high energy-efficient equipment so as to promote the upgrading of the food industry. With regard to textile industry, efforts should be made to develop cotton, silk and ramie textiles according to market demand and by making full use of the locally available cotton, cocoons and ramie and produce more export products.

#### (6) Develop tourism by making full use of rich tourism resources.

The areas along the line should build a tourism industry that covers tourism resources development, service, tourism commodities production and sales and entertainment facilities. The tourism industry should target at both domestic tourists and foreign tourists. At the same time, transportation facilities, commerce and services associated with tourism should be developed so as to promote the formation of a tourism network and a tourism belt.

### 4. Recommendations on the Distribution of Productive Forces Along the Beijing-Kowloon Railway

(1) To strengthen agricultural and make the rural economy flourish in an all-round manner.

On the basis of the existing investment in agriculture, new channels should be opened up to increase input into agriculture. Large and medium-sized businesses should be encouraged to get themselves involved in agricultural development so as to form a mechanism in which industry helps develop agriculture and agriculture helps develop industry to make up for what is short in agriculture and take along agriculture by industry. It is essential to strengthen the opening of agriculture and attract foreign capital, technology and management expertise through multiple channels and in multiple forms. Efforts should be made to accelerate the agricultural comprehensive development and follow the strategy of invigorating agriculture by relying on science and technology and the road of high-yielding, high quality, low cost and high efficiency agriculture. Whenever local conditions permit, efforts should be made to diversify the operations and put emphasis on the development of township enterprises.

(2) Deepening reform in an all-round manner and give full scope to the market mechanism in the allocation of resources.

It is essential to accurately grasp the basic features of modern enterprise system, that is, "clear definition of property right, rights and responsibilities, separation of management and administration and scientific management", and combine reform, regrouping, transformation of state enterprises with strengthening management. Efforts should be made to hasten the pace of the shift in operational mechanism so that most large and medium-sized backbone enterprises along the line will become modern enterprises by the turn of the century. The optimization of the distribution and structure of state property and organizational setup should be integrated with the efforts to optimize investment structure, supporting the best ones, promoting association and eliminating the worse by merger, acquisition or bankruptcy.

#### (3) Expand opening to the outside world and implement the opening-pulled strategy.

The areas along the line should make full use of the favorable conditions and diffusion role of the open cities along the line to promote the opening up to the outside world. Energy development, communications projects and other infrastructure facilities should be open to the outside world. Active e forts should be made to import advanced technology to develop high added value and foreign exchange earning agriculture. It is necessary to improve investment environment and expand the areas for foreign investment and the scale of the utilization of such investment. Foreign investors should be encouraged to involve in capital construction projects and technical transformation of existing enterprises encouraged by the state.

#### (4) Promote horizontal association and cooperation

Efforts should be made to develop and promote horizontal association and stimulate trade exchanges, economic cooperation and technical exchange among all areas along the line so that they may study and coordinate their steps in major development problems.

#### (5) Speed up personnel training and import and promote technical progress.

Earnest efforts should be made to strengthen basic education and popularize the nine-year compulsory education. Greater efforts are required to develop vocational and technical training to improve the quality and skills of laborers. At the same time, great efforts should be made to train senior technical and professional and management personnel. Preferential policies should be worked out to encourage and attract technical personnel from cities. The organizational structure of researches should be optimized and personnel should be diverted in a rational manner. Enterprises should strengthen their cooperation with research institutions and universities and colleges and actively apply mature and adaptable advanced technologies.

(6) Do well in the planning and coordination of economic development and promote the shift in economic growth mode.

It is necessary to formulate and improve the development program and support measures, especially in infrastructure construction, major industries and the distribution of productive forces. The development zeal of the areas along the line should be directed toward the full utilization of existing foundations and the correct handling of the relations between new projects and existing base. Big efforts should be made to do well in the economical and effective use of resources, optimize the organizational structure and investment structure of enterprises. All kinds of economic policies and means should be employed fully to restrict extensive operations and encourage intensive operations.

#### (7) Priority should be given to resources development and infrastructure projects.

During the Ninth Five-Year Plan period, the state should continue to arrange some big projects that will stimulate a rapid economic development in the impoverished areas along the line, support the people along the line to strengthen construction of telecommunications projects, control rivers and lakes and the ecological environment. Concentrated efforts should be made to construct a number of backbone projects and support the construction of pillar industries and develop energy and major raw materials. Efforts should also be made to guide and support the

movement of resource processing industry, labor-intensive industry and primary processing industry from the coastal areas.

#### (8) Increase investment in areas along the line.

The state should increase its investment in the economic development of the areas along the Beijing-Kowloon railway and gradually increase fiscal support an dedit support to help them improve investment environment. More enterprises that perform well and conform to the state industrial policy should be allowed to list on the stock market and issue more shares to expand direct financing. Practical and effective measures should be taken to direct foreign investment and investment from domestic developed areas to invest in areas along the line. Joint stock non-banking financial organizations should be established to attract domestic and foreign investment. Policies should be biased toward impoverished areas to support them in their economic development and end their poverty.

# SELECTION, DISTRIBUTION AND WAY OF DEVELOPMENT OF LEAD INDUSTRIES IN THE BEIJING-KOWLOON ECONOMIC BELT

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### I. Assessment of The Conditions for the Development of the Industries In the Beijing-Kowloon Economic Belt.

The environmental conditions for the economic development along the Beijing-Kowloon railway may be summarized as follows: (1) Rich land resources; (2) ample cheap labor supply; (3) rich farm and sideline produce; (4) rich non-metallic and rare metal resources; (5) rich tourism resources; (6) superior geographical locations (close to the coastal areas and the Bohairim economic sphere, the Yangtze River Delta, the Pearl River Delta and the golden river course of the Yangtze which passes through the middle section.) The disadvantages are: (1) lack of large energy and metal resources urgently needed by the state; (2) serious water shortage in the northern section; (3) lack of large and medium-sized cities with considerable economic strength as development poles, except both ends; (4) most areas are situated in the provincial junctions, with weak economic foundation; (5) lack of strong research institutions or universities.

#### (1) Position is relatively superior, and communications conditions have improved.

The railway links Beijing and Tianjin in the north and Hong Kong in the south, close to the Bohai-rim area, the Yangtze River Delta, the Pearl River Delta. The golden river course of the Yangtze passes through the middle section. It enjoys the advantage of absorbing economic diffusion by the coastal areas.

The building of the railway has greatly improve the communications and geographical conditions of the areas along the line. It crosses nine east-west railways in the near future and 13 in the distant future and joint the golden water channel of the Yangtze at Jiujiang, creating many crossings. Road networks are criss-crossed along the line to link up cities with rural villages. The quality of the roads have been improved. In general, the communications conditions for economic development are very favorable for the development of industries and emerging cities and for the formation and development of economic centers.

#### (2) Natural resources

The areas along the Beijing-Kowloon railway abound in agricultural resources. The part north of the Yangtze is part of the Yellow-Huaihe-Haihe plain; the part south of the Yangtze are mostly hills, rivers and lakes. It enjoys a temperate climate, with ample sunshine and heat, favorable for industrial activities to unfold spatially and commodity agriculture to develop. The

areas produce wheat, rice, corn, cotton, cocoons, rape seeds, tobacco, hemp, vegetables and melons, oil tea, tea, and medicinal herbs. Forestry resources include paulownia, pine, cypress and bamboo; such breeding industries as yellow ox, goats, poultry and rabbits are quite developed. The resources of wildlife and native produce are also rich. Many of the national or provincial major commodity grain, cotton, cocoon, forestry, yellow ox, goat skin and rabbit hair production bases are situated in the areas.

Areas along the line north of the Yangtze River boast energy resources and a few nonmetallic minerals. Areas along the line south of the Yangtze are rich in the resources of rare metals and building materials in hilly areas. The northern section does not have much mineral resources, although there is a certain amount of energy reserves. The Dabie Mountainous area is rich in non-metallic ores. Fuyang, Shangqiu and Heze have coal reserves of a certain scale. Good in quality, the coal promises bright prospects for development. Langfang, Cangzhou, Puyang and Liaocheng boast a certain amount of petroleum and natural gas resources, but the reserves are inadequate. There are virtually no metal resources. But the resources of nonmetallic ores are rich and concentrated. Taimai in Qichun is noted for its high quality quartz reserves, with effective contents reaching 99.99%. Hong'an is one of the three major fluorspar mines in the country, with high grade and big and concentrated reserves. Fuyang is noted for its high quality marble that is popular both at home and abroad. The quality granites and yellow sand in Fuyang and Huanggang are also of great commercial value. Rare-earth reserves in the south are the biggest and best in the world. Jiangxi is known as "Kingdom of rare metals", with concentrated distribution of copper, tungsten, titanium, niobium and uranium. The tungsten reserves and output in southern Jiangxi rank first in the country. All these provide the sound basis for developing such industries as energy, chemicals, building materials and metallurgy.

Tourism resources include famous rivers and mountains, summer resorts, local customs and conventions, historical sites and famous cultural cities. A proper development will give rise to a colorful tourism industry.

#### (3) Ample labor resources

The labor supply is ample along the line and their wage levels are far lower than coastal areas. It is rather favorable for developing labor-intensive industries. The monthly wage in Jiangxi is only one third that in the Pearl River Delta, favorable for developing textiles and garment making industries. But the educational quality of labor is low. There is a lack of entrepreneur groups who know the market and are good at management and pioneering new paths, thus unfavorable for industrial development.

The land price is also low. That is conducive to lowering production cost and reducing investment, favorable for sharpening market competitive edge.

#### (4) Upgrading and outward diffusion of the industrial structure in the coastal areas.

Since the introduction of reform and opening policy, the coastal areas are already quite developed through two decades of development. Their industries are moving toward a high level and some industries are moving out of the area. Many places along the Beijing-Kowloon

railway have the conditions of accepting such industries, especially power, raw materials and textiles, so as to form a new economic belt.

Besides, the governments at all levels along the line have produced many preferential policies to attract domestic and foreign investors, creating a relaxed policy environment.

#### II. Principles for Developing the Lead Industries

The development of lead industries, especially in manufacturing, is key to the formation and development of the Beijing-Kowloon economic belt. The specific conditions in the areas along the line determine that the lead industries must meet the following requirements:

- (1) To develop on the existing economic foundation. Although the areas along the line are relatively backward in their economies, the past development has laid the foundation and some industries promise bright prospects for development. So, lead industries for future industrial belt must be based on the existing foundation and they should be selected from among the existing industries and developed with more technology and funds and on a larger scale. Only by doing so, is it possible to speed the formation and development of the industrial belt. At present part of the advantage industries are taking shape, especially agriculture, electronics, textiles, food processing, machinery and chemicals. Electronics industry accounts for about 12% of the total industrial output value and machinery, about 10%. These industries will continue to display their due roles as pillar industries.
- (2) To fall in with the state industrial policies. At present, China has given priority to the development of energy, communications and high technology and restrict the development of wines and textiles. In line with the state policies, the areas along the railway should develop energy industry, machine-building and electronics in areas where there are the conditions.
- (3) To meet the requirements of regional significance and regional cooperation. Integration of market and regionalization of economy represent the development trend of the present-day economy. The determination of lead industries according to own conditions do not go along with the requirements of economic development. On the contrary, they must be fixed from the angle of regional cooperation and market demand. The railway is at the juncture between the eastern and inland areas, with favorable geographical advantages. The coasts are the important areas for economic development and also one of the most developed regions. With the development of the economy and the upgrading of the industrial structure, part of the industries will be moved to the inland and at the same time require the inland to provide the guarantee for their economic development in terms of raw materials and energy. The areas along the line have the conditions incomparable by any other region. Close to the coasts and easy in communications, the areas are the areas of first choice for the coastal areas to move their industries and can provide the coastal areas with energy and raw materials. So the development of lead industries along the line must be closely linked with the development of the coastal regions.

- (4) Associability and lead role of industries. In fixing the lead industries for areas along the line, full consideration should be given to their associability and their role of taking along other industries. First of all, it is necessary to pay attention to their roles to stimulate agricultural development. As the areas along the line are mostly agricultural, with grain, cotton, oil-bearing crops, forestry and fruit and vegetable production occupying an important position, the development of lead industries must be closely associated with agriculture, making it develop towards integration of agriculture, industry and trade. Secondly, it is favorable for the formation and development industrial chains, such as cotton processing—cotton spinning-printing and dyeing-clothes making, silk spinning-printing and dyeing-and clothes making. Thirdly, it must facilitate the development of corresponding enterprises, such as electronic elements and parts and auto parts.
- (5) Technology contents and progress. The general level of industries along the railway is limited and technology contents are low. The development of future lead industries should be focused on industries with high contents of applicable technology and use large number of laborer, with attention paid to both development and application.

The future lead industries should mainly include agriculture, machine-building and electronics industry, power, textiles, food processing and chemicals.

Agriculture should focus on the development of high quality, high efficiency and high yield agriculture. This means that, on the basis of ensuring stable increase in grain production, efforts should be made to develop farm product in bulk and famous, superior quality, rare, special and new products for both home consumption and for export. It is, therefore, necessary to build factory farms and introduce the "company plus peasant household" form of organization to unite the operations that are scattered among the peasant households so as to form a development series that add values at every level. Apart from developing grain production bases, vegetable production bases, and comprehensive and specialized production bases for tea, mulberry and timber, efforts should be focused on the development of production bases for high agriculture:

(1) The Yellow-Huaihe-Haihe arid farming and cattle production base; (2) Nanchang-Jiujiang Poyang Lake aquatic breeding base; (3) Ji'an-Ganzhou red soil hilly areas orange production base; (4) Heyuan-Huizhou-Shenzhen subtropical fruit production center; and (5) Beijing-Kowloon commodity fruit and vegetable belt.

Industry should focus on the development of machine-building and electronics production bases featuring home electrical appliances, telecommunications facilities, automobiles and parts, textiles and deep processing industrial belt, power industry belt and special food processing belt.

The tertiary industry should focus on tourism while developing commerce and trade.

#### III. Development of Lead Industries

At present, the total industrial output value of the areas along the Beijing-Kowloon railway

accounts for about 5% of the national total. In order to promote a rapid development of the Beijing-Kowloon industrial belt, the state and governments at all levels along the line should work energetically to bring the total industrial output value to 7-8% of the national total in about 20 years' time, that is, around 2010, so that it will become a fairly developed industrial belt. The focus should be put on the development of machine-building, electronics, textiles and its deep processing, power, food process and chemicals.

1. Machine-building and electronics. The areas should be made a machinery and electronics products production base featuring home electrical alliances, telecommunications equipment, automobiles, and refrigerating equipment. There is some foundation for machinery and electronics along the line. Shenzhen and Huizhou constitute one of the six electronics towns in the country. Ji'an is the electronics production base for Jiangxi Province, with output value accounting for one third of the provincial total; Shangqiu is a nationally important refrigerating equipment production center; Liaocheng and Nanchang are auto production bases of a certain scale. In a word, machine-building and electronics promise bright prospects for development.

In the future, there should be more technical investment in the electronics industry, with emphasis put on the following series of products. (1) To develop mechanoelectronic products by using the existing foundation and strengthen the industrial strength of Shenzhen, Huizhou, Ji'an, Nanchang, Jiujiang, Shangqiu and Liaocheng. (2) To focus efforts on consumer electronics and investment electronics. While consolidating the consumer electronics production in Shenzhen and Huizhou, major efforts should be made to develop investment electronics, such as microelectronics, computers, laser equipment, optic guide fibers, optic fiber telecommunications equipment and sound systems. In the northern section of the railway, efforts should be made to prepare the conditions to develop telecommunications cables, computer parts. (3) To develop refrigerating equipment. With Shangqiu Bingxiong Group as the flagship, efforts should be made to develop refrigerating equipment such as refrigerators, ice boxes and refrigerating trucks. (4) The areas should make full use of such auto production enterprises as Suzuki of Jiangxi, heavy-duty trucks and buses of Liaocheng and make great efforts to develop the auto industry in the southern part along the railway, with emphasis on light trucks, passenger/trucks, minivans, heavy-duty trucks and buses, and step up cooperation with the No. 1 and No. 2 motor vehicle plants and foreign auto manufacturers to develop auto parts. (5) To develop farm use vehicles and machines. With the development of factory farms, mechanization of farming is an inevitable trend. For this purpose, farm use vehicle production bases should be built in Heze and Fuyang.

2. Textiles and its deep processing industry. Textile industry is a pillar along the Beijing-Kowloon railway, especially in the northern section. Cotton textile industry is mainly concentrated on Liaocheng, Heze, and Jiujiang; woolen textiles are concentrated on Shangqiu and Fuyang; silk textiles are concentrated on Ganzhou, Ji'an and Huanggang. The weak points of the industry are the lack of deep-processing and refined processing, variety, small scale of enterprises, production matching abilities, low level of technical equipment and less name brand and flagship products.

As one of the lead industries along the railway, textiles must develop towards high grade,

great variety, serialization and deep processing. (1) Great efforts should be made to develop high grade pure cotton textiles, special cotton textiles and garment making so as to form the cotton textile-printing and dyeing-high grade processing and deep processing series. According to the state policies for developing textile industry and the characteristics along the line, efforts should be made to organize group production to raise the overall strength of the textile industry in the areas, paying full attention to high grade yarns and garments production so as to promote the development of the whole textile industry. (2) To develop high grade light, thin cashmere woolen fabrics, silk-wool fabrics, mainly in Shangqiu and Fuyang. (3) To develop silk textile industry, chiefly in Ji'an, Ganzhou and Heyuan, and make it a silk textile base of national significance. Apart from improving technical quality in dyeing and printing, efforts should be made to develop printing and dyeing capacity and technology to produce more marketable products.

3. Power industry. Although the power industry is very weak and small in scale, it should be an important pillar industry along the railway, as its development has important regional economic significance. First of all, as a base industry, it is favorable for the formation and development of the Beijing-Kowloon industry belt. Secondly, it can be made the secondary energy supplement belt of the coastal area to facilitate their high speed development and upgrading of structure. Thirdly, it can promote the formation and development of industrial centers and industrial convergence belt.

It is, therefore, necessary to prepare the conditions and win the support of the state and all quarters, use the communications advantage, rationally select geographical locations and, according to the requirements of regional economic development, form a power industrial belt of regional significance, with a total generating capacity of 20 million kW. In the near future, there will be built a number of "road crossing" power plants, with the total generating capacity reaching 10 million kW by 2000. These include the third phase project of the Jiujiang Power Plant, Fengcheng Power Plant, Heze Power Plant, Hengshui Plant, Fuyang Power Plant and Yongcheng Power plant. In the distant future, that is, by about 2010, the total generating capacity will be brought to about 20 million kW to form a powerful power industry belt to meet the needs of the industrial development along the line and at the same time satisfy the demand of the coastal industries. During this period, new power plants will be built in Ji'an, Liaocheng, Ganzhou and Huangzhou. What is worth pointing out is that the development of the power industry in the northern section must take into full consideration the water supply and regional balance.

4. Food processing industry. It is necessary to build food of special flavors, fast food, green food and name brand food and related industries. As the foundation of agriculture is good along the line, it has promoted the development of the food processing industry. But the enterprises are small in scale and few in name brand products and low in market share and less competitive regionally. In the future major efforts should be made to develop flagship products: such as such name brand products as Gujing Gong, linhe, Site and Hengshui spirit, especially wines of low alcohol content, health tonic and medicated wines while giving due consideration to the development of grape wine and beer; dehydrated vegetables, fresh preserved vegetable,

pollution-free vegetables and other green food series; preserved duck, black-boned chicken and aquatic products processing; and fast food series as demanded by the market.

5. Chemical industry. At present, the main products should be medicinal chemicals, petrochemicals and chemical raw materials, which should be mainly concentrated in Shenzhen, Nanchang, Shangqiu, Liaocheng and Hengshui. Emphasis for the future will be: (1) medical chemical industry, with Nanfang Pharmaceutical Plant of Shenzhen, Jiangzhong Pharmaceutical Plant in Nanchang, Guangji Pharmaceutical Plant of Huanggang, Dong'ah Ass Skin Glue Group of Liaocheng and auxiliary medical materials of Liaocheng as flagship manufacturers to develop new products to occupy home and international markets; (2) petrochemicals. It is necessary to make full use of the Shell petrochemical project in Huizhou for comprehensive development and use the advantage of Zhongyuan oilfield and the Huabei oilfield to develop petrochemical industry. (3) coal-power-chemical integrated development by taking advantage of the anthracite coal in Yongcheng; (4) trace element fertilizer, composite fertilizer and green farm chemicals.

In addition, some areas may develop non-ferrous meal and building materials and even paper making by taking advantage of their unique conditions.

#### IV. Development and Distribution of Industrial Centers

1. To strengthen the development of industrial centers is an effective model for the formation and development of the Beijing-Kowloon industrial belt.

"Point-axle system" is the most effective model for the development of industrial belt while the development of industrial centers is the heart of the "point-axle" development model. It is, therefore, necessary to concentrate efforts on developing industrial centers while building up cities along the line, so as to display their concentration effect to form economic growth poles at different levels and with multiple functions to take along the development of the whole region.

In as far as the Beijing-Kowloon industrial belt is concerned, the strengthening of industrial centers is the construction of industrial cities. And in this, there is obvious advantages. First, it is favorable for the display of the rational utilization of resources and the concentration effect. The areas along the railway belong to the less developed region, where resources development and utilization are low, economic efficiency is poor, funds are lacking, enterprises are small in scale, falling far short of the needs of great production of modern market economy, retarding the process of industrialization and weakening the competitiveness. The completion of the railway has provided the guarantee for industrialized production. Each city should take the best advantage of their locational conditions to strengthen their own industrial centers so as to raise the utilization rate of limited funds and the degree of resources development and form mutually associated industrial groups that will display the concentration effect and raise their own development capabilities. Secondly, it is useful for the development of export-oriented economy. With the technical progress and market economic development, it requires enterprises to have a rational scale and strength in order to meet the demand of market competition. To strengthen the development of industrial centers along the line may enhance the economic strength and

competitive edge and promote the development of export-oriented economy. Thirdly, it may stimulate the industrial structural adjustments and the rise of new industries. Now the industrial structure along the railway is at a low level, because industry is not developed and the urbanization level is low. To change the situation, it is necessary to follow the road of developing industrial centers whereby to promote the development of cities, taking along the development of the tertiary industry and preparing the conditions for the development of new industries.

Table 1 Locational Conditions of Major Industrial Centers Along the Beijing-Kowloon Railway

City	Regional	Communication	Communicatio	Ties with coasts	
	administration, and economic function	s conditions	ns function	port distance	
				(km)	
Bazhou	County level central city, peripheral city of Beijing and Tianjin	At the juncture of Beijing-Kowloon and Tianjin-Bazhou and Baoding-Bazhou lines, No. 106 State Road	Liaison transit point among trunk lines	Tianjin	120
Hengshui	Regional economic and administrative center	At the juncture of Beijing- Kowloon and Shijiazhuang- Dezhou railways	Confluence of trunk railway	Tianjin	340
Liaochen g	Regional economic and administrative center, neighboring on Qingdao-Jinan industrial belt	At the juncture of Beijing- Kowloon and Jinan-Handan railway	Confluence of trunk railway and general trunk line	Qingdao	490
Heze	Regional economic and administrative center	At the juncture of Beijing- Kowloon and Xinxiang- Yanzhou railway	Confluence of trunk railway	Rizhao	455
Shangqiu	East Henan	At the juncture	Confluence of	Lianyung	370

	political and	of Beijing-	trunk lines	ang	
ļ ·	economic center	Kowloon and			
		lianyungang-			
		Lanzhou railway			
Fuyang	Northwestern	At the juncture	Communicatio	Lianyung	450
	Anhui political	of Beijing-	ns center	ang	
}	and economic	Kowloon,			
	center	Luohe-Fuyang			ļ
		and Fuyang-			
		Huainan	!		
		railways	ī.		
Jiujiang	Second largest	At the juncture	Communicatio	Shanghai	856
	city in Jiangxi	of Yangtze,	ns center		
		Beijing-			
		Kowloon,			
		Wuhan-Jiujiang			
		and Tongling-			
		Jiujiang			
		railways			
Nanchan	Jiangxi	At the juncture	Communicatio	Shanghai	837
g	provincial	of Hangzhou-	ns center		
	economic and	Hengyang and			
	administrative	Beijing-			
	center	Kowloon			
		railways			
Ganzhou	Southern Jiangxi	At the juncture	Regional	Shantou	510
	economic center	of Beijing-	communication		
		Kowloon and	s center		
		Shaoguan-			
		Ganzhou			
	77.77.004	railways	······································		
Shenzhen	major city in	with port,	Communicatio	Yantian	
	Guangdong,	Guangzhou-	ns center	<u> </u>	
	special economic	Shenzhen,			
	zone	Jiujiang-			
		Guangzhou and			
		Beijing-			
		Kowloon			
		railways			

2. Make use of communications advantages and regional economic base on which cities rely to develop multi-level, multi-functional industrial centers.

The industrial development of the Beijing-Kowloon economic belt should be based on the

existing cities. In the next 10-20 years, there should develop 3-4 comprehensive industrial cities of national significance, 10-15 regional industrial centers with prominent lead industries and a number of local industrial centers based on county-level cities or county seats. The development of these industrial centers is possible as seen from the communications environment, resources base and economic strength.

Communications are the key factors to the development of cities and industrial centers. In usual circumstances, cities at the confluence of trunk railways or near major ports or communications hubs are superior in development conditions and promise vast development potential. Most cities have marked role to play as industrial centers. For instance, there are 32 super-large cities in China and their communications positions and economic strength are strong. After the completion of the Beijing-Kowloon railway, six cities will be in the crossing of trunk communications lines in the near future and ten in the distant future. The location of these cities is superior and they have considerable strength industrially. In the future, they may become important industrial centers as the Beijing-Kowloon economic belt is taking shape.

In terms of regional economic foundation, some cities, such as Shenzhen, Nanchang, Jiujiang, Ganzhou and Shangqiu, have vast areas behind for attracting capital and have considerable agricultural foundation, thus favorable for the development of industrial centers. Taken the Beijing-Kowloon railway as a whole, at present, Shenzhen and Nanchang have the functions of integrated industrial centers while other cities do not. But seen from the regional angle, it is possible and necessary to develop several large industrial centers. One is the central south region of Jiangxi, which covers 65,700 square kilometers and has rich resources. But the current cities of Ji'an and Ganzhou are small in scale and weak in foundation. It is, therefore, necessary to create conditions for developing industrial centers of considerable strength. The second is the areas along the line north of the Yangtze River, where the strength of current cities is limited, lacking the strength to become industrial centers and it is possible to give birth to large industrial centers. So new industrial centers should be built in Shangqiu and Fuyang.

According to the current conditions, national integrated industrial centers should be in Shenzhen, Nanchang, Jiujiang and Fuyang; the secondary industrial centers should be Ganzhou, Ji'an, Shangqiu, Heze, Liaocheng, Hengshui, Huizhou, Macheng and Bazhou.

3. While developing lead industries along the line, efforts should be concentrated on developing industrial centers that have prominent advantages.

Emphasis of development should be put on the existing industrial cities including Shenzhen, Nanchang, Jiujiang, Huizhou, Fuyang, Ganzhou, Ji'an, Shangqiu, Heze, Liaocheng and Hengshui. Conditions should be created to develop such rising industrial cities as Heyuan, Longchuang, Linqing and Bazhou.

(1) Shenzhen: It is an important industrial center along the Beijing-Kowloon railway and also a rising industrial city developed since the reform and opening. The degree of opening with regard to industry is high and the trend of internationalization is strong, exhibiting its prominent

advantages in the electronics, medicine and chemical, light and textiles industries. It will be the first industrial center in the Beijing-Kowloon industrial belt. In the future, the industrial development should develop towards the direction of capital- and technology-intensive industries with high added values and little pollution, such as electronics, machine-building, textiles, chemicals, food processing, building materials, printing, feed and power industries. Efforts should be made to strive for breakthrough achievement in high and new technology industries and create the conditions for developing computers and software, telecommunications, microelectronics and elements, new materials, biological engineering and machines integrated with electronics and meters. These centers will help push the development of northern Guangdong and southern Jiangxi.

(2) Nanchang: Nanchang is the capital of Jiangxi Province and also the large industrial city in Jiangxi and only provincial capital city and superlarge city along the line. Its industrial output value in 1993 reached 13.2 billion yuan, ranking second among cities along the line. It has its advantages in machine-building and chemicals. Food processing, textiles and metallurgy are also well grounded. The Jiangxi Suzuki Co. and the Jiangzhong Pharmaceutical Plant are operating on a considerable scale. The ratio of the primary, secondary and tertiary industries is 12:43:45, with the output value of the tertiary industry exceeding the output value of the secondary industry.

In the future industrial development should be oriented toward the market and international and domestic cooperation, with emphasis put on deep processing, export-oriented industries, high added value and high technology industries, an industrial system that geared for the 21<sup>st</sup> century. According to the existing foundations of Nanchang and the lead role of the Nanchang-Jiujiang Industrial Corridor, emphasis should be laid on the development of auto and auto parts industries, chemical industry with medical chemicals as main products, textiles industry with export products as the main orientation and electronics, machine-building and metallurgy. At the same time, industrial sub-zones should be perfected.

(3) Jiujiang: It is the third largest city along the line, ranking fourth in industrial output. Its main industries include petrochemicals, textiles, machine-building as well as building materials, leather and food processing.

But the city is superior in geographical location, on the confluence of the railway and the Yangtze and an open city along the river. It is also an important city in the Nanchang-Jiujiang Industrial Corridor, promising good prospects of development. The emphasis of development in the future should be chemical industry using downstream products of petrochemical industry, machine-building industry with shipbuilding as the main undertaking, export-oriented textile industry and power and food processing. Efforts should be made to strengthen the construction of the third phase project of the Jiujiang Power Plant to make it an important energy base in Jiangxi.

(4) Fuyang: Fuyang is the largest city in the northern section of the Beijing-Kowloon Railway, with industrial foundation better than other cities. The regional development

conditions are also good. With easy communications, it has the conditions to become an important industrial center in the northern section of the railway. Orientation of development should be light industry, machine-building, food processing, textiles and chemicals.

Other cities may be developed as secondary industrial center. Ganzhou is the economic center of southern J angxi and a national historical and cultural city. Its industries include non-ferrous metals, forestry, food processing, machine-building and chemicals. Ji'an is noted for its electronics industry. Its development should be centered round the electronics industry. Other industries worth developing include food processing, chemicals, paper making and machine-building. Shangqiu should mainly develop refrigerating equipment, textiles, bioengineering, and electronic parts and accessories. Huizhou has electronics, textiles, petrochemicals and automobiles as its lead industries. Liaocheng should focus its efforts on developing textiles, automobiles, machine-building, medicine and food processing. Hengshui should take chemicals, food processing, textiles and machine-building as its main industries.

#### V. Development of Industries in Major Sections

#### 1. Nanchang-Jiujiang section

The section extends from Jiujiang to Nanchang, including the counties and cities under the administration of these two cities. The whole area is more than 160 kilometers long. Since 1993, Jiangxi province launched the "Nanchang-Jiujiang industrial corridor" program, which plans an industrial zone covering 466 square kilometers, direct attraction areas covering 9,200 square kilometers and extended areas of 20,000 square kilometers. This has prepared a good policy environment for the development of industries.

In terms of development conditions and environment, this section is one of the most superior sections of the railway. First, it abounds in resources, including copper, zinc and gold, a diversified agricultural resources. Poyang Lake, the largest in China, is in the area, favorable for developing aquatic breeding. Second, industry has considerable strength, with some departments having national and regional significance. At present, the Nanchang-Jiujiang Industrial Corridor boasts a total industrial output value accounting for one third of the province. Such industries as medicine, machine-building, textiles, petrochemicals and automobiles have considerable strength. Third, it is close to the coasts and situated along the Yangtze, with energy supply eased and infrastructure facilities improved. Apart from the Beijing-Kowloon railway, the area also has the Nanchang-Jiujiang express highway and such outlets as the Yangtze, Beijing-Kowloon, Hangzhou-Zhuzhou and Wuchang-Jiujiang railways and Nanchang and Jiujiang airports. All these have provided a good environment for industrial development. There are also the Jiujiang and Nanchang power plants, with a combined installation capacity reaching one million kW. Fourth, it enjoys special preferential policies for industrial development. In order to develop industry, the governments at all levels in the province have formulated preferential policies, making it favorable for attracting funds.

The Nanchang-Jiujiang area should mainly develop machinery and electronics, textiles, chemicals and medicine and extend to other areas with Nanchang and Jiujiang as the regional

centers.

Machinery and electronics industry should be centered round Nanchang and Jiujiang, with emphasis on the development of auto manufacturing and ship building. Nanchang should focus on the Jiangling light trucks to achieve serialization, high quality and economy of scale. It is necessary to seize the opportunity of cooperating with Ford of the United States to make it a light truck and tourism wagon production base. Jiujiang should fully display the advantage of shipbuilding and technical equipment to develop shipbuilding, modified vehicles and auto parts. Besides, it should develop machine-tools, instruments and meters, special purpose machinery and electronics products.

The structure of the textile industry should be optimized to develop intermediate and high grade cotton textiles and silk textiles and strive to export more products with Yaya Group as the main player.

Chemicals should be one of the lead industries in this section. Petrochemical industry should take advantage of the Jiujiang Oil Refinery and the 300,000 ton ethylene project to develop follow-up processing capacity. With Spark New Technology Development Zone as the backing, the city should make great efforts to develop organic silicon and its series products. Medical chemical should be centered round Nanchang to display fully the flagship role of the Jiangzhong Pharmaceutical Plant and Caoshanhu Group and make more investments in developing new products, preparations and biological medicine.

The food processing industry should make full use of locally available resources to develop deep processed products, fast food and food of special features of the locality.

In constructing industrial sub-zones, it is necessary to make full use of the foundations of large cities and towns and make an overall arrangements and unified planning aimed at rational development. Before 2000, efforts should be made to complete 8-10 industrial sub-zones each with an output value of 1-3 billion yuan. The sub-zones should be improved after 2000 to form an industrial corridor with the largest concentration of industries, a high degree of opening and advanced technology in the central and western parts of the country.

#### (2) Heyuan-Shenzhen area

Heyuan-Shenzhen area include Heyuan, Huizhou, Dongguan and Shenzhen, the four cities on the southern end of the railway, which are the most developed economically.

This section has a strong industrial foundation, prominent lead industries. The areas has already had specialized industrial departments with strong advantages. The electronics industry is very prominent, with a strong regional advantage and international competitiveness. The second advantage industries are textiles and sewing, whose output value making up one sixth of the total in this section. The sewing industry is far more developed than other areas along the railway. Machine-building is the third largest industrial sector, whose total output value making up one tenth of the total in this section. Chemicals and food processing are two important pillar industrial sectors, whose output value accounts for about one-tenth of the total in this section.

The total output value of the above five major industries accounts for 80% of the total.

Another feature of industry is highly outward looking and highly dependent on international market. There are many foreign-funded enterprises in the area, scattered in all trades and services. The number of foreign-funded enterprises has reached XXXX.

In terms of industrial development, the area has unique conditions. First, it neighbors on Hong Kong and Macao, with easy communications, fully enjoying the preferential policies granted by the central government in attracting foreign capital; second, its industrial foundation is solid, capable of providing funds and technology for future development; third, as an organic part of the Pearl River Delta Economic Sphere, it can cooperate with other cities for common development; fourth, infrastructure facilities have developed at a high level, able to provide the basic guarantee for industrial development. The infrastructure facilities in this area are incomparable by other areas along the railway. Communications are developing toward the outside world while express communications are developing towards networks. The level of telecommunications is also very high and information circulates fast; fifth, it has accumulated a wealth of experience in utilizing foreign capital and developing export-oriented industries. The area is one of the earliest to open to the outside world. Through a dozen years of development, its policies for industrial development and utilization of foreign capital have developed into plans that guarantee the further development. The rest of the areas along the Beijing-Kowloon railway do not have these five major advantages mentioned above.

In future development, the area should persist in the principle of "high starting point, high efficiency, and export orientation" and follow the path of making great efforts to develop export-oriented industries by using high and new technology industries as the flagship. In industrial structure, it should persist in mainly developing light industries to give full scope to the advantages and strong points of the area. In geographical location, apart from Shenzhen, Dongguan, Huizhou and Heyuan, great efforts should be made to develop industries in areas along the Beijing-Kowloon railway and along the coasts so as to effectuate an all-round development. Along the coasts, it is necessary to make full use of ports and locational advantages to develop petrochemicals, energy and automobiles that requires huge amounts of funds and technology. Along the railway, the areas should devote great efforts to the development of electronics, textiles and food processing to form an industrial axle line with light and new technology as the main undertakings, where there are ports, railways and express highways. There should be some industrial sub-zones of certain scale, such as Daya Bay, Yantian and Shekou.

The emphasis of future development should be put on: a. electronics industry, with investment products and mechano-electronic products as the main products, with technical level aiming at the internationally advanced; b. industries associated with information industry, such as microelectronics and telecommunications equipment; c. petrochemical industry, chiefly along the coasts, with the production of follow-up products; d. auto and auto parts industry; e. textiles industry oriented toward the international market. Besides, there must be pharmaceuticals and food processing which should also be given due attention.

In distribution, the role of Shenzhen, Huizhou and Dongguan as industrial centers should be intensified while great efforts should be made to develop such county-level cities as Heyuan and Huiyang. The Daya Bay development zone and the industrial districts of Shenzhen should also be strengthened.

#### (3) Fuyang-Shangqiu-Heze area

Only this part of the areas along the Beijing-Kowloon railway has coal and petroleum and natural gas resources. The Yongxia coalfield is one of the six major quality anthracite production bases in China. Xieqiao and Juye coalfield are all large quality gas and fat coal mines. Dongming and Heze have verified petroleum reserves of 40 million tons and natural gas reserves up to 27.1 billion cubic meters. Jieshou, Yucheng and Xiayi all have good oil and gas prospects. So petrochemical and coal, power and coal chemical industries can be developed. This section is also part of the Yellow-Huaihe-Haihe plain comprehensive agricultural development zone, where commodity farming is quite developed, especially noted for its wheat, cotton, yellow ox, goat skin, lean hogs, small-tail Han goat and peppermint, grape, paulownia and medicinal materials. They are favorable for the development of light industry and textiles, chemicals and medicine. It is also the origin of the Yellow River Culture, with rich tourism resources. Shangqiu and Bozhou are ancient cities and Mengcheng is the hometown of ancient philosopher Zhuang Zi. In addition, there is the peony in Heze. All these will be good tourism destinations.

Fuyang and Shangqiu are the central cities in this section of the Beijing-Kowloon railway, with advantages of land, air and waterway transportation facilities. Heze is at the confluence of the Shijiazhuang-Xinxiang and Beijing-Kowloon railways. There have also formed a dozen specialized markets of regional significance, including Bozhou medicinal materials markets, Taihe Nylon rope processing and marketing market.

But the area is short of water sources and ecological environment is vulnerable. There are also no mineral resources. City functions are monotonous and weak. Yet, the population is large and the educational level of labor is low. It is far from developed regions. These have restricted the development of the area.

In industry, a light industrial system has already taken shape, featuring mainly farm and sideline products processing and light and textile industries. The output value of textiles, food processing and feed industries accounts for nearly half of the total industrial output value in the area. Following it are building materials, chemicals and leather industries. The foundation of machine-building and electronics industry is weak. But some products, such as the Gong Jiu series and Minquan grape wines in Bozhou, cotton and woolen textiles and knitwear of Fuyang and Shangqiu, refrigerating machinery in Shangqiu and precision copper strips of Heze are quite popular in the country, occupying a considerable part of the market.

In the future, it is necessary to make fuller use of the resources, communications and agricultural advantages to shift the emphasis of agriculture from cotton and grain to cotton,

grain, livestock (cattle and pig). Industry should continue to give emphasis to textiles, beverages, machinery, leather making, pharmaceuticals, chemicals (farm chemicals and refined chemicals) while developing properly coal, power and coal chemicals. Active efforts should be made to develop new industries and enzyme preparations and electronics industries. Water-consuming and heavily polluting industries should be strictly limited. The association and regional ties among industries should be intensified. Circulation industry, tourism and services should be given a big push to promote the development of the whole tertiary industry so that the major cities along the line, such as Fuyang, Shangqiu and Heze will diversify their functions, intensify their ties, division of labor and cooperation with industrial centers and, in 15-20 years, the area will be made an light industrial belt with developed agriculture and animal husbandry, farm and sideline products processing, tourism and flourishing circulation industry.

## THE STUDY ON INDUSTIAL DEVELOPMENT OF JINGJIU ECONOMIC ZONE

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#### I. The Development Conditions for Industries of Jingjiu Economic Belt

The area along the Beijing-Kowloon railway will develop quickly in coming future. Besides completing of transportation condition, there are following favorable conditions for the industrial development:

- Plentiful land resources.
- A large number of labors with low wages.
- Abundant agricultural products, nonmetal resources and rare metal resources.
- Abundant tourism resources.
- Closing to coastal region.

On the other hand, the unfavorable conditions for the industrial development include:

- Deficient in key energy and ferrous resources.
- Serious shortage of water resources in the north part of the area.
- Lack large cities or economical centers.
- Most areas along the railway locate in the periphery of corresponding provinces.
- Limited economical foundation.
- Lack qualified technical and administrative personnel

#### 1. Transportation and location

The transportation conditions for the economic development of the areas along the Beijing-Kowloon Railway (Jingjiu Railway) can be summarized as "connecting the south and north of China smoothly, attracting coastal area and linking interior region conveniently, accessing in all directions."

The Beijing-Kowloon Railway Line connects with Hong Kong and Pearl River Delta Area in the south and Beijing-Tianjin Area in the north, and neighbors to coastal region. There is no doubt that the areas along the railway has a great opportunity for economic development.

The north-south railway line joins 9 east-west railway lines at present and 13 east-west railway lines in near future, and cross the "Gold Water Way"----Yangtze River at Jiujiang city. A number of railway hubs formed in this way will all become economic urban centers. In the areas along the railway line, the highway network, which connects the urban and rural areas,

is getting better and better in quality and accessibility.

#### 2. Natural resources

First there have rich agricultural resources in the areas along the railway. It belongs to semimoist climate of southern temperate zone and moist climate of southern subtropical zone. the areas have always been important parts of China's production bases of grain, cotton, fruit, tea, pigs, cattle and so on.

It is abundant in some natural resources in the areas along the railway. There are some number of energy resources and nonmetal minerals in the areas located in the north of Yangtze River. The coal resources deposit in Fuyang, Shangqiu and Heze Prefectures; and oil resources deposit in Langfang, Cangzhou, Liaocheng and Puyang Prefectures. It is abundant in nonmetal resources such as quartzite and marble in Dabie Mountain Area.

The areas of the south of Yangtze River is abundant in rare earth metal resources. Especially in Ganzhou Prefecture, it is very rich in wolfram resource. In addition, there are some building resources in these areas.

The tourism resources in the areas are very attractive. These resources contain resort spots, historical and cultural cities such as Liaocheng, Shangqiu, Pozhou and Ganzhou, and so on.

#### 3. Abundant labor resources with low wages

Comparing with coastal areas, the areas along the Beijing-Kowloon Railway Line is rich in labor resources, and the wage level is also relative lower than coastal areas. The per capita wage in Jiangxi province where the railway go through, for example, is only 1/3 of the wage of Pearl River Delta area. It is an important advantageous factor for developing labor-intensive industries such as textile, clothes manufacturing, and so on. But, there are some disadvantageous factors of the labor for developing economy. That is shortage in technicians and high level entrepreneurs and the skill of the labor are desired to be trained.

Another advantageous factor for industrial development is lower cost of land, comparing with coastal region.

#### 4. Accepting diffusion of industries of coastal region

It is inevitable for coastal region to update its industrial structure, which will lead to some industries being relocated from coastal region to interior. The areas along the railway, neighboring the coastal region, have great opportunities to attract the diffusion of the industries such as electrical power, raw and processed materials industries, light industries, labor-intensive industries, and so on, and most local governments have made a lot of preferential policies to encourage these industries.

#### II. The Principle of Industrial Development

According to the conditions of the areas along the Beijing-Kowloon Railway Line, its industrial development and allocation should rely on following principles.

#### 1. Relying on formed economical bases

Although the economical level is backward, the areas have accumulated certain economical power. Some industries have strength competitive power in national and international markets and better developing potentials. At present, the sectors of industries which take advantages and have developing potentials include agriculture, electronics, textile, food processing, some engineering industrial sectors, chemical industry, and so on. The output values of electronics and engineering account for 12% and 10% of the total industrial output value of the Economic Belt Along the Beijing-Kowloon Railway Line (Jingjiu Economic Belt) respectively. In future, these sectors will also play the leading role for the development of the economic belt.

In order to speed up the industrial development of the belt and get good benefits, local governments and enterprises should develop the sector mentioned above to expand their scales and promote their competitive capacities.

#### 2. Keeping with the state industrial development policies

The development of the industry of Jingjiu Economic Belt should keep with the state industrial development policies so that some supports could be gotten easily from central government. Central government has made plans in its "Ninth-Five Year Plan" to encourage local government to develop energy industry, hi-tech industry, and so on. But, the expansion of some industrial sectors such as textile and wine-making industry will be limited except for improve production technologies and qualities. Meantime, the central government announced in the "Ninth-Five Year Plan and Social and Economic Development Plan for 2010" to "build up and develop economic belts or zones along the coastal areas, the Yangtze River, the Asian-European Land-bridge and the Beijing-Kowloon Railway Line". These policies are important principles for Jingjiu Economic Belt to develop its industry.

#### 3. Keeping with cooperation principles

In order to speed up the development of the industry, Jingjiu Economic Belts should strengthen cooperation with other areas, especially with coastal areas. The cooperation should focus on production and consumption of energy, labor-oriented industry, technological supports, and so on. Meantime, Jingjiu Economic Belts should make efforts to attract funds from coastal areas and outsides.

#### 4. Cooperation between relative industries

In order to speed up the development of Jingjiu Economic Belt, some relations must be pay more attention. First, the relation between agriculture and the processing of its products. Second, the chain of industries should be organized so that the benefits will be increased. Third, some accessory sectors for pillar industry should be developed.

#### 5. Improving of industrial technologies

Comparing with coastal areas, Jingjiu Economic Belt is backward in technologies for the industrial developme t. This is the most limited factor for the development of its hi-tech industries. Improving production technologies should be important for strengthening the competitive capacity of products in national and international market.

#### III. The Development of Key Industrial Sectors

At present, the industrial output value of Jingjiu Economic Belt accounts for 5 percent of the national total value. According to the situation of the belt, the areas concerned should concentrated their efforts on the development of agriculture, engineering and electronic industries, textile and the in-depth processing, power industry, food industry and chemical industry. It is possible that the output value of the belt account for 7-8% of the national total to 2010.

#### 1. Agriculture

According to the situation of agricultural production and technologies, the development of agriculture of Jingjiu Economic Belt should strengthen the construction of "three-high" agriculture zone, that is, on the basis of guaranteeing steady increase in the output of grain, Jingjiu Economic Belt should produce high quality products bearing high efficiency by way of new and high technology, scale production and in-depth processing, so as to satisfy demands raising from their own areas and from the residential quarters of coastal cities or to be exported to foreign countries as a way to earn hard currencies.

It is necessary to adopt the most effective institutional form of "companies plus rural households" to link up tens of thousands of rural households engaged in scattered operations and forms multi-layer value-added series in the development resources.

Therefore, Jingjiu Economic Belt should concentrated efforts on the development of large comprehensive "three-high" commodity agricultural production bases in addition to the construction of numerous small specialized and comprehensive agricultural production bases such as the "rice bag project" and "vegetable bag project".

These large comprehensive "three-high" commodity agricultural production bases include the grain and cattle compound production base in the dry cropping agricultural zone on Huanghe-Huaihe-Haihe Plain; the breeding base at the waters of Poyang Lake; the oranges, tangerines and pomelos production base in the red-soil hilly areas of Ji'an-Ganzhou region; the "three-high" experiment agricultural base with concentration on production of subtropical fruits at Heyuan-Huizhou-Shenzhen Region; commodity fruits and vegetables production zones along the Beijing-Kowloon railway line.

#### 2. Engineering and electronic industries

It is possible for Jingjiu Economic Belt to construct engineering and electronic industrial bases with household appliances, equipment of telecommunications, automobiles and the accessories.

Some are s of Jingjiu Economic Belt have formed a fair foundation of engineering and electronic industries. Shenzhen and Huizhou of Guangdong province have now been listed as one of the six major electronic cities of China; Ji'an is the biggest electronic production base of Jiangxi province, its output value of electronic industry accounts for 1/3 of the provincial total; Shangqiu of Henan province is an important national center of refrigerating equipment; Nanchang, the capital of Jiangxi province, Liaocheng of Shandong province and Huizhou of Guangdong province have established quite fair foundations of auto industries.

It is necessary to make a full use of the enterprises located in these areas, increase investment for technological progress, be market aware and build mechanical and electronic industrial production bases in advantageous central cities along the railway line through development of new products. Especially, it is necessary to pay particular attention to the following aspects in the future development of engineering and electronic industries.

- (1). Developing mechano-electronic products. Following cities have potentials to develop the products: Shenzhen, Huizhou, Ji'an, Nanchang, Jiujiang, Shangqiu and Liaocheng.
- (2). While solidifying production of consumption electronic products in Shenzhen and Huizhou cities of China, it is necessary to lay emphasis on investing on electronic-like products, and developing products ranging from micro-electronics, computers, laser, photo-conductive fiber photo-electron, satellite telecommunications, microwave telecommunications to intelligence terminals, and to pay attention to the development of information technology.

Ji'an city should make great efforts to develop electronic-audio instruments, optical fiber telecommunications and cables besides developing Ganxin TV sets.

Shangqiu city should make vigorous efforts to develop refrigeration equipment, with Bingxiong Conglomerate as a core.

(3). It is necessary to create conditions for building production centers of automobiles and the accessories in Nanchang, Liaocheng and Huizhou.

Central government has made decision to develop auto-industry as first sector of industry in its "Ninth-Five Year Plan". Some cities such as Nanchang, Liaocheng and Huizhou have fair foundations for producing automobiles and the accessories. The auto industrial enterprises of these cities should cooperate with other large automobile enterprises first auto industrial group and second auto industrial group so that it can strengthen the competitive capacities of the enterprises

(4). It is also necessary to be countryside-oriented and establish production base of

agricultural-use machine series in places like Heze city of Shandong province and Fuyang city of Anhui province.

#### 3. Textile and in-depth processing industries

Textile industry is now a pillar industry of many areas of Jingjiu Economic Belt, where reported to have bright prospects for development. The belt has formed a capacity of more than two million spindles in textile industry, accounting for five percent of the national total capacity. Liaocheng, Heze and Jiujiang are cotton textile industrial centers; Shangqiu, Fuyang and so on are wool industrial centers; Ganzhou, Ji'an and Huanggang prefectures and Nanchang city are silk industrial centers.

For future development, these areas should be active to accept spreading and transfer of textile industry of coastal areas. It is necessary for them to develop industries dominated with high grades, much diversification, complete sets of products and in-depth processing.

- (1). Updating and forming a complete sets of cotton mills in Liaocheng, Heze and Jiujiang cities. Great effort should also be made to develop high-grades cotton textiles, cotton textile with special features, in-depth processing of cotton spinning, so as to form spinning industrial centers of the economic belt and make in the orientations of high quality, high efficiency and series on the basis of stabilizing overall production scale.
- (2). Efforts should be made to set up conglomerates and promote wool spinning industry, with cities including Shangqiu, Fuyang and Heze as the bases. These cities have conditions to develop series wool industrial products.
- (3). It is necessary to make use of natural conditions and preferential treatment given by government policies to develop silk spinning industrial business along Ji'an-Ganzhou-Heyuan Region, trying hard to build this region into one of Chinese new silk spinning industrial base.

#### 4. Power industry

Power industry will be a pillar industry for Jingjiu Economic Belt, and the development of power industry is of great significance for regional economic development of the economic belt, as it is geographically-advantageous and have favorable transport conditions.

First, as a basic sector, development of power industry will be conductive to the formation and development of the industrial zones along the Beijing-Kowloon Railway Line and conductive to a continuous improvement of investment environment.

Secondly, the development of power industry can help turn the industrial zones into secondary supplying bases of energy for coastal areas and ensure a quick development of industrial businesses in these coastal areas.

Thirdly, the development of power industry will promote development of industrial centers and industrial concentration zones along the railway line.

Therefore, in developing power industry, efforts can be made to make a use of transport

advantages, select rational places to build power stations in proper time compatible with demands of regional economic development and in a planned way, so as to establish a power industrial zone with a long-term combined generating capacity of 20 million kW. In next five years, It is necessary to build following power stations: the third phrase of Jiujiang power station, Fengcheng power station of Jiangxi provinces, Heze power station, Hengshui power station of Hebei province, Fuyang power station of Anhui province, Yongcheng power station of Henan province. The total generating capacity should amount to 10 million kW in year 2000 or so. For long-term period, some new power station should also be built such as Ji'an power station, Ganzhou power station, Liaocheng power station, and so on.

#### 5. Food industry

As a important sector of Jingjiu Economic Belt, it is necessary to develop food industry with special features. Breakthrough can be achieved in the following aspects in the future development. First, for distilleries which have produced branded liquors, emphasis should placed on development of products like low-alcohol drinks, health wine and medicinal liquor. Secondly, developing green food series dominated with production of dehydrated vegetables, fresh-keeping vegetables and pollution-free vegetables. Thirdly, breeding of domestic fowls, mainly pressed salted ducks and black bone fowls and in-depth processing products series. Fourthly, developing instant food series. In the development of food industry, efforts should be concentrated on creating famous brands, exploring market and forming special features.

#### 6. Chemical industry.

The main sectors of the chemical industry of Jingjiu Economic Belt are medico-chemical industry, petrochemical industry and chemical materials. These sectors are distributed in Shenzhen, Nanchang, Shangqiu, Ji'an, Liaocheng, Hengshui, and so on. Following chemical industrial sectors should be developed specially. First, medico-chemical industry. Secondly, petrochemical industry. Thirdly, coal-chemical industry. Fourthly, special chemical industries for agriculture such as fertilizer and farm chemicals.

#### 7. Tourism industry

Many areas along the Beijing-Kowloon Railway Line abound in tourism resources and have great potentials of development, and tourism resources here are of distinctive features.

Along this railway, there are many scenic spots of natural landscapes like Lushan Mountain, Jinggang Mountain and Luofu Mountain, and a group of historical and cultural cities as well as a great number of historical ruins and cultural relics, it is of great value to develop tourism industry.

It is expected that a comprehensive tourism zone offering sightseeing tours, cultural tourism programs and holiday tours and pleasure-seeking tourism programs will be formed on the completion of infrastructure, promoting the development of service trade with tourism industry

as a core. In future, it is possible for Shangqiu city and Jianjiang city to be the important tourism center of China.

#### IV. Development and Allocation of Industrial Urban Center

#### 1. Development conditions of cities of Jingjiu Economic Belt

Cities or urban areas are the bases of industrial development. Besides Beijing, Tianjin, Shenzhen and Hong Kong at the both ends, there are 23 cities with different scales along the Beijing-Kowloon Railway Line, some of which take important effect for regional development and have great development potentials. These cities will also take very important effects for development of Jingjiu Economic Belt in future. Several development conditions of key cities are listed in table 1.

It is significant to develop industrial centers for speeding up the development of Jingjiu Economic Belt. First, By this development mode, natural and social resources can be utilized rationally, so as to raise the production efficiency. Secondly, it is necessary to promote the competitive capacities of the enterprises of Jingjiu Economic Belt. Thirdly, it can promote the adjustment of industrial structures and the development of new enterprises.

#### 2. Development target of industrial centers

The general economic strength of the cities of Jingjiu Economic Belt is very weak, and their average urban industrial output value is only equal to 22 percent of that for cities along the Beijing-Shanghai Railway Line and 37 percent of that for the cities along the Beijing-Guangzhou Railway Line, and the capacity for leading neighboring areas in regional development is not strong.

In order to speed up development of Jingjiu Economic Belt, it is necessary and possible, in coming  $10 \sim 20$  years, to establish 3 or 4 important national industrial centers, 10 to 15 regional industrial centers. According to the location, transport condition and economic foundation and potential, following cities can be developed as national industrial centers: Shenzhen, Nanchang, Jiujiang, Fuyang, some cities such as Ganzhou and Shangqiu should also be developed mainly as regional economic center. South Jiangxi province, for instance, is 65,700 square kilometers, and relative abundant in natural resources such as wolfram, forestry and so on. But, the economic strength of two largest cities in this area, Ganzhou and Ji'an, is small. Therefore, there is potential to form stronger industrial center. Other cities, like Huizhou, Heze, Liaocheng, Hengshui, Ji'an, Macheng and so on should also be developed as important local industrial centers.

The development conditions of key cities along Beijing-Kowloon railway line

1 he c	development conditions of key c		on railway line
city	Scale and regional features	Transport conditions	Industries(1994, yuan)
Bazhou	Small city Belong to Beijing-Tianjin urban System	Jingjiu railway Bazhou-Tianjin railway Planned Baoding- Bazhou railway National road No. 106. To Tianjin port 120km.	GDP 2.55 billion Textile industry Chemical industry Light industry
Hengshui	Middle city Center of Prefecture	Jingjiu Railway Shijiazhuang-Dezhou Railway To Tianjin port 340 Km	GDP 1.91 billion Chemical industry Food industry Engineering industry
Liaocheng	Middle city Center of Prefecture National historical and cultural city	Jingjiu Railway Jinan-Handan Railway National Road No. 309 To Qingdao port 490km	GDP 2.18 billion Cotton textile Industry Medical Industry Automobile Industry
Heze	Middle city Center of Prefecture	Jingjiu Railway Xinxiang-Rizhao Railway To Rizhao seaport 455km	GDP 3.18 billion Textile Industry Power Industry Chemical Industry
Shangqiu	Middle city Business center of east Henan Province National historical and cultural city	Jingjiu railway Longhai railway National road No. 105 and No. 310. To Lianyungang port 370km	GDP 1.38 billion Food Industry Wool textile industry Refrigerating Industry
Fuyang	Middle city Business center of Northwest Anhui	Jingjiu railway Luohe-Fuyang railway Fuyang-Huaibei Railway national road No. 105 To Lianyungang port 450km	GDP 3.67 billion Food Industry Textile Industry Chemical Industry Engineering Industry
Jiujiang	Second largest city of Jiangxi province Open city and "open window of the province	Jingjiu railway Wuhan-Jiujiang railway Yangtze River Jiujiang port National road No. 105 To Shanghai port 856km	GDP 4.35 billion Petrochemical Industry Engineering Industry Textile Industry
Nanchang	Large city Capital of Jiangxi Province	Jingjiu railway National Road No. 105 Ganjiang River To Shanghai Seaport 837km	GDP 12.51 billion Medicine industry Automobile industry Textiles industry
Ganzhou	Middle city National Historical and Cultural City Center of South Jiangxi	Jingjiu Railway National Road No. 105 To Shantou and Shenzhen Ports 510km	GDP 1.78 billion Nonmetallurgical industry Forestry industry
Huizhou	Middle city	Jingjiu Railway	GDP 5.01 billion

	Important city of Pearl River Delta	National Road No.105 To Shenzhen Port 100km	Electronic Industry Textile Industry Chemical Industry Engineering Industry
Shenzhen	Large city Special Economic Zone	Port Jingjiu railway Expressways	GDP 56.71 billion Electronic Industry Textile Industry Chemical Industry Engineering Industry

#### 3. Development of key industrial cities

- (1) Shenzhen City. It is the largest industrial city along the Beijing-Kowloon Railway Line except Beijing and Hong Kong, the total industrial output of 1994 is 9.52 billion yuan. The major sectors of its industries include electronic industry, medico-chemical industry, textile industry and food industry. Shenzhen city will also be the largest industrial city of Jingjiu Economic Belt in future, the development directions of its industry should concentrate on capital-intensive and technology-intensive industries with high output value and less pollution. The major sectors of the industry developed mainly in future include electronic industry, machinery, textile industry, chemical industry, medicine, food processing, building materials, printing, and so on. It is also very necessary to make opportunities to develop computer and software, telecommunication equipment, micro-electronic elements, new materials, biological products and mechano-electronic products.
- (2). Nanchang City. It is the capital and the largest industrial city of Jiangxi province, and it also be second largest industrial city of Jingjiu Economic Belt, its industrial output value of 1994 amounted 20.90 billion yuan. It has established fair foundations of automobile industry, chemical industry, food processing, textile industry and metallurgical industry.

According to its industrial foundation, Nanchang city should concentrate on the development of automobile industry, medico-chemical industry, electronic industry, textile industry and metallurgical industry in future.

(3). Jiujiang City. In the light of population and industrial output value, Jiujiang city is third largest city and fourth largest city of Jingjiu Economic Belt, and on the juncture of the Industrial Zone Along the Yangtze River and Jingjiu Economic Belt. Its industrial output value amounted 7.60 billion yuan in 1994. At present, the major sectors of the industry include petrochemical industry, textile industry, engineering industry, building materials industry, food processing and so on.

Jiujiang City has great development potential because of its good location and the industrial foundation. In future, the major sectors of its industry should concentrate on the development of petrochemical industry with in-depth processing products, engineering industry with shipping

building industry as a core, textile industry for international market, power industry and food industry.

(4). Fuyang City. It is located in the north plain of Huaihe River, Anhui province, and abounds in resources of farm produce and livestock products in its hinterland. The development of its industry should concentrate on light industry such as textile and food processing, engineering industry and chemical industry.

Other important cities like Ganzhou should concentrate on developing nonferrous metallurgy, forestry industry, food processing, chemical industry and so on. Ji'an should pay much more attention to develop electronic industry. The major sector of Huizhou's industry should include electronic industry, textile industry and automobile industry. Shangqiu should make more efforts to develop refrigerating equipment. It is necessary for Liaocheng city to develop cotton textile with in-depth products, medicine and automobiles. Hengshui City should develop textile industry, chemical industry and food processing.

#### V. The Industrial Development of Key Areas Jingjiu Economic Belt

#### 1. Nanchang-Jiujiang area

Nanchang-Jiujiang area includes Nanchang city and Jiujiang prefecture, its north-south distance is 160km. The zone along the Jingjiu Railway is the development core of Nanchang-Jiujiang area with a series preferential policies. Since 1992, the government of Jiangxi Province has made efforts to develop the "Nanchang-Jiujiang Industrial Corridor" with the planned core area 466 square kilometers and the concerned area of 9200 square kilometers. The attractive area can be expanded to 20,000 square kilometers.

Nanchang -Jiujiang area has several favorable conditions for its industrial development. First, there are abundant resources in this area, including copper ore, zinc ore and gold ore. Agricultural resources are also diversified and abundant. In addition, the conditions here for developing aquatic products industry is very good because the Poyang Lake, the largest fresh water of China, locates in this area. Secondly, the area has established a fair foundation of industry characterized by medico-industry, engineering industry, textile industry, petrochemical industry and automobile industry. The industrial output value of the area accounted for one-third of that of provincial total. Thirdly, this area has good location and infrastructure service system. There are Beijing-Kowloon Railway Line, Hangzhou-Zhuzhou Railway Line and Yangtze River to link coastal region and other areas, Nanchang-Jiujiang expressway went to operation two years ago. Energy supplement can ensure the needs of industrial development because the total generating capacity of power in this area has already amounted to 1 million kW. Fourthly, the governments have made a series of preferential policies to attract domestic

and outside funds to develop the industry.

In future, Nanchang-Jiujiang area should make efforts to concentrate on the development of engineering, electronic, textile, chemical and medical industries with Nanchang City and Jiujiang City as cores.

Engineering industry should be developed mainly in Nanchang City and Jiujiang City, the major sectors should concentrate on automobiles, shipping building and so on. Textile Industry should develop high grades products in the light of domestic and international needs. Chemical industry is a pillar industry for Nanchang-Jiujiang area, it is necessary to pay more attention to develop petrochemical industry with in-depth products and medico-chemical industry.

In the light of rational planning, a series of industrial zones should be developed, so as to speed up the development of industrialization of this area. The local governments have made efforts to do so since a few years ago. It is possible to develop 10 or so with  $1 \sim 3$  billion yuan of industrial output value for each in 20 years.

#### 2. Heyuan-Shenzhen area

Heyuan-Shenzhen area contains four cities and the vicinities: Heyuan, Huizhou, Dongguan and Shenzhen city.

This area has strong industrial foundation characterized by some specialized sectors. First, the electronic has formed a fair foundation with strong competitive capacity. Shenzhen and Huizhou are important electronic industrial bases. Secondly, its textile has also formed strong foundation. Engineering, chemical industries and food processing are also important sectors of this area. The total output value of five sectors mentioned above accounted for eighty percent of the industrial total output value. Moreover, there are a lot of enterprises invested by foreign funds because of its location and preferential policies.

There are a lot advantageous conditions for the industrial development. First, as a important part of Pearl River Delta, this area belongs to coastal region and connects directly Hong Kong, so as to be able to attract outside funds more easily than other areas. Secondly, this area has formed a fair foundation of industry which can supply capital for further development of the industrial system. Thirdly, the conditions of regional cooperation is better than other areas. Fourthly, the area has formed better infrastructure service system characterized by multi-mode transport network and modernized telecommunication system. In this area, there are Shenzhen Seaport, Huizhou Seaport, Beijing-Kowloon Railway Line, Shenzhen-Guangzhou expressway and Shenzhen-Shantou expressway. Fifthly, this area has accumulated a lot of experience for developing external-oriented industries.

According to the industrial foundation and development conditions, the principles for the industrial development of Heyuan-Shenzhen area should insist on "high starting points, high efficiency, external-oriented". It is necessary to concentrate on the development of light industry

with high technology and earning foreign hard currencies. Governments should pay more attention to develop two zones: the coastal zone and the zone along Beijing-Kowloon Railway Line. The coastal zone should concentrate on the development of petrochemical industry, power industry, automobile industry and so on. The zone along the Beijing-Kowloon Railway Line should concentrated on the development of electronic industry, textile industry and food industry.

In short, following sectors should be developed as pillar industries: ① Electronic industry with mechano-electronic products. ② the industries relating to information fields. ③ Petrochemical industry. ④ Automobile and the accessories. ⑤ Textile industry.

#### 3. Fuyang-Shangqiu-Heze area

Fuyang-Shangqiu-Heze area includes Fuyang prefecture of Anhui province, Shangqiu prefecture of Henan province and Heze prefecture of Shandong province.

This area is rich in energy resources. Yongcheng-Xiayi coal field of Henan province is one of the six major hard coal fields of China; Xieqiao coal field of Anhui province and Juyie coal field of Shandong province are important large scale steam and rich coal fields of China. In addition, there is abundant oil and natural gas in Heze prefecture.

This area is also rich in Agricultural resources.

Tourism resources are very abundant in this area. There are two national historical and cultural cities in this area: Shangqiu city and Pozhou city. In addition, there also is a series of ruins and resort spots in this area.

At present, the major sectors of the industry are textile, food processing and feed-processing.

In future, It is necessary for this area to develop textile industry, drinking industry, engineering industry, leather industry, medico-industry and chemical industry. Meantime, it is also important to develop tourism industry.

The International Seminar on the Sustainable Development of the Jingjiu Region (2-4 Sept. 1997, Beijing)

#### PROJECT SCREENING GUIDELINES

Mr. Wang Caogang

#### (Ministry of Construction. China) PROMO ION

- Project profiles who is audience
- What are criteria
- This determines CONTENT, SEQUENCE, DEPTH of profile

#### **SCREENING**

- For whom is screening performed?
- Criteria: By what measures is acceptability of project determined?

#### **SCREENING STAGES**

#### Adjust instrument to screening stage or to screening objective, e.g.

Instrument	Purpose
Preliminary identification from national resources, economic status, potential exports, replications of successful projects in other countries, etc.	Identify basket of possible projects to elicit interest of potential investors
Qualitative profile	Preliminary screening to focus promotional resources
Promotional profile	Attract investors (e.g., trade fair)
Central planning profile	<ul> <li>Select projects with greatest positive impact on economy</li> <li>Select projects with greatest distributional impact</li> </ul>

#### KEY ASPECTS OF SCREENING PROCESS

- ALWAYS STUDY BEFORE INVESTING
- SET UP SCREENING TO MEASURE LONG-TERM POTENTIAL
- CONCENTRATE ON BEST PROSPECTS
- QUICK NEGATIVE DECISION BETTER THAN DELAY
- ASSURE COMMITMENT OF POTENTIAL SPONSOR TO IMPLEMENTATION
- COSTS INCREASE RAPIDLY BY STAGE OF ANALYSIS
- ANALYZE ALTERNATIVES EARLY IN PROCESS
- COLLECT ALL RELEVANT INFORMATION AVAILABLE AND <u>BUY ONLY</u> <u>NECESSARY INFORMATION</u> (TO GET TO THE NEXT DECISION)
- THE PROCESS IS ITERATIVE WITH FEEDBACK LOOPS
- AT EACH STAGE THE SAME ANALYSIS IS PERFORMED IN INCREASING

#### DETAIL.

• INFORMATION FROM PREVIOUS STAGES IS ALWAYS USED (SO THAT THE PREVIOUS EXPENDITURE IS NOT LOST)

#### SCREENING: WHAT CONSTITUTES AN INVESTMENT OPPORTUNITY?

PRIVATE SECTOR	PUBLIC SECTOR (INFRASTRUCTURE, etc.)		
MICRO			
PROJECT CONCEPT: Does the basic idea behind the project, i.e., the characteristics of the output and			
the distributional strategy meet the test of logic?	_		
Business concept	Project concept		
Product or service - identifying	Good or service		
characteristics	Distribution strategy		
Marketing strategy			
MARKET / CONSUMERS: The four P's - Produc	t, People, Price, Place (Distribution system)		
Market	Demand for good or service - justify need of		
People, enterprises, government, etc.	consumers		
Ability to pay	People, enterprises, government, etc.		
Willingness to buy	Ability to pay (if only partially subsidized)		
Psychology	Willingness to buy (if only partially		
Trend and product cycle	subsidized)		
External environment	Psychology		
	Trend and product cycle		
	External environment		
TECHNOLOGY: Is the system of production and the			
the task, sustainable for the anticipated project life			
Production technology	Production technology		
Minimum plant size	Minimum project size		
Material inputs	Material inputs		
Utilities	Utilities		
Labor	Labor		
Land (location, site)	Land (location, site)		
Environmental and social impacts	Environmental and social impacts		
MANAGEMENT: Is competent management comphases?	nmitted for both implementation and operational		
ACCEPTABILITY OF INVESTORS TO FINANCI	AL INSTITUTIONS: Is the quality and experience		
of the investors acceptable to financial institutions			
inordinate risk?	. 15 17 Treat Mar Me west out of Services William		
MOTIVATION AND COMMITMENT TO PROJ	ECT GOALS: Is the entrepreneurial capacity or		
planned motivational response (in the case of public	e sector projects) adequate to the task of seeing the		
project through?			
Investors			
History			
Qualifications	·		

Entrepreneurial capacity	Project management		
Motivation	Motivation		
Knowledge	Knowledge		
Energy	Energy		
Commitment	Commitment		
Debt service	Debt service		
MA	CRO		
MACRO-ECONOMIC ENVIRONMENT: Are expropitious?	conomic and demographic situations and trends		
General business climate	General economic climate		
Government policy			
Legal framework			
Political stability			
Fiscal and monetary policy			
Economic cycle	Economic cycle		
National	National		
International	International		
Trend	Trend		
Economic	Economic		
Demographic	Demographic		
SATISFACTION OF PERFORMANCE CRITERIA: Is this a good project for the sponsors? For the			
country?			
Financial rate of return, payback period,	Economic rate of return		
etc.	Balance of payments		
Value added, balance of payments, employment	Employment		

#### SYSTEM OF CLASSIFICATION OF SCREENED PROJECTS

- 1. COMPLETE FEASIBILITY STUDY
- 2. PRELIMINARY SURVEY FOR INVESTMENT PROMOTION (PRE-FEASIBILITY)
- 3. ADDITIONAL INFORMATION
- 4. ADEQUATE EXISTING OR PLANNED FACILITIES
- 5. DEFERRED
- 6. ADDITIONAL INFORMATION; POSSIBLE "1" (PRE-FEASIBILITY STUDY)
- 7. ADDITIONAL INFORMATION; POSSIBLE "2" (ADEQUATE EXISTING CAPACITY)
- 8. ADDITIONAL INFORMATION; POSSIBLE "3" (DEFERRED)

#### **ELEMENTS OF PROJECT ANALYSIS**

- ASPECTS OF PROJECT FEASIBILITY THE SEVEN FEASIBILITIES
- BREAKDOWN AND SYNTHESIS
- SAME PROCESS AT EACH STAGE
- DETAIL INCREASES FROM ONE STAGE TO THE NEXT

#### STARTING POINT OF ANALYSIS - SWOT

A discussion of project's internal (S+W) and external (O+T) factors, with the aim of determining the adequacy and viability of the project concept:: Which strengths to increase, and which weaknesses to limit, in order to profit from the available opportunities and to avoid/counter future threats.

- STRENGTHS
- WEAKNESSES
- OPPORTUNITIES
- THREATS

#### **INTERNAL FACTORS**

#### DESIRABLE STRENGTHS

- MARKETPLACE
- AVAILABLE LABOR
- PREMISES AND SITES
- COMMUNICATIONS
- SUPPLIERS

- EXISTING INDUSTRY
- FINANCING
- QUALITY OF LIFE
- AGENCY RESOURCES
- STABILITY

#### **WEAKNESSES**

- UNTESTED MARKETS
- INEXPERIENCE
- SHORTAGE OF SKILLS
- INAPPROPRIATE LOCATION
- LACK OF INFRASTRUCTURE
- UNSTABLE SOURCES OF SUPPLY
- UNFAVORABLE FINANCING
- ENVIRONMENTAL POLLUTION
- PROBLEMATIC DISTRIBUTION
- LOW RETURN ON INVESTMENT

#### **EXTERNAL FACTORS**

#### **OPPORTUNITIES**

- GROWTH ECONOMIES
- GROWTH SECTORS
- NEW MARKETS
- COST PUSH
- REGULATORY CHANGE

#### **THREATS**

- OTHER AGENCIES
- REGULATORY CHANGE
- POLITICAL CHANGE
- CHANGE IN IMAGE
- RECESSION

POLITICAL CHANGE

#### CHANGE IN RESOURCES

# FOREIGN INVESTORS' CONSIDERATIONS

- POLITICAL SITUATION
- ECONOMIC EVALUATION
- MONETARY SITUATION
- SOCIAL LEGISLATION AND ITS EVOLUTION
- LABOR CLIMATE
- POPULATION STRUCTURE
- FINANCING ASPECTS
- LABOR AVAILABILITY
- ATTITUDE TOWARD FOREIGN DIRECT INVESTMENT
- TRANSPORT INFRASTRUCTURE
- TELECOMMUNICATIONS
- COMMUNITY FACILITIES
- LIVING CONDITIONS
- INTERNATIONAL PROFILE

#### SEVEN FEASIBILITIES

- 1. Market/Commerce Will sufficient quantities be sold at an acceptable price?
- 2. Technical Can these quantities be produced?
- 3. Financial Are adequate financial resources available? Will the financial return be adequate?
- 4. Institutional/Managerial Will the enterprise be managed effectively? Are the internal resources up to the job?
- 5. Entrepreneur Is there an individual with the necessary energy, commitment?
- 6. Economic Will the project benefit the country?
- 7. Ecological Are the impacts on the external and internal environments unacceptable?

# PROJECT CONSTRAINTS

# **INVESTOR CHOICE:**

If aspects 1 - 5 above give negative results the project will be rejected by the investors

# **EXTERNAL CONSTRAINTS:**

Aspects 6 and 7 generally require either government approval or compliance with government regulations

# MANAGERIAL/ENTREPRENEURIAL ASPECTS OFTEN OVERLOOKED:

Can they build it? (implementation)
Can they operate it? (production)
Who will do it?

		Planning phase	Implementati on	Operations	Decommission ing
IDEAS	Internal				
	External				
ENERGY	Internal				
	External				
PERFORMA NCE	Internal				
	External				

# KEY CHARACTERISTICS OF ENTREPRENEURIAL CAPACITY

# **INDIVIDUAL PROFILE**

- INTUITION
- DYNAMICS/ENERGY
- INITIATIVE
- PREPARED TO TAKE RISK
- DECISIVENESS
- BRAVERY
- MOTIVATION
- FINANCIAL PRUDENCE
- ABILITY TO DEAL WITH STRAIN
- CREATIVITY
- SELF CONFIDENCE
- DEDICATION/COMMITMENT
- INTEGRITY/RESPONSIBILITY

# LEADERSHIP QUALITIES

- MOTIVATIONAL SKILLS
- ORGANIZATIONAL SKILLS

# KNOWLEDGE AND ABILITY

- UNDERSTANDING OF CONCEPTS RELEVENT TO VENTURE
- TRACK RECORD (SUCCESSES AND FAILURES)

# MOST VITAL ASPECTS (AND MOST NEGLECTED)

- CLEAR FORMULATION OF BASIC PROJECT CONCEPT
- MAKE OR BUY DECISIONS
- ANALYSIS OF ALTERNATIVES (e.g. Labor intensive vs. capital intensive)
- FULL INTEGRATION OF:

MARKET,

TECHNICAL,

FINANCIAL,

**ECONOMIC ASPECTS** 

- CHARACTERISTICS AND CAPACITIES OF ENTREPRENEUR / PROJECT DIRECTOR
- WORKING CAPITAL REQUIREMENTS

# THE STRATEGIC PLANNING PROCEDURE

STRATEGY: A long-range plan for survival and growth

- OBJECTIVES
- CONDITIONS (INTERNAL AND EXTERNAL)
- MEANS (RESOURCES)
- ORGANIZATION (WHO WILL DO IT?)
- CRITERIA
- SELECTION OF OPTIMAL STRATEGY
- IMPLEMENTATION

#### APPRAISAL: CONCLUSIONS AND RECOMMENDATIONS

Issues that are normally covered in an appraisal report:

# IS THIS A GOOD PROJECT FOR THE SPONSOR?

- 1. Are sales projections realistic?
- Does the marketing strategy stand the test of logical analysis?
- Does the quality of the planned product meet the standards required by the market?
- Has a market been identified which is accessible to this project?
- Are product prices sustainable in the face of projected market conditions and competitor responses?
- 2. Is technology available and sustainable?
- Has technical know-how been assured through technical support, licensing and/or joint venture

agreement?

- Is machinery and equipment reliably available according to the planned schedule?
- Is the planned production level at or above the minimum feasible capacity for this industry?
- Has technology and productivity been demonstrated under similar operating conditions?
- Are project inputs reasonably assured in terms of:

Quality

Quantity

Price

Stability

Source?

- Is there an assured channel for supply of spare parts and maintenance?
- Has the proposed technology been tested in terms of acceptability of product quality to the market?
- Has it been shown that the environmental and social impacts are acceptable to the authorities and/or the community?
- Are there more competitive technologies in the pipeline?
- 3. Is the project potentially bankable?
- Is the sponsor acceptable to financial institutions (finances, experience, history, etc.)?
- Has it been demonstrated that the debt can be serviced with high confidence?
- Has it been shown that the necessary government licensing and other trading requirements are either in hand or reasonably assured (legal and otherwise)?
- Is it a good use of the sponsors' resources vis-à-vis alternatives?
- Is the project compatible with other activities of the sponsor?
- 4. Is management available which is capable of the task?
- Management of implementation
- Management of operations
- 5. Does the sponsor have the entrepreneurial capacity necessary to energize the project and to retain its momentum in the face of obstacles to growth?

# DOES THE PROJECT MAKE SENSE FOR THE COUNTRY?

Are the social benefits vs. costs likely to encourage approval of government appraisers and decision-makers?

#### SUSTAINABLE DEVELOPMENT AND INVESTMENT

Huang Jing\*
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ustainable development (SD) embraces 3 implications: the first is the layer of ideal formation; the second is system of economy-society; the third is science and technology.

SD is a kind development strategy of society, or a developing way. It includes the concord development of resource, environment, economy and society, its kernel is harmony economic and social development around human. SD is a choice after many failures and defeats of human interacted with nature and outside. This way includes profound morality basis that can promote harmoniousness of human and nature, rationally allocate relationship between generations in resources usage. This way sublate "Western Human Central Theory" in acquaints and practice.

# 1. The bases of China carrying sustainable development strategy

Chinese development in modern times is the history basis to carry the way. Besides, there are 3 important implications:

# 1.1 It is determined by Chinese national situation

China is the biggest developing country with large population, lower productivity, unbalance regional development, ascending stage, abundant in resources but less by PC, facing strong international competition and dissipation in resources is gravely. These are Chinese national situation. Through these years Chinese total economic volume has been put forward to top line of world, so are national production, national income and foreigner trade volume. However the level by PC is very low. Although China develops hers economy very rapidly from 1978, the payment was very large. For Shandong, resumed much more water in the 90's than in the 80's. Jinan, Qingdao, Weifang, like as, have been heavy or secondary polluted cities. Capital profit rate dropped from 29.2% in 1980 to 10.06% in 1993. Like it the others traded economic interest with bio-environment damage in different degree. « Survival and Development » analyzed the relationship of Chinese population, resources, environment, food and development systematically. The radical results are that optimism shall be cautious with some conditions and China develops its economy by only the way "Enduring Fight"<sup>2</sup>. "Development is solid principle" (Dengxiaoping's word). We shall see not notice absolute development but important relative development. In the world tide, any country is in developing process, so development is a competition. Only when does China develop more quickly she can catch up developed countries. Look into the future, China has a long and hard way to go. To

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<sup>&</sup>lt;sup>1</sup>Maohanying, Introspection and Measurements to Shandong Province's Economic Continuous growth, Territory & Regional Economy, 1996. (2), P14.

<sup>&</sup>lt;sup>2</sup> National Situation Study Group of Science Academy of China, Widen Resources and Economize Usage--The Potential s of Natural Resources and Measurements of China, Science Press, 1992, P3.

overcome some main restrictions, China will rely on policy, capital and institutional reform, proper to carry the "Enduring Fight". SD is just the way.

# 1.2 It is the requirement of behind effect of action

The affection of economic law to concrete action is temporary, while affection is long effect. For universality of economic I was function, all kinds of economic actions are affected by price law directly or indirectly. Some times some of investors or producers depredate the nature or over develop some given areas or certain resources without considering effects of their action, the come out is resource overloaded and devastated. From industrialization revolution to now, myriad facts proved these action destructiveness. All the countries. British, America, japan and other developing nation, undergone economic striking and torments of devastated environment, such as economic crises, oil crises, land desertification, bio-accumulation of poisonous matter. When the accumulated destructive action menaces survival and development of nationality, many countries and regions, especially developed countries token the leader to harness and protect environment, probed the way of SD, formed the SD strategy many countries attach importance to. We can say that this is the choice of human having rectified his errors.

# 1.3 This is the requirement of survival and development

Relying on and fight against the nature, human fight over natural calamity also and remodel natural conformation. However, the existence of nature, with its own motional laws, is not ready for human's survival and development while man's has his social and economic bases. Human's actions are radical contradiction of their mutual interaction. To deal with the contradiction, Chinese has a proverb: gentleman makes wealth with certain doctrine. Then, what is "gentleman"? This is the focus of the issue. Gentleman is a group such as that who has the most important performance--overall noble normality. When making wealth and develop nature, he has harmoniousness of providence, environment and man in mind; To deal with other population, he considers himself interest and others' interest; himself development and conduct the relationship with others' development well; contemplates survival and development of this generation and the coming. The human is not only just for existence, but the important is development. Development is based on survival, no survival no development, no good survival no satisfactory development. Survival is the basis of development, development is possible prospects. Just only can the gentleman overall deal with the relationship of survival and development very well. Though there are many unfavorable behavior and phenomena in microscope in long survival and development. With Confucianism to establish and consummate socialism marketing economic system with Chinese features. I believe people will become this gentleman consciously, and China call people to do that in executing SD strategy.

# 2. Some problems in Sustainable Development

Now from the world, problems in SD mainly are population, resources, environment and development (PRED). The current situation is contradicted results of conflicting PRED in history. Human is consumer as well as producer, he must consumes resources, environmental capacity, meanwhile, he change the nature and increases productivity. When population increasing rate exceeds attainable productivity, then the nature can not recover pressure brought by population in relative period, reaction will make human-nature system to develop into malignant recycle, that inevitably lead resources destruction, environment deteriorate, social-economic system revolve into the cycle. Though resource and environment are not determining

factors in SD, they are much important factors. Resource, less in relative and absolute volume, limits SD inevitably. Low environment quality (for example: less water resource, barren land, serious and frequent natural calamity) certainly devour many human fruits that restricts SD. Development is kernel of SD, slow development is not favorable to SD. If development deviates the national situation far away, SD may be harmed potentially. If so, trade condition will be deteriorated, even to international relationship or unfavorable relationship change of world politic and economy. the deepening several contradictions above to a big country are the most critical threats, more ever can lead to its social-economic system right-down blowup.

As known, China has the most population, the quality is not high; relative resource is less; bio-environment of more areas is not favorable and natural conditions of some areas make great destroy to society and economy; unbalance development is outstanding in the world, it can be thought that serious unbalance will make effects to society and economy. From these, problems in SD of China are far more, for example: contradictions of city and urban, developed and undeveloped, resource deposition and investment, among industries, among minority areas. Especially, during the period of development and reform and open being push into deeper lawyer, more and more problems induced, more and more apparent and protruding contradictions, even some issues become more complex. Above is the problems and possible situation in SD.

# 3. The Relationship of Investment and Sustainable Development

SD rely on capital, technology and talent. In some degree talent embrace components of technology, fostering talent need money, actually more time; visible technology is the rime of talent and knowledge, combined with invisible components, it can make effect; capital is a form of human wealth, mainly used to invest in enlarging reproduction. Investment is just usage of capital, so thesis is a direct relationship between investment and SD.

- 3.1 How to affect SD. Investment, as a primary action in production, certainly makes effects to its related actions and procedures. In given space, SD in virtual is the relationship of population (P), resources (R), environment and development, namely the harmonious relationship of SD and PRED system in geographical spatial. Just for PRED's entirety, regionalism, dynamic, controllable, gradation and intention, it cause investment is inseparable with it tightly, each investment loop relates with development of PRED (figure below). For the primary action, its influence and effect make influence in each loop and procedure of PRED of Structure, strength, majority, spatial location of investment will make long and important effects to PRED system. So investment is very important actions of government, prefecture, trade, enterprise and person.
- 3.2 Investment structure: it adjusts the time and spatial situation of investment directly. From structure, we can find out inventing proportion of production and un-production, investing allocation of department, support to productivity of social production and to progress, how much of enlarging reproductive capacity, structure of project scale, time period of construction, allocation in region. Structure determines function, from these parameters above, though integrated analyzing under given social-economic conditions, we know current investment focus, main goal and social-economic development strategy. Inasmuch a developing country tends to adopt SD strategy, it must take related investment structure in investment.

Investment structure includes two sides macroscopic and microscope. The bigger effect to society-economy is macro- investment, mainly in region and trade. For SD, we must hold

regional and trade investment. How to judge whether investment accord with SD strategy? Mainly to judge it in country's long interest. No.1 is that whether investment accord with long team goal of national social-economic development; No.2 whether accord with development direction of region; No.3 whether accord with industry development policy; No.4 whether settle radical contradictions in PRED system; No.5 whether promote harmoniousness of regional economic development. of course, criteria of weighting whether investment accord with SD are far away of these, focally the most important is whether investment sever the radical goal of SD.

# 4. The positive and negative functions of investment

The histories of China and other countries attested that investment played very large driving effects to economic development. Yet, as any affairs, investment has two sides to SD: pushing and hurdling.

# 4.1 The positive

Marx thought that accumulation is the source of enlarged reproduction, some economic models deal with investment as unique factor driving economic growth<sup>3</sup>, save new institute school, most of schools of western modern economics regard investment as main factor to economic development<sup>4</sup>. Chinese economics circles and executors accentuate the important of investment, for example, inviting businessperson and introducing capital of areas and trades, no one does not focus key point on investment directly or indirectly. For Chinese case, GDP has the similar tread with total social fixed investment. If considering period of generating effects of fixed capital (about 2 years), their treads are the same. It shows investment pushes economic growth greatly. The first investment invents employment; the second ameliorate technological conditions and productivity; the third enhance people's performance, promote relationship cognizance of people to society, economy and nature; the fourth compensate damages and loss made to nature or other population. However, investment overused will produces many negative functions.

#### 4.2 The negative

Perhaps you may amaze investment's negative effects. Surely the negative is very big in some condition. Excessive developing colliery leads to destroy partition; over mining leads to loss water and soil, landslide; over deforesting leads to land barren; over-fishing to fish population vanish. Even more governments partake in these kinds of devastation unconsciously, such as building dam not fit with science, buying rare biological species with high price induces harmful investment; absurd policies stimulate investment, inconsistent price system provoked investment. These effects are more grievous than that done by single enterprise. "Great Leap Forward" in the 50's, afterwards "Agriculture Learns Dazhai, Industry learns Daqing", the destruction was shocking. There is a period in the 70's water conservancy works was nearly demolished. After liberation, several natural calamities had direct relationship with unscientific development. Major landslides in Sichuang, large water catastrophe in Anhui, Yellow River dried up are the penetrating lessons. Some times, good wish can not certainly make thing well, un-good wish can not do thing well absolutely. There were uncountable

<sup>&</sup>lt;sup>3</sup> liuhuiyong, Macroeconomics, People's University of China Press, 1990, P35.

<sup>&</sup>lt;sup>4</sup> Fanjiarang, Gaotianhong, Western Economics (Vol.3), China Economic Press, 1992.

cases in Chinese Construction history.

Recent years, China engages economic construction and social- economic development down-to earth, this is lesson we learnt from negative effects.

#### 5. Employing investment to promote sustainable development

#### 5.1 Capital use in space

For extensive territory and large difference in region, different region performs different development. Then it is possible try to retrench relative difference. It argues China to deal with the situation with investment promoting method in macroscope according to population, resources, productivity, strength of outside oriented connection etc.. To the back areas with great potentials, China shall invest more to mobilize total social power to develop advantage, abate bottleneck, stimulate active factors for SD. For these areas: the delta of Shanxi-Shan'xi-Inner Mogolia, along the way of Beijing-Hongkong, delta of Zhujinag, delta of Changjiang, area around Bohai Sea, area Three Gorges and basin Tarimu. Especially China shall use investment very well in these areas.

#### 5.2 Use investment in trades

Trade links all scopes with production chain. To large-scale enterprise, especially industry, agricultural and infrastructure, with leading roles, are most important to national economic development. An investment can induce many others. China or large-scale enterprises shall be in charge of leading investment, the induced is run by market. Chain invests in leading industries and key enterprises in the scope, then makes them to elaborate pushing function through production chain. SD needs to be supported by development, to invest leading industries and enterprises are to lay a foundation for SD. These basic and energy-row material industries are plantation, cultivation, iron ore, oil, colliery and railway, highway, telecommunication.

# 5.3 Coordinate investment in converged area

Decided trade and region both must be in certain area. The area infallibly is the important investment location. Investing there inevitably drives more large space and more extensive trades. Investment must be planned and scientifically capitalized in the area. China constructs key projects, locale for auxiliary, enterprise and individual for related trades and related enterprises. These areas are some of focus central cities: Fuyang, Jiujiang, Shenzhen, Yichang, Yibing, Germu, Sanmenxia, Qingdao etc..

- 5.4 During investing and within the areas, governments shall encourage plenty of investment cohering to social- economic SD. Linked with all respects of society and economy also and geographical space, investment can coalize all action of human. So governments shall encourage all investment to carry out obligations in SD.
- 5.5 Especially we shall attach importance to science and technology and enhance performance of people to lay a the most powerful reserved basis for SD.

#### ECONOMIC DEVELOPMENT OF TRANSPORT COTTIDORS AND ITS MODELS

-Some issues on the economic development of the Beijing-Kowloon (Hong Kong) railway corridor

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# 1. Economic Development of Transport Corridors: the Mechanism

Economic Development of transport corridors (EDTCs), lying on the constructions of multimode transport infrastructure and pleasing national industrialization, characterizes with highly agglomerated industrial enterprises and cities. Such a development is always seen as a primary developing mode of national economy and growth center of regional development in modern world. It has, therefore, become a major goal of governments in most countries or regions to pursuits for rebuilding and improving spatial organization through building up multi-mode transport corridors in order to speed up national and regional economic development as a whole.

In the 1980's, the Chinese government set a target for itself to modernize the country with a so called "point-axis" mode, which emphasized with the economic development first along eastern coast cities and national railway arteries, and constituted a territorial and regional plans. Very recently, the central governments announced the "Ninth-Five-Year Plan" and "Social and Economic Development Plan for 2010", and both sounded with a same tone to "build up and develop economic belts or zones along the coastal areas, the Changjiang River (the Yangtze River), the Asian-European Land-bridge and the Beijing-Kowloon (Hong Kong) Railway Line".

The Beijing-Kowloon (Hong Kong) Railway Line, with a total length of 2,538 km, went to its operation in 1996. Connecting with 2 municipalities (Beijing and Tianjing), 7 provinces (Hebei, Shandong, Henan, Anhui, Jiangsu, Jiangxi and Guangdong) this line has a greater opportunity to act as a powerful engine to speed up local economies as well as that of the country as a whole, and there is a little doubt about it that the economy of the whole region along the newly-built railway artery would be developed as an most advanced one in the near future.

Simply, the reasons for the growth of EDTCs can be described as follows.

First, a continuing improved transport infrastructure play a significant role for improving local communication network connecting with its outside and, in return, it can greatly promote local economic growth.

Second, exploitation of various resources (minerals, farm lands, water power and timber) in a large scale always lays down a sound ground for a further extensive development in the first stage.

**Third,** cities, especially those have a favorite locations and a rapid growth of, can act as the harbours of industrial agglomeration and become economic centers for defferent types of regions in the later stage.

Agglomeration and diffusion of industrial and population are the major sources for the growth of EDTCs, and the forme pdominates the growth pattern in the early stage of EDTCs, pushes the industrial operation to reach its moderate scale, promotes industrial diversification and breeds regional growth centers—in order to give rise to external economies associated with the collective use of the infrastructure of transportation, communication facilities and other services, while the later becomes a common phenomenon in the later stage of EDTCs in order to break through both physical and economic operational barriers. In reality, there are three type of diffusion which have occurred in the country: regular diffusion occurs while the growth centers extending their operations to the closed neighbouring areas; irregular type happens while the big cities develop their operation with some small cities in the remote areas first rather than the formers do; relocational type can occur in a relatively large space when the country changes its development policy due to same reasons such as building up national defense system or exploiting some special resources.

# 2. Types and Characteristics of EDTCs

In terms of economic development of the worldwide, there are four types of EDTCs. The one is that the EDTCs close to the coastal transport lines mainly serviced by ocean shipping such as those in Japan. The second one is that along great rivers such as those along the Rhein River in German and those along the Changjiang River (the Yangtze River). The third type is those which located along the national railway arteries for example the EDTCs along the Beijing-Shanghai, the Beijing-Guangzhou, the Harbin-Daliang and the Jinan-Qingdao Railway lines. The last one can be called as a combining type which breeds and grows due to a development of multi-mode transport infrastructure and a very accessible location.

Table 1 gives a summaries about the characteristics of EDTCs.

Economic development of the railway's corridors (EDRCs) are a common way in the countries with a great territory. The large scale of railway construction in early and the middle stages tremendously improves regional accessible capacity and extends external trade and opens wider. As a result, more and more resources from the inside and the outside flow into areas of the transport corridors or axis and it makes these areas go faster than any other regions in economic development. EDRCS become more advanced than those closed to the coastal line in the early stage of the country's industrialization, like that in large developing countries. The major reasons for such a development are to exploit the domestic resources and to build up a

national transport network for connecting all the corner of the country, and about which the Chinese practice can give a good example.

Between 1950's and 1970's, industrial enterprises in China were built up close to the national railway arteries. In fact, most industrial enterprises had a great characteristics of interior location orientation when the major railway lines were constructed towards to the west of the country due to abundant resources in the inlands and an unfavorable international atmosphere. Basically, such a development formatted the general pattern of the national transport network.

Table 1. General Characteristics of EDTCs

Terms	Marine transport corridors	Riverine corridors	Railway Corridors
	1. Favorable habours or river	1. Accessing to cheap riverine	1. Transport network is mainly
nt	mouths are able to access to		formatted by Railway and
conditions		2. Exploitation of water and	
ľ		hydroelectric resources usually	
Ì		are the most active factor to	
ĺ		promote regional development,	
	participates competitions and		opportunities for developing
	cooperation of cultures and		various regional economies.
		3. Abundant cultivated farm	
		lands in the areas of the middle	
1		and lower reaches lay down a	
1	and easily handle		abundant resources and have
1		development of agricultural	
	4. It also needs to access to the		4. Relying on regular and
		4. Rich mineral resources in	
ł		mountain areas of the upper	
		reaches are an important factor	
	seawater as much as possible.	. –	within a shorter period.
T		manufacturing Ind.	1. Dominated by railway
Transport features	1. Centered with an advanced	arteries, transport facilities	
leatures		can service for the whole area	
		which connected with them in	
	network to connect habours		superior than the former types.
}	with their interior hinterland.	2. Transport capacity is very	
	3. Providing container and		transport capacity, such as the
		3. Associated with railways	
		and highways and centered	
	market.	with riverine ports a multi-	million tons.
		mode network can be	
		formatted.	
	1. Trade and industry grow		1. The construction of railway
	side by side, and both have the	industrialization based on the	
1		development of primary and	
		secondary industries has been	
	l •	set up at first.	industrial and urban
į	resources.	2. A further development	
1	2. It is a breeding house for		2. Manufacturing industry
		development of strong forward	
	,		fast both in scale and types.
	"windows" of opening to	between industries and the	3. Industrial corridors have

outsides world for the whole	structure is going to diversify.	booming on a very mobilized
		structure and high technology.
		4. A strong cooperation ties
		the industrial system in these
4. Having a strong cooperation		
	flow into other regions.	
		5. With a diversified structure,
		the tertiary industry becomes a
	been developed and	
information and scientific		
	grown at the crosses of riverine	
these areas.	and railway lines.	

Taking a close look into the EDRCs, we can find that there are two general modes. One can be called as a close-mode with a strong characteristics of no ways to connect the international transport

network directly, and the other can be described as an opened-mode with one gateway getting through to its outsides directly at least. Good examples of such a type are the economic development of those along the Beijing-Shanghai, the Beijing-Guangzhou, the Harbin-Daliang, and the Jinan-Qingdao railway lines which connect with the Changjiang Delta Area, the Zhu River Delta Area and the Bohai Sea Rim at their ends. Since the announced "Open Door" policy, the economy has been booming in the coastal regions of the country first and then spreading into the inland areas along those railway lines.

The Beijing-Kowloon (Hong Kong) corridor maintains 22 prefectures of 7 provinces, and regional economies of all these areas are the less developed except that of Nanchang and Jiujiang prefectures. Under the circumstances that the Beijing-Kowloon (Hong Kong) Railway Line connecting with Hong Kong and the Pearl River Delta Area in the south and Beijing and Tianjing in the north, Hong Kong returned to its motherland and the continuing open policy, there is no doubt that the Beijing-Kowloon (Hong Kong) corridor has a great opportunity for economic development. Fully using such advantages to develop appreciate industries in some cities as growth centers, it would develop a railway corridor with a more advanced economy.

# 3. Samples of economic development of the Harbin-Dalian and the Jinan-Qingdao railway corridors

Built up in the early of this century, both the Harbin-Dalian and the Jinan-Qingdao railway corridors have grown into their mutual stage characterized with more advanced economies. The Harbin-Dalian Corridor, with a length of 950 km and covering Liaoning, Jilin and Heilongjiang provinces, now owns four biggest economic centers, namely Dalian, Shenyang, Changchun and Harbin, and numbers of specialized industrial cities. Of the corridor, the most advanced area is the section of Liaoning, which has 6 large and middle-sized cities and 2 large heighbouring

cities (Benxi and Fushun, and maintains 60% of the provincial population and 82% of the provincial GDP. With a length of 500 km and centered with Qingdao and Jinan, the Jinan-Qingdao C fridor has maintains 7 cities (Yantai, Weihai, Weifang, Zibo, Dongying, Laiwu and Binzhou) and owns 45% and 67% of provincial population and GDP. In fact, economy of this corridor has developed faster than any other one of North China since the late 1970s.

Economic development of the two corridors went through four stages. In the first stage, which lasted nearly 40 years from the very early of this century to the 1940s, coastal industrial cities were set up at first and the construction of some industrial cities in the inland areas was followed. Between the 1950s and the 1960s, both corridors grew into their second stage characterized with a thriving growth of the economic centers when the whole national development glued its "inward-looking" orientative policy. A rapid development of oil exploitation and a great expansion of oil refinery industry were the leading factors in the third stage, while the booming of industrial diffusion and structural adjustment of the nationwide since the 1980s have led both corridors drive into an "express way" (see Table 2).

Table 2 Development Stages of the Harbin-Dalian and the Jinan-Qingdao railway

Times	The Harbin-Dalian railway corridor	The Jinan-Qingdao railway corridor
Between the	1. It went to operation in 1903 and doubled	
early of this	in 1930s along with the Dalian seaport opened.	
century and		operation in 1904.
1940s	machinery and food processing were set up in	
	Dalian, which acted as the center of the whole	
		emerged in Jinan, especially the textile
	3. Great development of mineral exploitaions	
	of iron ore and coal along the corridor bred	behind that of Shanghai.
	numbers of newly industrial cities such as	
	,	developed.
		4. generally speaking, the modern industry was
	industrialization in Liaoning left other two	
	provinces (Jilin and Heilongjiang) far behind.	
1950's-	1. One-third of the key industrial projects	
1960's	during that period were mainly located along	
		southern neighbourings: Shanghai, Jiangsu and
	2. Shenyang, Harbin and Changchun grew into	
		2. As the interior economy was sped up,
	development of this region went toward to the	
	hinterland.	were developed greatly.
	3. A well-organized cooperation in the whole	
	Northeast was set up and a booming urbanization was witnessed while its industrial	
		4. Qingdao became the largest industrial center
	4. Industry and the businesses of marine	
	transport in Dalian were also developed in a	
	quite large scale.	,
		1 In order to support oil exploitation in
1060c	II A areat expansion of oil exploitation in	
1960s- 1970s	1. A great expansion of oil exploitation in Daqing provided great opportunities not only	

	corridor itself with an establishment of oil de	loubled in 1984.
	refinery and petrol-chemical industries.	2. Oil refinery and petrol-chemical industries
	2. As a result, there was about one-third of the w	vere set up in Zibo while its coal production
ŀ	oil-refinery's capacity of the country were tu	urned down.
	installed in Fushun, Dalian, Daqing, and 3.	. As a result, industrials development
	Harbin, and from these cities, great amounts of fo	ollowing the leader of Qingdao in other cities
	processed oil products were moved to its al	long the corridor such as Yantai, Weihai and
	neighbourings and the South China.	Weifang had greatly improved.
ļ	2. Petrol-chemical industries were built up in	
	Liaoyang and Jilin cities as well.	
	1. Dalian was the leader opening to the outside 1.	
1980s	after the "Open Door Policy" announced, and of	of China, Qingdao plays a key role in both
	it become the window of the Northeast to the th	
		nore advanced economy into its interior area.
	2. In the 1990s, the development of this 2.	
1	corridor have had great troubles, particularly no	
	those state-own enterprises although some of st	tructure and more advanced technology.
	them have been getting away from the troubles	
	very recently.	

#### 4. Basic features of EDTCS

The basic features of economic development of transport corridor can be summarized as the follows.

First of all, economic development in any kind of transport corridors is determined firstly by the situations of the national and international economy. Only the central and local governments as well as enterprises could make great efforts to fully use such opportunities relying on their abilities of superior justments and policy-making decisions, and it proved by the experiences of the economic developments in the Harbin-Dalian railway corridor and the Jinan-Qingdao railway corridor. In the early stages of both corridors, local economies were forced to serve as colonial frontiers of material suppliers for the industrial developments of Japan and German, and under such, no real manufacturing industries except those for maintaining and repairing were set up, even in the port cities. Since entirely controlled the Northeast China, Japan had engaged in coal exploitation and metal production in Fushun, Benxi and Anshan under a so called colonial policy of "Materials supply from Manchuria, and manufacturing production in Japan", while some machinery industry for a purpose of maintaining was set up in Shenyang. After liberation in 1949, economy of the Harbin-Dalian railway corridor was booming on both the capital input from the central government and the technological transformation mainly from the former Soviet Union. Since the late of the 1970s, the national economic development have been reoriented to the coastal areas from the south part

waved to the north one, and EDTCs along the coastal line were the leading part of the whole. In the 1990s, economic development of the central and west zones have been reinforced, and other types of EDTCs in the vast interior area have been witnessed.

Economic development of the Beijing-Kowloon (Hong Kong) railway corridor has started very recently, and if following the experiences of others and carefully selecting some leading industries concentrated in some favorable, it could be expected to get a good successful within the next 20-30 years to become a more advanced one between the Beijing-Shanghai and the Beijing-Guangzhou railway corridors.

Secondly, it is the common feature for most EDTCs to center on exploiting resources rationally and to establish advanced industrial systems in energy and raw materials manufacturing production in some cities along the corridors. It can be said that the construction of railways and mineral exploitation in a large scale are reinforced in EDTCs, and an integrated industrial center can be formed in a small area in which the industrial cities being connected with railway lines in a short period as the central parts of Liaoning and Shandong did (see section 3).

There have a plentiful mineral resources along the Beijing-Kowloon (Hong Kong) railway corridor such as the nonferrous metal and rare-earth minerals in the south of Jiangxi and coal in Shangqiu Prefecture in Henan. Also there have some good locations for the development of coal-burn thermal power industry depending on coal movement from Shanxi, the largest coal producer in the country, so that some heavy-electric-consuming industries could be attracted there and the power shortages in its heighbouring coastal areas could be released through power transmission from there.

Thirdly, the great expansion of textile and food processing industries do provide a growing market for the development of local farming production along the railway corridors. Shandong, for example, is one of the largest national producers in agricultural production, and it can be attributed to the development of the textile and food processing industries in Qingdao. After more 60 years' experience, the textile and food processing industries were still to be the leading sectors in Qingdao's economy, and in 1995 they were the first and the second largest industrial groups of the city in terms of their industrial output values. The same things happened in the newly developed cities such as Yantai and Weihai, and the textile and food processing industries were the second and the third largest groups just following machinery industry. Capturing the great potential of land resources along the Beijing-Guangzhou railway corridor, Before liberation, no modern industries could be find in Zhengzhou (the capital city of Henan) and Shijiazhuang (the capital city of Hebei) had developed their textile industries successfully since the 1950s and become important production bases of the national textile industry. such a case, comparing with that no any modern industries could be find in both

cities.

Along the Beijing-Kowloon (Hong Kong) railway corridor there have a great potential land resources and varieties of climates for developments of agricultural, timber, husbandry and fishing industries. Considering the huge domestic market and associating with the national industrialization, reinforcing such developments could lay down a sound ground for setting up an unique light industrial system which could act as a leading sector for the whole economy of this corridor.

Lastly, in terms of the law of industrial agglomeration and diffusion, the economic growth of all these corridors will go down toward to their hinterlands, a hierarchy of economic centers could be formatted, and at last, EDTCs will go to into their mutual stage.

# DEVELOPMENT AND DEVEMOMENT MODEL OF COMMUNNICATIONS-BASED ECONOMIC BELT

- ON THE DEVELOPMENT OF BEIJING-KOWLOON ECONOMIC BELT

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#### 1. Mechanism for the Formation of Communications-Based Economic Belt

A communications-based economic belt is an area with the convergence of highly developed industries and cities centering round a communications trunk line (or transport channel). Its formation, development and evolution keep in step with the process of industrialization and is closely associated with social and economic changes. In the process of regional economic development, the formation of a mechanism for the harmonious development of transportation and regional economy centering round a communications trunk line, with cities along the line as places of concentration and growth center and the rationalization and upgrading of industrial structure as the purpose is an effective way for developing regional economy. Developed communications-based economic belt is the center for regional economic activities.

A country or a region realizes an orderly, coordinated and sustainable development of productive forces and society and achieve rationalization of spatial organization through the establishment of a number of different types of communications-based economic belts at different levels. Since the mid-1980s, China has adopted the "point-axle" development model in order to realize a rapid economic growth and enhance its overall economic strength and has formulated corresponding land program and regional economic development program, which constitute a specific manifestation of the application of the theory of communications-based economic belt in practice. The Ninth Five-Year Plan for Social and Economic Development and the Long-Term Objectives for Years up to 2010 clearly visualized the establishment and development of economic belts along the coasts, the Yangtze River, the Eurasia Continental Bridge and the Beijing-Kowloon Railway. The Beijing-Kowloon railway has opened to traffic. The 2,538-kilometer long trunk railway links the capital city of Beijing and port city of Tianjin in the Bohai-rim region in the north and Hong Kong and Shenzhen in the south, running through seven provinces and two municipalities. It promises great development potential and will soon give rise to a fairly developed railway-based economic belt.

The causes for the formation of communications-based economic belt may be generalized as follows: (1) Constantly improving transportation channels is the pre-requisite for

communications-based economy and the transportation will guarantee, promote and guide social and economic development; (2) all kinds of resources (minerals, agricultural and forestry resources, water sources and water energy) are the major base for the industrial development at the initial period in the formation of economic belts. With the expansion of industrial scale and adjutements of structure, the resources along the line and the surrounding areas would be utilized more fully; (3) prominent cities along the line are the backing of industrial concentration (especially the secondary and tertiary industries). Places with different geographical advantages will become economic centers at different levels.

The concentration and diffusion of industries and population are the basic ways for forming and developing communications-based economic belts. Concentration effect pushes industries to their appropriate scale, promote division of labor and cooperation to develop to depth and the concentration of different industrial departments can put to better use communications, telecommunications, commercial, financial and information facilities. Different types of concentration groups with intrinsic ties may be formed along communications trunk lines. The concentration mechanism enables the geographically superior points inside an economic belt to start first to become the growth centers along the line. The diffusion effect is mainly the concerted action of diffusion push and the pull of lagging areas, involving both the objective demand of enterprises in expanding cooperation and seeking investment points and the policy regulation behind by the government in order to coordinate regional development and narrow gaps. There are three types of diffusion: (1) expansion diffusion, that is, growth centers or cities diffuse their industries outwardly; (2) grade diffusion, that is, to diffuse to distant cities or centers by jumping close neighboring small cities and then to secondary centers; (3) redistribution diffusion, which has large spaces and is sudden in nature, capable of bringing about drastic changes in the industrial distribution at different levels in a communications-based economic belt. Concentration and diffusion proceed alternatively and are mutually conditioning and supplementary to each other. At the initial period of the development of economic belts, concentration dominates and in the middle and late periods, diffusion dominates. The ceaseless cycle of the process of "concentration -- diffusion -- re-concentration -- re-diffusion" enables the growth points in an economic belt to increase steadily, the overall strength and industrial strength to increase and industrial structure to upgrade gradually. The steady development of the economy and technology of countries and the world constitute the fundamental motive force to push this process forward.

# 2. Types and Features of Communications-Based Economic Belts

Communications-based economic belts can be divided into four types according to the features of communications axle line: (1) close-to-the-sea type, such as the Pacific Economic Belt of Japan; (2) along the banks of major rivers; such as the Rhine Economic Belt in Europe and the Yangtze Economic belt of China; (3) Railway economic belt or land-locked economic belt, such as the economic belt along the Eurasia trunk railway in the former Soviet Union, and the economic belt along the Beijing-Shanghai, Beijing-Guangzhou, Harbin-Dalian and Qingdao-Jinan railways; (4) economic belts based on integrated transportation channels, that is composite-communications-based economic belts for which multiple communications

infrastructure provides services, such as the parallel land trunk lines built along the coasts and rivers, express highways parallel with railways. The areas along the economic belts may make full use of different means of transport and may select different combinations of transport for passengers and merchandise.

The features of different types of economic belts are manifested in the development conditions, features of communications and features of industrial development (See Table 1).

The land transport-based economic belts are very common in countries with a vast territory. During the initial and middle periods of industrialization, these countries usually built railways on a large scale to improve the accessibility to all regions, enhance regional exchange and degree of opening to the outside world. They do not only directly promote the development of resources and economy as a whole along the lines, with some railway trunk lines becoming the axle of development but also attract the nearly resources and economic potential to the axles to make them developed industrial belts rapidly. The process of growth and industrial upgrading of railway-based economic belts are usually faster than coasts-based economic belts, because (1) the route selection of railways is based on a multiple choices of different points or regions favorable for development while coastal and along-the-river type are determined by natural conditions; (2) railways have big carrying capacities and their speed is fast and they have good accessibility through the systematic networks. From the founding of New China to the end of the 1970s, China distributed its industries, especially manufacturing, mostly along railway lines or in conjunction with railway construction. Under the then international situation, resources development and industrial distribution mainly moved toward the inland areas and the construction of new railways went side by side with the development of minerals and industrial bases, thus giving rise to a number of railway-based economic belts.

The railway economic belts can be divided into inland type and coasts accessible type. It is more difficult for land-locked inland railway economic belts to open to the outside world and bring themselves into line with the world market economies and has an obvious time lag as compared with coastal type economic belts and the lower-reach areas (especially delta areas) of the along-the-river type economic belts in terms of upgrading of industries. But a railway type economic belt with one end or both ends reaching coasts may, to a large extent, make up for this defect. China's economic belts along the Beijing-Shanghai, Beijing-Guangzhou, Harbin-Dalian and Qingdao-Jinan ralways can reach the Yangtze River delta, the Pearl River Delta and the Bohai-rim coasts. Since China introduced the reform and open policy, the coastal regions have made rapid development and the effect is moving toward the inland areas along the communications lines, playing a marked lead role.

The areas of the 22 cities and areas of seven provinces passed through by the Beijing-Kowloon railway are all backward areas of respective provinces except the Nanchang-Jiujiang section where development is fairly high in Jiangxi province. But Hong Kong, Shenzhen and the Pearl River Delta on the southern end and Beijing and Tianjin on the northern end have easy communications conditions for reaching the inland from the coasts. With the opening in all domains, the deepening of reforms and the return of Hong Kong, the areas along the Beijing-Kowloon railway are facing good opportunities for economic development. So along as we are

good at turning communications advantages into industrial advantages, make a number of geographically important points as growth poles and select proper industries and fix the rational orientation, we can certainly build the areas into a fairly developed economic belt in a short period of time.

Table 1 Main Features of Different Type of Communications-Based Economic Belts

	Coastal type	Along-the-River type	Land-locked type	
Development	1. Good harbors and bays and river sections;	1. Large rivers can be made large transport	1. Backed by large land transport channels, the	
conditions	tremendous usable capacities and cheap	channes and the waterway transport is cheap.	railway trunk and road trunk lines are the main	
	shipping reachable to all continents.	2. The development and utilization of water and	transport means.	
	2. Situated between land and sea, it is favorable	water power are the powerful factor to promote	2. Big carrying capacity, good reachability,	
	to participate international and regional	the economic development along the banks,	reachable to the vast areas through branch lines;	
	economic and social activities and accept	favorable for the concentration of large water	fast speed, offering multiple choices for	
	advanced technology and culture in the world.	and energy consuming industries.	passenger and cargo transport, favorable for	
	3. There are land and spatial resources with big	3. The agricultural belts and cities on the plain	participating in extensive economic activities.	
	development potential and environmental	areas of the lower reaches provide the solid	3. As the routes are selected artificially, the	
	problems can easily be resolved.	foundation for development.	areas passed have resources of important	
	4. With rich marine biological, mineral and	4. Originated in mountainous areas and flowing	devleopment value and the geographical	
	energy resources, they can make full use of sea	through hills and plains, the river areas have	locations are important.	
	water to conserve fresh water.	good geological conditions and mineral	4. Developable in a short period of time,	
		resources.	favorable for diffusion and convergence, also	
			developable in a jumping manner.	
Features of	1. With developed coastal ports as the main	1. With trunk line navigation course as the main	1. Powerful transportantion channel can be built	
communications	body, they form an integrated land and sea	body and, through branch channels, link up vast	with railway trunk lines as the main body and	
	transportation hub and the integration of	areas; Little investment is required for the	roads as supplements, capable of satisfying	
	comprehensive central harbors and specialized	beginning period of industrialization to realise	different demands; the timeliness and	
	harbors.	rapid development; and cheap waterway	convenience are better than coastal tye and	
	2. It is possible to build and open up trunk lines	transport can be utilized.	along-the-river type.	
	for collection and distribution of goods from the	2. Tremendously big carrying capacity.	2. Railway trunk lines have big carrying	
	sea ports to inland areas.	3. Land transport trunk lines can be build along	capacities. Currently, the Beijing-Guangzhou	

	3. Container shipping takes key ports as the	the rivers to form an integrated transport	and Beijing-Shanghai railways undertake to
	centers, which organize international shipping	channels to improve transportation conditions.	operate 30- 04pairs of passenger trains and 70
	and, through land transport, realize door-to-door	4. Radiative land communications network or	million tons of cargo transportation. In the
	service.	trunk lines can be build centering round river	future, express highways for passenger transport
		ports.	may be built, parallel with the lines (with speed
			up to 200km/hr). The good handling capacity
			may exceed 100 million tons.
Industrial	1. Commerce and trade go side by side with	1. Usually starting from basic indsutries, use	1. The building of railways is decisive to the
development and	industry, mutually reinforcing, with products	water nergey, minerals, agricultural products to	regional development along the lines, capable of
structure	catered to both home and international markets	develop raw materials industry, hydropower and	rapidly changing the accessibility of different
	and both home and international resources to be	large scaled plant culture and processing	regions, favorable for multiple resources and
	used.	industry.	economic potential to concentrate on
	2. The origin and sources of diffusion of new	2. Industrial chains are usually long, with strong	development axles.
	technology, new industries and new	associability of all departments and processing	2. Starting from mining, raw materials
	mechanisms; serving as windows of developing	industries may be developed on the basis of the	industries, farm produce processing, with scales
	countries to the outside world.	original raw materials industry.	swiftly expanding.
	3. Industrial structure types are diversified the	3. The technical levels of the division of labor	3. The economic scale and industrial upgrading
	starting type of basic and raw materials	among different industries usually develop from	in the industrial belts can be upgraded rapidly to
	industries, processing industries and	lower to higher level from the upper reaches to	realize industrialization of processing and
	commercial and trade.	the lower reaches, with primary products	application of high technology, thus forming an
	4. Industrial associability is usually not big. The	carried from upper reaches to lower reaches and	industrial belts in a short period of time.
	relations of mutually supplementation and	finished products from lower reaches to higher	4. Industries along the lines are highly
	cooperation mainly manifest themselves in	reaches. Minerals and petroleum can also be	complementary to each other and cooperation in
	attracting inland or overseas investments.	shipped in from overseas.	development proceeds rapidly.
	5. International econmic centers (financial	4. Commerce, trade and tourism have a long	5. Tertiary industry develops rapidly and in a
	circulation, with information as representative	history of development, with commercial and	diversified forms, favorable to display its roles

and high technology as main industries) are	trading centers mainly distributed in the	in stimulating the development of the secondary
mostly distributed in areas along the coasts.	confluence of main river courses and circulation	and tertiary industries.
	centers formed at the junctions between	
	railways and rivers.	

# 3. Analysis of the Formation and Development of the Typical Railway-Based Economic Belts of Harbin-Dalian and Qingdao-Jinan

The Harbin-Dalian and Qingdao-Jinan railways were built at the beginning of this century. Through 90 years of development, which may be divided into four stages, both have become fairly developed railway-based economic belts. The Harbin-Dalian railway is about 950 kilometers, running through the three provinces in Northeast China. Along the way, there has formed a group of highly specialized industrial cities, with Dalian, Shenyang, Changchun and Harbin as the four major economic centers. The Liaoning section of the railway directly links up six large and medium-sized cities and radiates to Fushun and Benxi, with a population accounting for 60% of the provincial total and a GDP accounting for 82% of the provincial total. The Qingdao-Jinan railway economic belt, with Qingdao-Jinan and Lan\_-Yantai railways as axle, is more than 500 kilometers. With Qingdao and Jinan as its economic centers, the belt covers four cities (coastal cities of Yantai and Weihai and two inland cities of Weifang and Zibo) and three prefectures of Binzhou, Dongying and Laiwu as attraction areas. The population along the line makes up 45% of the national total and GDP, 67%. It is the fastest developed economic belt with a high degree of concentration of industries in northern China since China introduced reform and opening up.

The two major railways went through four stages of development: (1) the rising stage from the beginning of this century to the 1940s, when modern industries were built in coastal cities and part of inland urban industries started; (2) initial stage from the 1950s to 1960s, when the inland economic centers rose and coastal industrial cities developed rapidly; (3) growth stage from the mid-1960s to the 1970s when the petrochemical industry began to develop rapidly; (4) advance stage since the beginning of the 1980s when industrial diffusion went side by side with restructuring (See Table 2).

# 4. Regular Features of the Formation and Development of Communications-Based Economic Belts

The following is an analysis of the regular features of communications-based economic belts and other types of economic belts as represented by the Harbin-Dalian and Qingdao-Jinan railway-based economic belts in a bid to provide what can be learned in the building of the Beijing-Kowloon railway economic belt.

Table 2 Formation and Development Stages of the Harbin-Dalian and Qingdao-Jinan Railway Economic Belt

Period	Harbin-Dalian Economic Belt	Qingdao-Jinan Economic Belt	
Swift takeoff	1. The Harbin-Dalian railway was opened to traffice in 1903, 945	1. Qingdao-Jinan railway was built in 1904, 384 km long. Qingdao	
period from the	kilometers long, double-tracked in the 1930s. Dalian port opened.	port opened.	
beginning of	2. Modern indsutries began to be built in Dalian port, with machine-	2. Modern industry built in Qingdao, with textiles, food processing	
this century to	building and food processing as the main undertaking, to become an	and communnications machinery as the main undertaking; a second	
the 1940s	economic center in Northeast China, with output value ranking first.	largest textile city in the 1930s, next only to Shaghai, developing	
	3. Iron mine along the line was opened, with large iron works built	faster than Tianjin.	
	and products shipped to Japan for steel making and rolling; Fushun	3. Coal mining started in Boshan, products exported.	
	coal mine was opened and Benxi iron mine was exploited on a large	4. Industry in Jinan remained backward.	
	scale.		
	4. Jilin and Heilongjiang were slow in development.		
Overall	1. Northeast China area was the priority for development in the	1. Shandong was incorporated into the East China cooperation zone,	
formation	country's industry, with one third of the 156 major state projects	with major tasks to shipping coal, ore and farm produce to	
period from the	built in the area, principally along the Harbin-Dalian railway.	Shanghai, Jiangsu and Zhejiang.	
1950s to the	2. Economic gravity turned inward, with industry in Shenyang,	2. Inland economy picked up, with large-scaled industry built in	
mid-1960s	Harbin and Changchun developing rapidly to become economic	capital city of Jinan; coal mining in Zibo expanded.	
	centers of southern, northern and central parts of Northeast China	3. LanYantai railway completed in 1954 (184km); construction of	
	area.	Yantai port picked up, with light industry developed swiftly.	

	<ol> <li>Division of labor in industry in the Northeast China cooperation zone began and a large number of specialized cities along the line growing, such as iron city of Anshan, light industry and textile city of Yingkou. Heavy-duty machinery manufacturers were also distributed along the line.</li> <li>Industry in Dalian developed and marine shipping developed steadily.</li> <li>Industrial belt formed in an all-round manner, taking along the vast areas on both sides of the line.</li> </ol>	<ul> <li>4. Qingdao industry developed steadily, with light industry, textiles, food processing and machine-building expanded; economic aggregate ranked first in the province.</li> <li>5. Industrial belt took initial shape and began to diffuse to Lan_Yantai line.</li> </ul>
Growing period from the mid-1960s to the 1970s	<ol> <li>Taking advantage of the large scaled development of the Daqing oilfield, it built a powerful petroleum and chemical industries along the line.</li> <li>Oil processing industries were built in Fushun, Dalian, Daqing and Harbin, with capaicty accounting for one third of the country's total; Products and crude oil were exported to other parts of the country and the world.</li> <li>Petrochemical industry was bult in Liaoyang and Jilin.</li> </ol>	<ol> <li>Shengli oilfield came important production base; Qingdao-Jinan railway guaranteed its development; the railway was double-tracked in 1984.</li> <li>Coal mining in Zibo declined; powerful oil processing and chemicals were distributed; industrial structure underwent major adjustments.</li> <li>Industry developed in Yantai, Weihai and Weifang. Qingdao ranked first in Shandong in its economic development.</li> </ol>
Adjustment and advance period since the beginning of the 1980s	<ol> <li>Dalian opened to the outside world to become window of Northeast China; development zone opened; industrial output value exceeded Shenyang to rank first in Liaoning.</li> <li>Economic centers and industrial cities along the line developed, but restricted by the large proportion of heavy industries and state own enterprises. Since th 1990s, enterprises began to shift their operational mechanism, injecting renewed vigor into these enterprises.</li> </ol>	<ol> <li>Qingdao opened to the outside world, becoming window to outside world and took along inland areas. Its position reinforced; industrial diffusion accelerated; structure upgraded.</li> <li>Primary, secondary and tertirary industries developed in an allround manner in Yantai and Weihai; economic position rose to become new growth centers.</li> <li>Weifang accepted industrial diffusion from Qingdao; electronics industry rose at a high point while developing light and textile industries.</li> </ol>

1. On the macroeconomic background and the utilization of opportunities in the formation and development of communications-based economic belts.

Each communications-based economic belt developed against the general situation of the state and even the world economy. Only when a country, a local government and an enterprise is good at grasping the opportunities, make correct policy decisions and correctly fix the orientation of development and distribution, is it possible to accelerate the development of industrial belts. Take Harbin-Dalian and Qingdao-Jinan railway economic belts for instance. Their initial development period was in the semi-colonial old China and started during the period of Japanese occupation. Although the invaders brought in modern industries, first to the coastal port cities, their main purpose was to rob China of its resources. Anshan and Benxi had the fine conditions for building iron and steel complexes, but Japanese invaders only built mining and iron smelting industry there. The machine-building industry in Shenyang could only do repairs. The industrial belt is of colonial nature. After New China was founded, the country introduced a planned economy. Subject to the restrictions by the international environment, emphasis of development was put in the inland, which gave rise to a number of railway-based economic belts. Technology was imported mainly from the former Soviet Union. The "third line" construction projects borne such characteristics. After 1978, China introduced reform and opening policy, moving its emphasis of development towards the coasts, stimulating the development of coastal economic belts, first in the south and gradually moving to the north. In the 1990s, China strengthened the development of the central and western parts of the country, promoting the different level development of all types of communications-based economic belts.

The Beijing-Kowloon Economic Belt has just started. So long as we can grasp the opportunities, make breakthrough progress in selected points and correctly opt for lead industries in different sections and cities along the railway, it is entirely possible to build a fairly developed economic belt between the Beijing-Shanghai and Beijing-Guangzhou economic belts in 20-30 years time.

2. To build developed energy base and raw materials industries to form a number of specialized cities by utilizing and developing the resources along the line and its surroundings. The building of railways has created the conditions for the large scaled development and utilization of mineral-rich areas along the line and surrounding areas. Anshan and Benxi constitute one of the three major iron-ore rich areas in China. Development and iron works started in the 1920s. After liberation, mining scale was expanded and largest iron and steel complexes were built. The iron and steel industry used coal from Fushun, which was then made a "coal capital". Then, coal from Jixi, Hegang and Shuangyashan were used, making these places coal production bases. In the 1960s, Daqing oilfield developed and oil processing began to develop in Fushun, because during World War II and the outbreak of the Pacific War, Fushun started to produce petroleum by using oil-shale associated with coal, but the scale of production was small. Fushun is situated in the central part of Liaoning and oil processed there may be shipped to other areas of the Northeast China area and even to areas inside Shanhaiguan pass. In such circumstances,

Fushun was turned from a coal capital into an oil processing city and coal mining began to decline. Zibo along the Qingdao-Jinan railway underwent the same changes, from a coal city into an oil processing city, using crude from the Shengli oilfield.

Along the Beijing-Kowloon railway, only the non-ferrous metals and rare earth in southern Jiangxi and coal near Shangqiu are of development value. A survey shows that the railway has the conditions of building a string of thermal power plants by using coal from Shanxi. A number of power plants could be built at intersections of roads along the line to provide power for local consumption and improve investment environment and to transmit power to energy-thirst coastal areas.

(3) To develop light and textile industries by using agricultural, forestry and aquatic resources along the line to stimulate the development of agriculture. Shandong has been China's major agricultural production base. The textile and food processing industries as a starting industry in Qingdao were based on the rich agricultural resources in the area. In the 1920s and 1930s, Qingdao became the second largest industrial city next only to Shanghai. Up to the present, such industries remain the pillar of the city. In 1995, textile output value still ranked first in the city and food processing ranked third. The upcoming cities of Yantai and Weihai are also noted for their textiles and food processing industries, which ranked second and third in the whole industrial output value. Light industry has always accounted for about 60% in the three cities. One of the major reasons is that the Shandong peninsular has a high level of agricultural development, reinforcing the development of light and textile industries. The areas along the Beijing-Kowloon railway abounds in rich agricultural resources and superior positions of capital cities. In the 1950s, textiles industrial became a lead industry in Shijiazhuang and Zhengzhou where modern industries were almost blank. Since reform, China's agriculture and rural economy made major progress. The major tasks for the 1990s are to develop high yield, high quality and high efficiency agriculture. In recent years, a correct orientation for the development of factory farming has been fixed.

Many areas along the Beijing-Kowloon railway do not have much mineral resources, but are rich in agricultural, forestry, livestock and aquatic resources. The line covers a full range of tropical to northern temperate zone. Agriculture along the line can only develop and should never be weakened due to market demand. So the areas along the line should seize the opportunities to develop light industry and food processing in all sections to make them pillar industries and to stimulate the development of agriculture. The area will become an economic belt that closely integrates industry with agricultural development, which should become one of the outstanding features of the Beijing-Kowloon economic belt.

(4) The growth and movement of the economic centers of industrial belts.

With the development and growth of communications-based economic belts, industries will move from coastal to inland areas or from inland to coastal areas or from central cities to coastal backward areas or secondary cities.

# ECOLOGICAL SUSTAINABILITY IN THE AREAS ALONG THE BEIJING-KOWLOON RAILWAY: PROBLEMS AND COUNTER-MEASURES

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#### **Abstract**

With the completion and operation of the Beijing-Kowloon Railway, the areas along the line is become a new "economic growth belt". The article, from the concept of sustainable development, explores the resources and environmental problems in the development of the areas along the Beijing-Kowloon Railway and puts forward a number of policy recommendations.

#### 1. A New "Economic Growth Belt"

Since the beginning of the 1980s, China has made achievements in its economic development that has attracted worldwide attention. First, the GNP has maintained the momentum of high speed growth, averaging an annual growth of about 10%; secondly, breakthrough progress has been made in the reform of the economic system, with the traditional planned economy being replaced by a socialist market economy. The "China miracle" has made noted western observer John Naisbitt assert that China is bound to become a "new world (economic) power" in the next century.<sup>5</sup>

However, China's economic development is extremely uneven spatially. Compared the coastal regions, the central and western parts of the country are very backward economically, with the per capita GNP very low (See Table 1) and the gap with the eastern part still widening. As the total population in the central and western parts of the country accounts for over 60% of the national total, it is of great importance to accelerate the economic development in the central and western parts of the country and safeguard social stability and promote a healthy development of the national economy.

John Naisbitt, Asian Megatrend, Chinese version, translated by Wei Wen, Foreign Language Press, 1996, p. 248.

Table 1 Comparison of Per Capita GNP

	Eastern Part		Central	Central Part		Western Part		
	Guangdon	Fujian	Jiangsu	Anhui	Jiangxi	Henan	Gansu	Qinghai
	g							
1991	2823	1803	2143	1052	1212	1141	1133	1592
1994	6380	5386	5785	2521	2376	2475	1925	2910

Source: China Statistical Yearbook, 1993, 1996, China Statistical Publishing House

The completion of the Beijing-Kowloon Railway has directly linked up the central part of the country with the southern coastal areas, injecting renewed vigor into the economy in the central area. Statistics show that in recent years, the economic growth of the areas along the Beijing-Kowloon Railway has picked up rapidly. The GNP in the areas along the Jiangxi section of the railway grew more than 20% in 1994, far higher than the national average. The amount of foreign capital they used increased by 53% over the previous year. Some people have estimated that the railway will contribute to about 10 billion yuan to the industrial and output value of Jiangxi in 1996-2000. This shows that the areas along the line is become a new "economic growth belt" in China and a large scaled economic development has started.

# 2. Sustainability of Economic Development and Ecology

Economic development is closely related with ecological sustainability. On the one hand, economic development has to be led by the development and utilization of resources and environment and that will inevitably affect and change the structure and functions of the ecological environment. Conversely, the undesirable changes in the structure and functions of the ecological environment will restrict the economic development. For instance, the water pollution of the Huaihe river has caused the reduction in the utilizable water resources and that has not only affect the living of the people along the banks but also caused industrial and agricultural production to reduce or stop, with inestimable economic losses. In order to ensure the smooth-going of economic development, it is essential to pay full attention to the protection of the ecological sustainability.

Ecological sustainability manifests itself in the following aspects:<sup>8</sup>

- (1) Protection of the ecological system and its diversity;
- (2) Sustainable utilization of renewable resources and minimization of the consumption of non-renewable resources;
  - (3) Confining human activities to the scope allowable by the ecological system.

In view with these three aspects, we should pay attention to the following problems in the development of the areas along the Beijing-Kowloon Railway:

<sup>&</sup>lt;sup>6</sup> Zhou Lingrong, Impact of the Beijing-Kowloon Railway on Jiangxi's Economy, pp. 10-16.

<sup>&</sup>lt;sup>7</sup> Huang Zhigang, Quantitative Analysis and Prediction of the Impact of the Beijing-Kowloon Railway on Jiangxi's Economy, 1997 (1), pp. 34-36.

JUCN/UNEP/WWF, (1991), Caring for the Earth -- A Strategy for Sustainable Living, Gland, Switzerland.

# 2.1 Pollution problem

The more than 70 counties the railway passes through are agricultural and pollutants discharge is small, and the environmental quality remains sound, thus providing favorable conditions for economic development. But, pollution problem is still very serious in some localities, which should not be ignored.

#### 2.1.1. Noise pollution

The direct passing of some cities and towns of the railway has directly affected the functions of the cities planned. In some sections, such as Fuyang Railway Station in Anhui, the teaching area is only a dozen meters away from the railway. The noise pollution in the teaching areas when a train passes is estimated to be 70dBA, falling far short of the requirements for a teaching environment.

# 2.1.2 Air pollution

Air pollution is the most serious in Nanchang. Results published by the State Environmental Protection Agency show that the daily average value of sulfur dioxide in Nanchang was 0.069mg/cubic meter in 1995; its total suspended particles average 0.279mg/cubic meter a day. The occurrence of acid rain averaged more than 80% in the city proper and the trend is rising.

# 2.1.3 Water pollution

The railway crosses the Yellow, Huaihe, and Yangtze rivers. All the waterways have been polluted to varying degrees. The pollution of the Huaihe River is the most serious. Pollution of 82% of the river sections has exceeded the prescribed standards during dry season. Many major pollution accidents have occurred in recent years, causing inestimable direct or indirect losses.

#### 2.2 Ecological problem

The economic development of the areas along the railway will affect the related water ecological system and the land ecological system.

# 2.2.1 Water ecological system

Poyang Lake is the largest fresh water lake in China. The lake area is noted for its subtropical wet monsoon climate, with ample rainfalls and sunshine, very favorable habitat for all kinds of birds. Incomplete figures show that there are 236 species of birds on record, accounting for 19.9% of the national total. Among them, 49 come under state protection. The State listed the Poyang Lake area as a state class natural reserve in 1988 and was listed in the Important Wetland Catalog by the World's Wetland Convention by UNESCO.

Due to artificial factors, the Poyang Lake Natural Reserve is being threatened. The Poyang Lake is heavily polluted by heavy metals (Cu, Zn). The maximum detection rate of Zn has reached 3.23mg/L, exceeding the fishery standards by more than 30 times. The

water body is also polluted by toxic matters such as chloride, phenol and petroleum. The direct reasons for the pollution are the waste water discharged by mines, metallurgical enterprises and urban industries around the lake. In order to protect the water ecological system, it is necessary to adopt measures to control the discharge of pollutants.

# 2.2.2 Land ecological system

Jiangxi province is rich in forest resources. The forest cover in the Ganzhou area is close to 50%. Due to historical reasons, the development and utilization of forest resources were affected. With the completion of the Beijing-Kowloon Railway, the felling of trees will be accelerated and that will threaten the forest ecological system.

# 2.3 Resources problem

An outstanding problem is water source. The lower reaches of the Yellow River began to dry up since 1972 and the frequency of dried-up river beds has become higher and higher and the dried-up sections have become longer and longer. In 1995, the Lijin section in Shandong went dry for 121 days and the Hekou area went dry for 153 days. This has directly affected the living of the local residents as well as agricultural and industrial production. So, water shortage will become a problem of first importance in the development of the areas along the line.

Then, the economic development of the areas along the line will lead to the acceleration of industrialization and urbanization and that will occupy more land, thus affecting the development of agricultural production.

#### 3. Conclusions and Recommendations

- 3.1 The areas along the Beijing-Kowloon Railway are mutually complimentary in natural resources. In order to rationally utilize the resources and environment, it is necessary to coordinate the economic development activities along the line. This presents the need to establish an economic coordination organization to discuss matters on economic development and environmental protection, regularly or irregularly.
- 3.2 It is necessary to organize a comprehensive survey of the related resources, environment, population and economy and map out a development plan for the areas along the line.
- 3.3 It is necessary to coordinate the formulation of related economic policies, resources and environment policies according to the requirements of sustainable development.

# REGIONAL DEVELOPMENT AND INFRASTRUCTURE

Outline of a paper prepared for Themes 4 & 5 of (Beijing, 02-04 September 1997)

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# 1. Introduction

The purpose of this presentation is to provide observations on regional development, the future settlement structure, and infrastructure requirements in the regions along the Jingjiu Railway corridor, from Beijing to Kowloon.

The basic aspect concerns development opportunities in the functional regions centred on the cities along the corridor. Together, these regions form a contiguous belt along the Jingjiu railway. Cities along the region have populations of between 100,000 and 300,000, with the exception of Nanchang, with more than 4 million inhabitants. These cities are crossing points along the Jingjiu railway with railways in east-west direction.

The presentation is made according to the following:

- a number of **factors** related to socio-economic and spatial arrangements, and different types of infrastructure are identified, and current status and trends for the future are discussed:
- some principal scenarios with regard to future settlement structure and infrastructure along the Jingjiu corridor are identified; these scenarios refer, basically, to the future settlement structure in terms of degree of centralisation/decentralisation of settlements;
- a **discussion** of these scenarios from different aspects forms the third main part of the presentation; and
- based on this discussion, a **tentative summary assessment** of the scenarios and comments on regional development are provided.

# 2. Factors

The main factors in the presentation concern the following:

(1) **population characteristics**, in particular population growth and age distribution.

In most regions along the Jingjiu railway, a population growth of slightly above one per cent has been assumed, following the average for China. With improvements in health, the population in China will successively have an increasing average age. The age distribution is different between the villages and the strongly growing cities in the coastal areas, the former experiencing ageing populations and the latter composed of

<sup>&</sup>lt;sup>9</sup> Complan AB, Lindigö, Sweden

relatively young populations. The future age distribution in the settlements therefore is becoming an increasingly important issue. However, even those who move to find employment in cities and other provinces still retain their base in their home villages.

(2) **economic structure**, i.e. the distribution of the economy between sectors, in particular rural and urban sectors, related to the settlement structure, i.e. the rate and form of urbanisation.

For the sake of simplicity, it is assumed that the change in economic production is an exogenous factor in the discussion. China will most likely continue its strong economic growth in manufacturing—both for export and for an increasing domestic consumption. In parallel with this, the service sector can be anticipated to expand strongly, related both to business and household services. The growth in manufacturing and service employment will most likely be distributed between all settlement types, with the exception of the lower range of the size distribution. Along the JJR, all cities seem to be expecting strong growth in their manufacturing base. However, it seems that the emphasis is put on the larger cities, and that the towns and villages are assumed to experience a continued, gradual decline in their population base.

(3) social infrastructure, such as for education, health, etc.

This infrastructure, which is critical to sustainable economic development, relates to the most important part of the wealth of nations—human resources development. The size and distribution of these services therefore constitutes a critically important part of the development process. Their distribution between settlements becomes an important considerations in future of settlements.

(4) **business infrastructure**, serving the needs of industry and services.

This infrastructure is required for an efficient industry and services. In early stages of industrialisation, the distribution of such services is important in the industrialisation process. This being appreciated, many economic zones have been established to provide businesses of different types with requisite facilities from the outset. It should however be appreciated that the convenience for business is accompanied by some social costs.

(5) **settlement structure**, i.e. the distribution of the population between settlements of different sizes and types, current situation and trends; related to this is also the distribution of settlements over the territory; one important parameter is the remaining population in the rural areas, i.e. the villages and small towns.

The observed migration to the urban areas, and the large temporary and transient population in the coastal regions may over the longer term be assumed to be replaced with a more permanent settlement of the workforce required in the respective regions, on one hand, and industrialisation in the inland provinces, on the other. As an example, with improvements in transport infrastructure and higher wages, it will be possible for people to stay in the villages and commute to neighbouring towns and cities. With regard to the settlement structure, a range of alternatives may be imagined—from centralised, in which the larger cities proportionately increase most and smaller towns and villages decrease, at one end, and a decentralised model in which growth, proportionately, is stronger at the lower end of the size distribution. In between these two extremes, an alternative with stronger proportionate growth in the

middle part of the size distribution may be positioned.

(6) **transport and communications systems**, distribution, capacities, transport volumes—road, rail, sea and air transport, intra-urban and interurban transport; logistics systems.

Access to products and to markets is of crucial importance for industrial development. With modern systems of production, the importance of being linked into the world logistics systems is becoming even more pronounced. This may even be seen as the most crucial prerequisite for social and economic development, without which growth may be more or less severely constrained. Telecommunications are critically important for economic development, including the rural areas to link these fully into the market economy. Warehousing, container terminals, forwarding, insurance, banking, and other components of trade logistics need to be in place.

(7) other physical infrastructure, such as water and power supply, etc.

In a situation with rapid economic development, the provision of water and power, both of which involves projects with relatively long lead times, may become of critical importance for social and economic development.

#### 3. Scenarios

For the possible future distribution of population and settlements a great variety exists but at the same time there are certain patterns, historically given, which will change only gradually. Specifically, a large share of the population of the rural areas will remain in these areas for the foreseeable future, albeit in decreasing numbers related to the rural agricultural economy. For the purpose of this discussion, a limited number of scenarios are outlined, representing different approaches to the development of the settlement structure in future. The main characteristics of the scenarios are the following.

Scenario A—"centralised"— represents a trend extrapolation, based on the assumption that currently observable trends will continue. In this scenario, strong growth of the larger cities is assumed to continue, the larger towns to grow moderately, while smaller towns and villages will experience a gradual decrease in population. Transport will in the main be arranged by the use of an expanded road system (cars, buses, trucks, etc.) locally and regionally, and with road, rail and air over larger distances.

Scenario B—"balanced"— reflects an approach in which population growth is distributed between settlements in functional regions, which in themselves may be expanded with transport infrastructure, thereby reducing the need of expansion of the largest cities, and instead creating new job opportunities through improved access for the population in the rural areas, to the intermediate range of settlements.

Scenario C—"decentralised"— represents an approach in which growth in the central cities is discouraged in favour of growth in towns and villages. This would require that new industry be directed to such areas, as this will not otherwise occur spontaneously. The scenario has an obvious parallel with past development policies, which also included development of TVE's. In this case, a modification of the industrial and environment development policies is assumed, implying that earlier TVE development will continue on the basis of environmental sustainability.

#### 4. Discussion

# Overall development

The overall development according to the different scenarios is outlined above. The interaction betwe en regions and within regions will be commented upon here, as this constitutes one of the core issues of the seminar.

The scenarios differ in the basic assumption on the interaction within the regions centred on main nodes along the Jingjiu railway. In Scenario A it is assumed that nearly all development within the respective regions will take place in the largest city, while in Scenario C it is assumed that larger shares will be take place in the smaller towns and villages. Scenario B offers an intermediate form in which larger shares of growth will occur in intermediate settlements. Scenario B has the main characteristic of the linkages between settlements in the region in respect of transport, social and economic aspects. By attending to and developing the various linkages between settlements, companies and people, it should thereby be possible to strengthen regional interaction.

The relation between intra-regional interaction and inter-regional, however indirect, is also of interest. Basically, it is assumed that a well-developed interaction within a region will also tend to favour inter-regional interaction (which to some extent may be assumed to use the same or similar channels). Based on this, it may be said that in Scenario A one would expect, more than anything else, interaction between the major cities in the different regions. In Scenario C one would expect less interaction between the regions, among other things because industries would tend to be quite similar in types and sizes, and fewer benefits would result from co-operation over the regional boundaries. Scenario B represents a situation in which industrial development is based on a larger degree of co-operation, generally speaking, and opportunities related to co-operation with other regions would therefore tend be explored to a higher degree. In summary, the argument is that Scenario A is characterised by development in the larger cities, somewhat in isolation from the remainder of their respective regions, but with some co-operation with cities in other regions; in Scenario B co-operation and interaction dominates both within regions and between regions; and in Scenario C interaction is held back both within regions and between them as a result of more fragmented industrial and settlement structures.

A basic issue concerns the disadvantages of being a 'hinterland' in comparison with the coastal regions, i.e. how to make the production factors as a total attractive enough for requisite investments to be made. This will need to be further elaborated upon.

# **Environmental issues**

Environment impacts refer to air, water, solid waste and biodiversity. Conceptually, it is assumed that currently observed densities in the concerned areas are close to the ecological carrying capacity, in the main based on dissipation of pollutants, and without treatment plants. Above this threshold, different types of treatment become necessary before disposal. To the extent that this assumption is valid, this implies that the villages in their present form, and with current consumption patterns, in the main can continue according to present patterns, with only relatively marginal facilities for adequate environmental management. If they were to increase above the threshold, however, more than marginal facilities may be required, on one hand, while even with a continued decrease, some facilities will be required. In summary, this would imply that both decrease and increase would be accompanied by a less optimal quotient of environmental costs per capita. Concerning intermediate and large settlements, it is assumed that the larger settlements will have higher per capita costs for pollution

abatement

#### Socio-economic issues

One important issue concerns economic production, on one hand, and social considerations, on the other. The policy in China over the last two decades has been to prioritise economic development, and which has at many have had to find work far away from their home villages. Although it is not argued that the ambition of high. continued growth should be abandoned, it is nevertheless attractive to think that work might be obtained closer to home in the land-bound provinces of China, specifically in the regions in the Jingjiu railway corridor, thereby enabling smaller disruptions from a social point of view. It may be assumed that as economic growth proceeds, economic opportunities to absorb larger costs for transport will result in larger groups successively being in a position to afford spending more on work related travel which opens up new possibilities of settlement patterns. The industrial development policy reflected in Scenario A is characterised by a concentration of production to the larger cities, and concomitant growth in their population and is based on a continued migration from the villages. In Scenario C, production is assumed to be relatively more dispersed between settlements, resulting in a larger share being able to remain in their home village. In Scenario B, the relative concentration to intermediate settlements gives an opportunity to resettle in these, still within a shorter distance from the village or, alternatively, to stay in the villages and commute.

#### Social Infrastructure

The different scenarios presume different forms of social infrastructure, and are different in the efficiency of its use. Concentrated development in few settlements provides the opportunity of investment in few and large facilities, while dispersed settlements in small towns and villages presume smaller units of a different character. Inversely, certain types of facilities will only be available in certain numbers, implying a varying access to these, in particular less access for inhabitants in the villages. Access to educational facilities, in particular, are critically important, both to the concerned individuals, and to society at large.

#### **Transport Infrastructure & Utilities**

In principle, it is assumed that larger settlements would have difficulties in arranging development and infrastructure at an optimum cost and efficiency level; the reason for this is that infrastructure is assumed to have to deal with externalities in larger cities (e.g. requirements of more costly arrangements for sewerage disposal, and the arrangement of roads and public transport). On the other hand, the arrangement of such facilities in the smaller settlements is assumed to be less cost-effective as the result of lack of scale-economies, and dispersed service networks. In Scenario B it is assumed that scale-economies of environmentally adequate systems can be counted upon, while avoiding externalities, resulting from scale. One issue concerns inputs/outputs for these regions and the presumption of inadequate infrastructure in regions away from the coastal regions.

#### **Implementation**

The success of policies lies in their implementation; however good the intent, if it is not on the ground it does not count. In a rapid development process, this becomes even more pronounced. The policy of rapid economic growth favours a resource distribution that concentrates these in few locations with a view to maximise returns on investments. However, with this policy follows the apparent risk of idle capital, a phenomenon that may be seen in China today, e.g. in the economic zones.

#### 5. Tentative Summary Assessment

There are a number of policy related issues involved in the matter of sustainable development in the Jingjiu corridor. As such, it is therefore necessary that decisions be taken on a number of policy issues at different levels in China. The summary of a preliminary assessment presented here is therefore by necessity fraught with a number of uncertainties.

he comparison of the scenarios presented above is here made based on some key criteria, deemed to be of greater interest than others. It is assumed that economic efficiency will be judged to be of large importance in the continued development process; this means that there will be little interest in development that is less efficient in promotion of economic growth. Secondly, it is assumed that goals of improvements in the physical environment will be upheld, i.e. that deterioration of the environment is not acceptable, *inter alia* because this detracts from economic growth. Furthermore, it is assumed that there is an ambition to improve the social environment, i.e. that the objective is to reduce social hardship in the medium to long term. Social dislocations are experienced by the many temporary workers in China today, but it must be an objective to reduce the number of people having to live in this way.

The villages of China at present, at varying standards, accommodate more than 900 million people. The housing stock and service facilities in the villages represent considerable investments. These should not be abandoned in favour of movement to urban areas to a higher degree, or sooner, than necessary. The reasons for the movement from the villages specifically refer to the lack of employment opportunities creating a reasonable income, on one hand, and the lack of facilities and opportunities in the villages, generally. The establishment of TVE has for a number of years been a way of absorbing surplus labour living in the rural areas in near-by towns, and the question is whether such opportunities now have been exhausted or not. Development in the intermediate range of settlements would seem to be a way of avoiding unnecessary encroachment on agricultural land, on one hand, and of avoiding the externalities of the largest settlements, on the other.

In the near future, however, when both infrastructure supply and business services will remain relatively limited, it makes sense to concentrate investments in key centres. At a later stage, additional secondary cities may become involved in the industrialisation process with requisite establishment of additional infrastructure. The process of industrialisation and urbanisation which so far has moved people long distances from their homes in the villages to the coastal provinces should primarily be oriented towards the primary cities in the respective provinces, with a view to eventually enable each county to have at least one growth centre. Although implementation will be gradual, the overall settlement structure should be studied and planned for from the outset on a national and provincial level. This concerns *dynamic processes* that nevertheless need to have a *planned framework*—e.g. related to transport infrastructure, which cannot be developed in the short to medium term perspective only.

The conclusion accordingly is that further study be made of these dynamic processes, while establishing the planning framework, which needs to be comprehensive if it is to address major concerns of sustainability—economically, socially and environmentally—which lies at the heart of development.

# INDUSTRY POLICY AND REGIONAL DEVELOPMENT IN AND OPEN ECONOMY

Philippe R. Scholtes<sup>10</sup>

#### 1. Introduction

In September 1996, China's President inaugurated the Jingjiu railway link between Beijing and Kowloon. The 2,500 kms track runs through several of the poorer provinces of China, where it is expected to boost economic development. Bridging mainland China and Hong Kong Special Economic Zone and spanning across the country's successful eastern coast and its relatively rural Midwest, it illustrates by itself the diversity of the country's political economy, and is seen by scholars to offer an exciting ground for empirical studies.

Rapid manufacturing growth is seen in this context as a major vehicle of overall development, and the Government is gradually setting up a policy environment conducive to accelerated investment in the provinces along the railroad. This international seminar organized at an early stage of the policy-making process offers the opportunity for Chinese and foreign experts to review the critical issues at stake, and reduce thereby the risk of ill-conceived policies that could prove expensive to correct at a later stage.

# 2. Industry policy in a mixed economy

Governments can support in various ways the growth of the manufacturing sector and may intervene in the economy in two distinct ways:

- by directly supplying goods such as electricity, or services such as a Research and Development institute. This falls under the general heading of utilities and institutional support;
- by altering through targeted incentives the price system to encourage, or at times dissuade, particular categories of economic activities.

Furthermore, policy support can assume two forms:

- across-the-board functional interventions. They include, in general, the
  provision of a so-called enabling environment featuring adequate
  infrastructures, utilities, institutional support, banking, insurance and other
  business services and, in particular, a competitive market for industrysupporting services;
- selective interventions on the contrary target specific industries or segments of the economy.

The recourse to Government interventions particularly of a selective kind in the market warrants careful justification. Functional interventions are said to be 'market-friendly' in the sense that they basically circumvent market failures such as information gaps that prevent the spontaneous emergence of industry-related services. In addition, the proponents of the technological capabilities approach cite

Industry Policy and Private Sector Development Branch, United Nations Industrial Development Organization

empirical evidence from the development of East Asian countries to support the need for selective interventions. Technological deepening, they argue, is essential to manufacturing growth and a successful integration into the global market place. Yet it is a risky and costly endeavour, compounded by a punitively slow learning process. A pro-active industry policy through a mix of functional and selective measures can improve *inter alia* the domestic supply of supporting services and help create dynamic advantages in the manufacturing sector.

Heavy-handed Government interventions, however, can inhibit private ventures in the service activities necessary to support the growth of manufacturing. Through a collusive behaviour between public institutions and State-owned enterprises, they are liable to distorting the market mechanisms and bring about a net loss of resources in the economy. The process towards the formulation of an industry policy must assess the prevailing situation in this regard, identify existing constraints, weigh the *pros* and *cons* of alternative ways to circumvent those, and provide documented supply-side recommendations to strengthen the Government's support to manufacturing growth.

# 3. Quantitative techniques for industry policy design

Several tools are available to the public decision-maker engaged in policy design; they differ in terms of their objectives and focus, the assumptions they rest upon, and their formal complexity and data requirements. Such tools, or quantitative representations of economic situations basically fall under four categories, listed here by decreasing order of data-consistency and increasing order of theory-consistency:

- vector autoregression (VARs) or more generally, time series analysis explain
  the value of a variable at any point of time by its own history. This is purely
  data-consistent, as no theoretical paradigm is required to explain time
  patterns. VAR analysis provides a cost-effective means of developing
  accurate short-term univariate forecasts. Longer-term forecasts are not
  reliable, due to the limitations of a partial equilibrium setting;
- input-output (IO) tables and social accounting matrices (SAM) record flows of goods, services and incomes across sectors of the economy. They can be disaggregated to include upto several hundred industries, and their deterministic matrix form lends them to straightforward applications in measuring linkages and multiplier effects. As they generally rely on the assumption of fixed technical coefficients, and since furthermore their macroeconomic references are rather weak, they are not suitable for projections;
- macroeconomic models (MEM) display a set of simultaneous equations such as accounting identities and behavioural relationships. Recent developments, particularly in such fields as rational expectations or disequilibria induced by price rigidities, have considerably strengthened their theoretical foundations as well as practical relevance, and MEM today occupy the mainstream of economic models for policy evaluation;
- computable general equilibrium (CGE) models are firmly grounded on modern neo-classical economics. Their strong points rest with an explicit depiction of the interation between markets (e.g. goods, services, money, labour), of economic behaviour and of convergence mechanisms. Their dynamic properties are expressed in terms of a discrete sequence of static temporary equilibria, which makes them particularly appropriate for (i) static simulation of marginal disturbances around the equilibrium (such as a moderate tax or tariff

reform), and (ii) long-term projections beyond transitional oscillations and business cycles. While IO tables are measured and MEMs are estimated, CGE models are calibrated around near-equilibrium starting values by means of fixed-point algorithms.

# 4. Instruments of policy implementation

Quantitative tools for policy design are necessary to provide a rigourous background against which to assess the likely impact of alternative growth scenarios in the short, medium,- or long-term as well as to measure their consistency with China's Ninth Five-Year Plan and its longer-term goals to the horizon 2010. Yet they face technical difficulties when restricted to a particular region of a country. Furthermore as a somewhat academic approach, they partly obliterate the complexity of business life and industrial organization; to translate effectively into concrete policy measures, they must also, in a second step, mirror the reality of interest groups and the particular relationship between Government and industry.

Public authorities formulate an industry policy taking as given the micro-economic parameters of the system, while entrepreneurs adopt business strategies on the basis, inter alia, of their perception of the policy environment at a given point of time. Theoretically, market signals in a perfectly competitive economy would convey the necessary information to guide individual decisions to an efficient state, characterized by an optimal allocation of scarce resources. In real life, market failures of various kinds generally frustrate the mechanism, and warrant carefully designed corrections in the form of Government interventions. The setting thus becomes that of a noncooperative game between several interest groups encompassing Government, industrialists, banks, and a range of industry-related services.

A basic issue is the desirable scope of the Government's role in facilitating the process of adjustment to changing conditions of production and trade. A proactive industry policy must be grounded on the following considerations:

- while domestic economies become increasingly integrated in the global market place, the success of any manufacturing venture is critically dependent on the international competitiveness of firms;
- competitiveness is determined by a series of factors. Some of them rest under the control of the enterprise, some fall under the purview of external agents: other firms, business partners, providers of related services, and ultimately, the Government;
- thus any competitiveness-enhancing strategy takes the shape of a multi-agent decision-making process. Typically, the Government adopts an industry policy on the basis of its perception of opportunities and constraints facing the economy. The supply response, or the reaction of the firms to the policy signals, attempts to take advantage of the policy environment. In the process, new prospects and constraints emerge, calling for appropriate adjustments by the policy-maker, and so on. This iterative procedure is similar to a noncooperative, sequential game. The game is moreover said to be asymmetric in that the Government ('the Principal') typically enjoys an informational advantage over the firms ('the Agents');
- the outcome eventually tends to the formulation of mutually consistent policies and business plans to strengthen industrial competitiveness. In developing countries marked by weak organization levels and incomplete flows of

information, the procedure can be considerably improved by fostering convergence mechanisms between Government's and industry's strategic moves;

- the process is hindered by the resource mobilization capacity (RMC) of the country or region, that is, the existing constraints in terms, inter alia, of governance, skills, public and private finance;
- a way to alleviate the RMC constraint is to unleash the potential for capital inflows, by creating areas of comparative advantages to attract foreign investors. This calls for a combination of functional and selective interventions by the Government, in an attempt to allocate scarce domestic resources in an efficient manner.

As earlier indicated, the public authorities can support the manufacturing sector in two generic ways:

- through the provision, at favourable conditions, of goods such as electricity, a
  road network or the infrastructures of an industrial estate, or services such as
  those rendered by a training centre, a financial institution or a fire brigade.
  Note that these are examples of goods and services provided by the public
  sector, and not of public goods and services in the usual sense of the term.
  They are in most cases available indistinctly across the board, and therefore,
  fall under the category of functional interventions by the public authorities;
- by modifying the prevailing price system by means of subsidies or, on the contrary taxes. This mode of policy intervention is often far more targeted, or selective; in fine-tuning the fiscal pressure, the cost of capital or that of foreign exchange, governments can trigger massive swings in the allocation of resources and foster the emergence of some industries at the expense of others.

# 5. Industry policy with a regional focus: a methodological outline

The objective of industry policy in the context of the Jingjiu region is very specific indeed: it is a matter, for the public authority, to realize to their fullest extent the opportunities afforded by the new transportation corridor. This raises two classes of problems: first, the technical difficulties of operating at the level of a region when readily accessible data are mostly released at the aggregate, country-wide level. Secondly, when regional policies must be made consistent 腦n an economically sensible wayÄ with national endeavours. The latter aspect will be treated in Section 6 below.

With regard to the first point, the analysis must proceed along a sequence of steps:

- first, a review of the initial endowments of the region: natural resources, mineral and agricultural, and factors of production such as infrastructures, existing industrial capacities, a network of business services, and a workforce with a particular skill profile. The additional asset of the new transportation facility crossing the region will be reflected at this stage, as it strengthens the infrastructure stock and opens new opportunities for rapid and cheap transit of freight and passengers;
- second, an assessment of the objectives pursued by both the policy-makers

and the local business community. Policy-makers include local as well as central government authorities, whose development objectives might differ to a significant extent (see next Section);

 third, a realistic estimate of the Resource Mobilization Capacity of the region (see Section 4), which will constrain the decision space of the policy-makers. The region may wish for instance to emulate the Silicon Valley formula; yet with scant venture capital and a limited supply of highly-trained computer scientists, it is unlikely to succeed in the near future.

An industrial development strategy will aim at realizing the assets of the region towards the stated objectives, given the existing constraints. It will materialize through a series of actions undertaken by firms, as well as by public authorities. The set of actions undertaken by the public sector towards the specific objective of fostering manufacturing growth is referred to as 'industry policy'; thus an industry policy in that sense encompasses a wide array of instruments hinting at monetary, fiscal, trade, investment, or labour considerations. It is a game-theoretic definition far more comprehensive than the restrictive, although pervasive, interpretation of industry policy as 'targeting', or an attempt by the public decision-makers at 'picking the winners'.

To support a process of manufacturing growth fuelled by a substantial contribution of private firms and foreign investors, the public authorities must adopt a reactive attitude in their decision-making, and effectively respond to market signals if they are to gain the longest mileage out of their limited resources. Thus the analytical phase of policy design must build not only on a mechanical stock-taking of natural resources and other physical observations; it must also carefully assess on-going economic phenomena in production, trade and investment, elicit from those a dynamic map of the revealed and perceived comparative advantages of the region's, and endeavour to further strengthen or develop such advantages. Likewise, the operational phase of policy implementation must be made consistent with the prevailing industrial organization in the region, the market structure and the existence of interest groups with varying bargaining power.

## 6. Central vs regional policy-making

The growing appeal of regions, in both developing and industrialized countries, to circumscribe development programmes may seem paradoxical at a time of rapid globalization of economic activities. The proponents of the 'regional approach' argue that, if a larger economic space such as that overseen by WTO a priori means greater opportunities, transaction costs on the contrary are lower when the firms are already linked in a tight web of economic, social and cultural affinities by virtue of their geographical vicinity. In particular, the access cost of strategic information on suppliers, clients or competitors can be markedly reduced; similarly, local governments will benefit from a stronger interaction with the local industry and a sharper perception of the latter's expectations and needs.

On the other hand, the set of business opportunities is inevitably reduced in a smaller economic space. Indeed a market, that is, a trading place where agents exchange goods, services or factors and create in the process economic value, necessarily takes more than one player; it mobilizes an arbitrary number k of players, out of a total population n. The maximum number of coalitions with k members in a population n is given by n!/k!.(n-k)! which obviously decreases with n. Hence the benefit of an

In game-theoretic parlance, the characteristic function 印(S): S類(S)幹 that assigns to each

enlarged economic space such as that promoted by the conclusive round of GATT ... and conversely, the risk of missing out opportunities in the reduced setting of a particular region.

Furthermore when engaging in large-scale infrastructure projects such as the Jingjiu railway, an orverriding objective of the central Government's is to spread more evenly, through accelerated growth in targeted regions, the benefits of economic development in the country. Thus both allocative and distributive efficiency objectives are sought. The extent to which both objectives can be met depends however on the relationship between central and local governments, that is, on the degree of decision-making autonomy enjoyed by the regions. Countries widely differ on this score; the Chinese situation for one is marked by a large degree of decentralization in the traditional functions of governance. Whether or not this is conducive to the traditional redistributive role of the State is a subject that has recently drawn the attention of researchers in economic and social sciences; it certainly is, for China, a matter of critical relevance today.

Governments at both central and local level engage in income redistribution through internal transfers: local governments tax the rich to subsidize the poorer of their citizens, while the central government levies a tax premium on richer provinces to promote development and alleviate social inequities in less advanced regions. Ideally, a fully-informed Centre would be best suited to monitor income transfers, both within and across provinces. In practice however, the Centre has only partial information of the income patterns in the provinces, often based on its observation of the aggregate redistributive efforts within these provinces. For instance, a richer province will spend relatively less on welfare programmes and unemployment benefits. Observing these internal transfers, the Centre will infer that the province is relatively richer than others in the country, and will seek from it a more generous contribution to the nation-wide redistributive programmes. Thus the richer province has a clear incentive to increase its internal welfare transfers, as it will in process reduce its tax liabilities vis-a-vis the Centre. The outcome is ultimately of a second-best nature from the Centre's viewpoint, since external transfers \( \mathbb{R}\) cross provinces\( \mathbb{A}\) will be sub-optimal.

In conclusion, both efficiency and equity considerations plead for a well-defined relationship between central and local governments, and a precise distribution of prerogatives amongst them.

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#### REGIONAL DEVELOPMENT AND DECENTRALIZATION

# Georgina Wilde<sup>12</sup>

#### 1. Decentralisation in context

Decentralisation in its various guises: devolution or delegation; intrinsic or instrumental. Why decentralisation is regarded as beneficial: less government; greater accountability, etc. This is seen as particularly relevant to provision of certain public services and of some kinds of infrastructure, although there is not much clear evidence that allows generalisation. The optimal mix is highly country-specific because decentralisation is a matter of politics.

There is a body of thought that argues that decentralisation, especially fiscal decentralisation, is inappropriate in developing economies undergoing rapid social and economic change.

Which are the most decentralised countries? The USA; India, Canada, Australia, Germany, Russia. Brazil

### 2. A working typology of decentralisation

Fiscal: revenue raising and spending powers

Policy: economic; social; crime Planning: devising overall strategies

Resource mobilisation: ability to borrow, domestically and internationally Regional: ability to establish supra-provincial but sub-national linkages

Clarity: the importance of clearly defined powers and responsibilities at each level Any evidence; eg in terms of growth of GDP/head that decentralisation promoted factor growth?

faster growth?

What about equity? Any evidence that decentralisation may decrease equity by increasing divergencies between and within subnational divisions. The role of the private sector.

#### 3. How does China fit?

#### Decentralisation of investment decisions

By some measures, China is decentralised to a considerable extent: geography; diversity of resource and factor endowments; difficulty of communications have traditionally meant that the unitary state has in fact been far from uniform. After 1949 there was a centralising thrust on the Soviet model but soon followed by the Third front policies which created an autarkic economic model and encouraged devolution of economic initiatives, especially during the Cultural Revolution period.

Since the reform era began there has been a tendency to delegate fiscal powers and responsibilities while the devolved character of economic decision-making has been reinforced by competition for capital, foreign and domestic. At the same time there has been, if anything, an attempt to strengthen political control from the centre,

The Economist Intelligence Unit, London, UK

especially to reinforce the overall macroeconomic policy setting powers of the central government. Since 1994 the central government has been seeking to recoup some resource- mobilisation powers in the form of a larger share of the tax take. This has been only moderately successful. Recentralisation is very difficult.

A comparison of the extent and nature of decentralisation in China with the situation in other large countries shows that, while sub-national units do not have the de facto or de jure political powers that are exercised by the states in the USA or India, they do have a lot of de facto resource mobilisation and economic decision-making powers that make them important economic players in a sense not found in comparable countries. The relationship between local governments and enterprises, whatever their formal ownership structure, is particularly close. Governments have taken on some of the characteristics of enterprises.

#### Control over the financial sector

At the same time the central government in China has maintained, and to an extent increased, its control over capital. Although it has allowed sub-national units to seek direct foreign investment flows and delegated some discretion over the privileges afforded to foreign investment, the foreign investment regime is due to be brought into line with the domestic regime. The right to seek capital other than equity, ie to borrow, has not been delegated to provincial or sub-provincial levels to any significant degree for fear of the destabilising consequences.

Summarise the current state of decentralisation/centralisation again, placing China on a comparative grid.

### 4. Strengths and weaknesses of the current configuration

- (1) Decentralisation has helped to foster rapid growth- unleashing the energies of local level enterprises and local governments;
- (2) The maintenance of broad macro-economic stability as the investment hunger that reform has unleashed has been contained by the ability of the central government to limit investment;
- (3) Foreign and domestic debt levels have been kept under control because the central government has not delegated the right to issue debt;
- (4) But the gap between the rich eastern seaboard and third world China has widened because the redistributory powers of the centre have diminished;
- (5) The persistence of various rigidities, including administrative controls on certain prices, distorts relative prices and economic returns;
- (6) The fact that the domestic financial market remains regulated and that capital markets are still underdeveloped disadvantages those sectors which are not favoured in credit allocation and influences the use of savings in ways that may work against savers in less prosperous areas;
- (7) Those provinces and regions which comply with the directives of the central government, eg on restraining investment, are not necessarily rewarded;
- (8) The freedom which many regions have enjoyed to pursue development has encouraged an export orientation which has not been accompanied by a commensurate opening of the domestic market, where barriers still exist;
- (9) It can be argued that decentralisation, especially insofar as it has limited the redistributionary powers of both national and provincial governments, has exacerbated not only gaps between provinces and regions, but also within provinces. These opportunity gaps are particularly difficult for the central government to address;
- (11) Decentralisation has certainly exacerbated serious environmental pressures

- that have resulted from very rapid growth and investment in industrial projects at the local level, often small-scale and wasteful;
- (12) Decentralisation has also, as noted above, promoted the creation of thousands of small scale enterprises-TVEs- which produce inefficiently and require protection from local government;
- (13) Successful resource mobilisation from the centre remains a reality in China, because the central government remains firmly in control of mega-projects. With its lengthy gestation period, its large-scale resource-mobilisation requirements and complex coordination efforts the completion within four years of the Jing-Jiu railway, spanning seven provinces and directly affecting the lives of 200m who live alongside it, can be seen an example, par excellence, of the capacity of a central government to push through an important project to tight deadlines. Other, very large scale projects, most notably the Three Gorges dam currently underway, testify to the ability of the state to mobilise resources on a very large scale.

### 5. The current goals

The above suggests that the current mix between central and provincial/ local empowerment has been is effective. With the proviso that the outcome of the 1994 tax reforms is still unclear, it can be seen that the central government is now able to promote rapid growth without impairing macroeconomic stability. The successful soft landing engineered since mid 1993, chiefly by means of a tight monetary policy, demonstrated this.

But the goals set out in the current, ninth five year plan and the strategic aims for the next century may not be consistent with the maintenance of current arrangements. Among the most important commitments is to draw investment and growth into the interior provinces which have been left behind since reform began and whose citizens and governments are calling for greater opportunities. The central government sees providing these as being a key priority.

#### More centralisation

Debate is now proceeding about the best way of pursuing this goal. On the one hand it might require a further recentralisation of the fiscal powers of the central government. That would be difficult to achieve, especially if it was considered insufficient to rely, as did the reforms of 1994, on a new way of sharing an incremental revenue, but required taking funds from surplus provinces (ie reducing their revenues) in order to redistribute to poor ones.

### Or more devolution

Another way of realising the aim of bringing more investment into the interior could be a further devolution of powers. If the provinces themselves were allowed to raise money more readily, they would be in a position to invest directly to promote growth and seek investment from outside. Allowing the interior provinces the leeway to offer more attractive investment regimes is another possibility. Both these options are likely to command some support. There are signs, with the recent issue of bonds to finance provincial infrastructure projects, that the first is already finding favour. The second, although against the thrust of current policy, which favours a level playing field, will probably be necessary if significant sums are to be drawn inland. But the central government is wary of the possibly inflationary effects of "blind investment" and anxious to control the rate of growth of external debt. It is also cautious about liberalising the domestic financial markets, fearing instability and excessive speculation.

### 6. Interprovincial linkages

There are many who argue that the best way to spread growth inland is to encourage the development of cooperative ties and investment and trade links between provinces and regions where capital is comparatively abundant and those where it is not. Many would argue that the central government should play no direct role in this process. There are examples of groups of provinces collaborating to seek foreign investment and trade links- the southwest and northeast- without the intermedation of the centre.

Such groupings and linkages, if they flourish on the basis of comparative advantage, would constitute a new layer in the administrative and economic hierarchy and the central government might regard them with some suspicion. The recent decision to split Chongqing municipality from Sichuan province could be seen in this context.

### 7. Infrastructure provision and management

In China as elsewhere in Asia infrastructure needs are very large, and provision is inadequate. Unless addressed, these needs are bound to impinge on growth prospects in Asian countries. The Chinese government's ability rapidly to mobilise national resources to address urgent infrastructure needs can be seen as an advantage that few other Asian governments- indeed few governments at all-possess. Bringing infrastructure, especially transport, to the underdeveloped interior, involves projects on a scale that are best carried out by a central government.

Management of the effects of such projects is a complicated issue. While there is no doubt that the Jingjiu railway will bring enormous benefits to those who access it, there are problems.

Like the Indian railway system, the Chinese system is still heavily geared to the transport of coal and the prices of freight transport do not provide an adequate return. These prices are still centrally determined and there may be an argument for local variation. Compare railway management in other countries, especially pricing policy. The whole line will come under the authority of the Ministry Railways, but it might be appropriate to give it some autonomy, eg on prices. It might also be appropriate to create a grouping, composed of representatives of the areas affected, to oversee the investment that arises as a result of the railway. This would only be effective if it had the authority to adjudicate the disputes that are bound to erupt. Many entrenched interests would oppose this.

There is also the risk of an outbreak of excessive and wasteful investment by localities along the railway line, and of competition for foreign investment. Managing this issue is complicated and the reluctance of the central government to relax its controls over liquidity in general and to open up the domestic financial markets is related to the fear of another outbreak of investment hunger.

#### 8. Conclusions

Decentralisation clearly has a positive role to play in China, but there is a need to adjust the current configuration and to define clearly the roles and responsibilities of economic players. This is part of the process of movement towards the market that is occurring. There is an argument that the central government should concentrate its efforts on resource mobilisation. This may in the short term require the balance,

especially in the fiscal sphere, to tilt back towards central control. Clarity and the establishment of a hard budget constraint are important. The current combination of devolved economic decision-making combined and a highly unevolved financial sector, is not favourable to narrowing the gap between developed and Third World China.

# RELATIONSHIP BETWEEN DEVELOPMENT OF INFRASTRUCTURE AND ECONOMIC/SOCIAL DEVELOPMENT: EXPERIENCE OF KOREA AND TAIWAN(CHINA)

William Reinfeld<sup>13</sup>

#### 1. Introduction

The Jingjiu railway link between Beijing and Kowloon is expected to have significant impact on economic and social development along its corridor. In planning for this objective, China should consider the experiences of Korea and Taiwan(China), whose rapid development during the period from the early 1960s to the present offer many valuable lessons – both positive and negative.

A study, by the present author, investigated the historical developments in Korea and Taiwan(China) and drew some noteworthy conclusions. <sup>14</sup> The study examined policy and institutional factors concerning infrastructure development and operations; the importance of liberalization and private sector involvement in delivery of services; and the relationship between the level, rate and form of finance in the development of infrastructure in these two economies.

### 2. Background

During the earlier periods of Korea's and Taiwan (China)'s economic development, i.e., 1960s to early 1980s, infrastructure development served as an integral part of the strategies aimed at meeting specific economic and social objectives (usually indicated by the themes of the National Plans). At first, the most important goals were related to the development of productive economies. However, eventually, it became apparent that infrastructure was also badly needed to fulfill social development goals (e.g., mass transit, safe drinking water and clean air). Other goals which infrastructure investments served to support included regional development and development of industries related directly to infrastructure (e.g., construction and equipment). Often, when there was a complexity of goals to be served, this created conflicts of priorities which tended either to slow down the decision-making process regarding new projects or overload existing projects with too many objectives — which tended to be counter-productive.

The goal of regional development, which is of interest here, was certainly an important focus of many of the earlier infrastructure projects and programs in Korea and Taiwan (China). Since they were both rural economies until the 1960s, their economic resource bases were distributed largely throughout the rural area. However, as industrialization began to take off, the conditions were such that Taiwan (China) was far better positioned to utilize its resources (principally, labor)

more cost effectively than Korea. Consequently, Korea experienced a gap between urban and rural incomes, which Taiwan (China) did not have and which became a major concern during Korea's rapid development.

Korea attempted to narrow the rural-urban gap through numerous policy and project

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The study of "Infrastructure and Its Relation to Economic Development: The Cases of Korea and Taiwan(China)," was undertaken in 1994 by William Reinfeld under a contract with the World Bank.

initiatives. However, most of them proved insufficient to deal with the core of the problem. The New Village (or Saemaul) Movement -- initiated in 1971 to improve the living conditions in rural areas through infrastructure improvements -- also had limited success and showed that satisfying infrastructure requirements alone was not enough to achieve broader objectives. Although some workers, including urban workers, were motivated by the incentives to move to the vicinity of rural factories, very few ended up commuting to those factories.

The reasons for the policies' failure are not fully known, but some have speculated that, "they probably have to do with transportation problems in a country more highly centralized than Taiwan(China), with much poorer roads, inadequate bus transportation, a climate that prevented commuting by motorcycle or bicycle during much of the year, and having frequent curfews after dark." [World Bank 1992, p.9] The policies also failed to slow rural-urban migration, which added to the already overburdened infrastructure demands in the cities.

The situation in Taiwan(China) was quite different.<sup>15</sup> Aside from topographical characteristics, which caused population centers and arable land to be concentrated in closely contiguous regions, the principal factors responsible for Taiwan's ability to follow this pattern of development were related to how its infrastructure had been developed.

To begin with, the excellent road and rail network inherited from the Japanese period was not only maintained but continuously improved. It is estimated that the Japanese allocated 45 - 60 percent of their fixed capital expenditures for Taiwan to develop transportation projects. [Ho 1975] From 1920 to 1940, the length of railways in Taiwan increased from 637 km to 907 km, and roadways increased from 3,553 km to 12,076 km. Also noteworthy was the rapid increase in paved rural roads.

Another important factor was the effective way in which the internal transport network was interconnected with the main ports of Kaohsiung, Keelung, and Hualien. In fact, the island's two main ports at Keelung and Kaohsiung were connected by rail as early as 1908. This allowed imported raw materials to be easily shipped to factories in rural areas and exports to be easily brought to the ports. The road configuration also made it relatively easy to draw on the large rural-based labor force for employment in the port or urban areas. The roads and distances were such that rural workers could easily commute to the factory by bicycle and keep their families on the farm.

The development of Export Processing Zones (EPZs), beginning in 1965, also was an important factor leading to sound regional development. These zones, being relatively easy to establish at any location, were built in the port cities and quickly brought industry to those areas.

Finally, an active program of rural electrification and policy of maintaining equality between urban and rural power rates, as well as fuel prices, avoided providing additional advantages to industries locating in urban areas. Through the 1960s, the government increasingly invested in rural industrial estates, providing the essential physical overhead for private industry. Prior to 1966, the government had built 17

Ranis points out that a key factor responsible for Taiwan's successful industrialization in the early stages was its relatively dispersed rural character. For example, the proportion of industrial establishments in the five largest cities was only 34 percent in 1951 and remained virtually unchanged by 1971. The proportion of persons employed in manufacturing in the cities actually declined to 37 percent from 43 percent, between 1956 and 1966. This particular spatial characteristic placed less pressure on urban centers, allowed labor-intensive industries to draw on the large rural population, and avoided deterioration of the distribution of income during the period of rapid industrialization. [Ranis 1979, p.223-30]

such districts, providing basic infrastructure and then selling space to private industry. 16

Overall, the infrastructure development programs in Korea and Taiwan(China) did not have a satisfactory balance between projects that were aimed at economic goals and those which were aimed at social goals. Con equently, the levels of social overhead capital (SOC) in Korea and Taiwan(China) may be satisfactory, when compared to those of other developing economies, but they are not good when compared to those in countries that are fully developed or even ones that are not in the top group, but which had longer periods to reach their present level of development.<sup>17</sup>

This relative inadequacy stems from several reasons. To begin with, investment in SOC in Korea and Taiwan(China), over the period during which rapid economic development occurred, was not particularly high. In comparison to other countries during similar stages of development, investments in infrastructure during the period of early 1960s to late 1980s were surprisingly low. Yet, they were generally sufficient to avoid critical bottlenecks. When infrastructure development fell behind, the economies seemed to avoid major disruptions while the deficiencies were corrected. Second, the cost of adding SOC has risen much faster than any price index (especially due to land prices) and the associated problems are becoming increasingly difficult to overcome. Third, because the SOC in Korea and Taiwan(China) was developed over a relatively short period and was often in response to pressing or near-term needs it is more uneven in quality, coverage, and distribution than in other countries which are at similar per capita income levels. Finally, in both cases, economic, as opposed to social objectives, were the primary motives for the investments during most of this period and, hence, the two are noticeably out of line with each other. In order to avoid the two objectives from growing too far apart, more attention needs to be given to social goals early in the development cycle.18

# 3. Key Success Factors

The study found that successful infrastructure development was, indeed, very important in supporting the economic initiatives that led to the successful industrialization of Korea and Taiwan(China). The key success factors that enabled them to achieve these accomplishments can be divided into two groups: those which could be duplicated and those which cannot. Among those which can serve as models for others are the following:

Focus and priorities. The successful relationships between infrastructure and

The manner in which infrastructure development was similarly aimed at supporting the goal of regional development as well as other broader social and economic goals in Malaysia is described in *Infrastructure In The Economic Development of Malaysia*. [Naidu 1994]

The concept of "satisfactory", in this case, is largely subjective. However, it can be gauged by public sentiment. In both Korea and Taiwan(China), the public appears to be greatly dissatisfied with the lack of progress in development of social-related infrastructure.

It is difficult to measure the extent to which infrastructure meets social objectives, except in a most rudimentary way, as standards are highly subjective and depend heavily on the preferences of society. For instance, the level of air pollution or traffic congestion can be measured and assigned a cost. However, we cannot assign a universal standard to the level society will tolerate. Nevertheless, there are proxies which give clues about an acceptable gap between actual and expected levels of social satisfaction from infrastructure. These might include changes in the rate of outmigration of people and capital. As a society develops greater political sophistication and democratic systems, as Korea and Taiwan(China) are, the voice of the people will be heard more directly, through elected officials, opinion poles, and lobbying. From measures such as these, we can see that the people of Korea and Taiwan(China) are not satisfied with the level of social development associated with infrastructure development.

economic development in Korea and Taiwan(China) were, in large part, due to the fact that their infrastructure investments were sharply focused on the primary objective of supporting and enhancing economic production, which itself had well-defined areas of priorities. It was only when competing or conflicting goals (e.g., social development) or too many indirect economic goals, without priorities, (e.g., use of infrastructure projects to build up indigenous industries) were pursued, that investments in infrastructure began to be seriously delayed.

- Coordination and strong leadership. The ability of Korea and Taiwan(China) to
  install the infrastructure with which their economies could perform so well was,
  in large part, the result of coordination of efforts and resources among
  relevant institutions, as well as strong leadership that foresaw the relationship
  between infrastructure and specific economic goals. While there were periods
  and examples in which coordination was lacking, the greatest successes were
  achieved when the efforts of all the relevant players were in unison.
- Balanced rural and urban development. This balance is particularly important during the early periods of industrialization. The contrast in approaches taken by Korea and Taiwan(China) offers good lessons on how to achieve more balanced development. Taiwan(China) already had some rural infrastructure in place when they began their economic development thrust in the late-1950s. They supplemented what they had with additional infrastructure and appropriate policies to encourage small agro-industries to evolve around the available resources. This minimized the urban-rural gap, held down the "rush" of people to urban areas, and thereby achieved a more balanced regional development.

Korea, on the other hand, was unable to develop a balanced strategy. Their approach was to build up rural infrastructure and housing in hopes of luring urban population and industries to the rural areas. However, insufficient attention was given to tailoring the infrastructure and policies to fit the needs of the population already in those areas.

Among the factors that were important to successful development in Korea and Taiwan(China) which cannot be duplicated, are,

- Relatively solid infrastructure bases to start with, as legacies of the Japanese occupations in both places.
- Financial and technical support, largely through aid and development banks, for rebuilding and modernizing their infrastructure after World War II.
- Willingness and flexibility of the people to "make do" with the infrastructure they had and to not let shortfalls disrupt their quest for greater economic prosperity. This was one of the key reasons why the strategy of allowing infrastructure to lag development did not noticeably disrupt progress. As people grew significantly more prosperous, there was not much opposition to foregoing comforts associated with the improved economic well-being.

#### 4. Lessons to be Learned

Several important lessons can be drawn for other economies from the experiences of Korea and Taiwan (China). Interestingly, the most valuable lessons can be found by considering the problems and challenges these two economies now face, as a consequence of past decisions and rapidly changing characteristics associated with infrastructure. Among the important lessons are the following:

The private sector should play a role in infrastructure development and

operation -- not just because of the need to share the escalating costs, but also because in many cases the private sector is more capable of delivering the appropriate services in an economic manner. More important, however, the environment within which infrastructure is to be developed and operated must be liberalized in order to encourage the private sector to provide financing and knowhow, and to encourage effective decision-making and performance. Merely privatizing, without liberalizing, as Korea has done, or partially liberalizing, as Taiwan(China) has done, is insufficient.

- While liberalization and private sector involvement are necessary, governments should not abandon their role as coordinators and facilitators of infrastructure development nor allow it to be weakened, as Korea and Taiwan(China) have. This is an important institutional factor in ensuring that all the efforts that go into creating an effective infrastructure will be aimed at the goals that reflect society's needs and wants and be in sync with other developments. This may require restructuring the institutions that are now charged with responsibilities of planning and coordination. They must be given high-level authority and be armed with good information bases and highly competent people, in order to be credible and effective.
- Related to the importance of government taking an active role in coordinating and facilitating infrastructure development is the requirement that the decision and policy makers spell out clear and consistent goals which are widely known and accepted. Decisions must be rationally made and defendable in terms of social and economic net benefits. In the cases of Korea and Taiwan(China), for example, during their early periods of development they decided on productivity/output gains rather than social/well-being gains. Now, they recognize the shortcomings in their wealth and are pressing for more and better quality social overhead capital (SOC). There are also choices about which services should be liberalized and privatized and, even if there is agreement as to which should be, the question remains as to which ones should come first. Finally, there is a question of prioritizing among projects. Failure to make rational decisions as to which ones to begin with has been a principal cause of the present bottlenecks. people, in order to be credible and effective.
- Projects should be subjected to sound social/economic benefit-cost analysis-particularly mega projects such as the Jingjiu railway. In Korea and Taiwan (China), where much attention is being focused on building high-speed railroads, the arguments are largely centered around purely financial considerations, e.g., how much the public sector can afford from their budget, what the financial returns would be, and what to do in order to attract private sector financing. Not only are these arguments greatly delaying key decisions, they may ultimately lead to the wrong conclusions for the wrong reasons, failing to choose the options that are in the best long-term public interest. In order to avoid that from happening, the real net benefits of these projects must be evaluated, considering shadow prices of the resources employed, the total impact on national output, and other socio-economic criteria.
- Another area in which broader social/economic implications of infrastructure projects must be considered concerns the way in which projects are structured. Often they are put together to "enhance" the benefits with secondary goals. For example, in some cases in Korea and Taiwan (China) foreign contractors were excluded from bidding, or placed at considerable disadvantage in favor of local contractors, who were less qualified. The harmful consequences of such behavior should be easy to see. Furthermore, this kind of behavior would not be allowed under rules of the WTO.
- Finally, taking an overly conservative approach to investment in infrastructure

development can have serious long-term implications. While economic success in Korea and Taiwan (China) was achieved with the minimum level of infrastructure support -- just enough to satisfy near-term demand -- it has had several very unfortunate consequences. For one, whereas Korea and Taiwan (China) now have economic indicators which place them in a group of nearly-or fully-industrialized societies, the extent and quality of their social overhead capital (SOC) is considerably below that of other societies whose economic indicators are about the same as theirs, such as Ireland, Israel, Seoul, Singapore, and Spain.

In conclusion, it is unlikely that these two economies would have reached their present level of GNP as quickly as they did had they departed earlier from the course they took and given greater priority to social-oriented infrastructure. On the other hand, it is very likely that had they switched earlier and maintained a reasonably high level of gross-fixed capital formation (GFCF) aimed at social development, the two goals (economic and social) would not be as far apart and the alternatives between which they must now choose would not be as much in conflict with each other.

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# A STUDY ON ISSUES IN ECONOMIC DEVELOPMENT IN SHANGQIU

# Wang Qingchen Shangqiu Municipal Government

Shangqiu is located in the eastern part of Henan Province, right on the conjunction spot of Henan Province, Shandong Province, Jiangsu Province and Anhui Province-with Shandong in its north, Anhui in its south and Jiangsu in its east. It consists of 6 counties, 1 municipality and 2 districts. The total land area is 10.7 thousand square kilometers. By the end of 1996, its population was 7.77 million. In 1996, its GNP was RMB20.61 billion, increasing at an average annual rate of 15.4% compared to 1990; fiscal revenue was RMB910 million, increasing 23.4% annually; bank deposits of citizens was RMB7.59 billion, increasing 31.9% annually; net per capita income of the farmers was RMB1,348, increasing 22.7% per year. These growth rates are higher than the mean level in Henan Province.

### I. Analyses and assessments of factors of economic development in Shangqiu

Shangqiu has many advantages in economic development and the great opportunities for faster development are emerging:

i. Good communication conditions

Shangqiu is an important hub of communication in the country, and after the completion of the Jingjiu Railroad, Shangqiu will become the meeting point of the Longhai Railroad and Jingjiu Railroad-the former is China's longest railway running in east-west direction and the later is the longest in north-south direction. Shangqiu is also the meeting point of two national roads-No. 105 connecting Beijing and Zhuhai, No. 310 connecting Lianyungang and Tianshui.

Shangqiu is, compared to other cities in Henan Province, the nearest city to seaports. The distance towards Lianyungang, the east start of the Euro-Asian Continental Bridge, is only 300 kilometers. To its north is the Beijing-Tianjin region, to its southeast is Shanghai-Ningbo region and to its south are Wuhan, Shenzhen and Hong Kong. Around it are the more developed areas along Jingguang Railroad and Jinghu Railroad, and the coastal economic zones.

#### ii. Abundant resources

- i.) Coal reserves. Yongxia Coal Field is one of the top six high quality anthracite bases in China. Within 1,000 square kilometers land area, the coal reserves is about 10 billion tons. A huge coal production complex with an annual output of 10 million tons is under construction. The current capacity has already reached 4 million tons, and each year it produces more than 2 million tons of high quality anthracite.
- ii.) Agricultural resources. The soil is rich, and is suitable for production of wheat, maize, soybean, peanut, cotton, apple, pear and grape. It is also famous for paulownia planting. Shangqiu belongs to the Yellow River-Huaihe River-Haihe River region which is the national strategic agricultural development region. It has 8 commercial grain production

- bases, 2 commercial cotton production bases and 8 goat leather production bases. It is the most important production base of cereal and oil, cotton and husbandry products in Henan Province and is also the giant producer of grains, cotton, goat leather and high quality paulownia timber in the whole country.
- iii.) Abundant and inexpensive labor resources. Although a lower cost of labor often indicates an underdeveloped economy, it is also an important factor for foreign investors to earn more revenue. Because of its important position in the region and good condition in communication, Shangqiu has advantages to coastal cities in attracting inland labor. Moreover, dismissing of job seekers is more convenient in Shangqiu and this also contributes to a better nation-wide transportation condition.

## iii. Long history and culture

Shangqiu is one of these areas that hosted the earliest Chinese civilization. Its long history and numerous historical interests helped it to be nominated as the national historical and cultural city by the State Council in 1986. The Chinese culture formed in Shang Dynasty. The earliest Chinese character system formed in Shang Dynasty. Styles of clothes and apparels of the Shang Dynasty had been lasted for nearly 3,000 years till Ming Dynasty without fundamental changes. Shangqiu had always been an important city. The family of Confucius and Zhuanzi were originated in Shangqiu. Historical remaining in Shangqiu include: Yubotai, the place where Yubo carried out his astronomy research some 5,000 years ago; Yiyin Tomb; Huizi Tomb; Wenyatai, where Confucius gave lectures; Royal tomb of Liang, Xihan Dynasty, the biggest ever discovered; Guidefu City, one of the four places in China that keeps whole ancient city walls

iv. Shangqiu possesses an important position in the regional structure of national economy, and has many state and provincial favors.

Firstly, Shangqiu is on the national priority list of economic development in the ninth five-year plan period and in the future 15 years. As stipulated in "Recommendations by the central committee of the Chinese Communist Party on formulating the ninth five-year plan and 2010 development objectives of the national economic and social development", China is going to establish five economic belts: represented by Shanghai, the economic belt of Yangzi River Delta and regions along the river; represented by the Pearl River Delta and southeast part of Fujian Province, the southeast coastal economic zone; represented by the Liaodong Peninsula, Shandong Peninsula and Beijing-Tianjin-Hebei, the Pan-Buohai Sea economic circle; and economic belts covering areas along the Euro-Asian continental bridge and Jingjiu Railroad. Shangqiu is in the meeting point of two economic belts along the Euro-Asian continental bridge and Jingjiu Railroad.

Secondly, Shangqiu has been given policy favors by the state and provincial government. Shangqiu is the national experiment district of village reform and is also the provincial experiment district of integrated reform. Therefore, it has been authorized to go faster in economic reform.

Thirdly, Shangqiu is the prioritized area of development in Henan Province in the next

fifteen years. As described in the Henan ninth five-year plan of economic and social development and framework for development objects to 2010, Henan has decided to grasp the opportunity provided by the construction of the Jingjiu Railroad; to speedup the progress of development and reform in areas along the Jingjiu Railroad, especially in Shangqiu; to develop production and processing bases for agricultural production and side-products; to develop Yongcheng energy base; and to promote economic development in east and southeast part of Henan Province. According to these plans, the provincial will help Shangqiu in constructing three main projects: a.) investment of RMB260 million for construction and refitting of the project in Xinsanyizhai to divert water from Yellow River and its affiliated facilities; b.) investment of RMB3 billion to build highway from Kaifeng to Shangqiu; c.) investment of more than RMB8 billion to set up Yongcheng power plant which will have a capacity of 4x300 thousand kilowatt.

### v. Benign investment environment.

When construction of the Jingjiu Railroad has only been started, Shangqiu municipal government had already sense the great opportunity provided by the construction of Jingjiu Railroad for development of Shangqiu. In view of this, in 1994, based on in-depth study of the municipal government and the assessment of high profile experts in the country, the municipal government decided to increase the framework the city area with more functionality integrated, so that Shangqiu could be upgraded into a regional center. In accordance to this strategy, intensive effort in city infrastructure construction has been made in recent years.

The first step was to increase the landmark of the city. From 1994 to 1995, the second ring road has been built, and In 1996, RMB20 million has been added for construction of a 4.2 kilometers outlet in the west side and for installation of light system and decorations. Other projects include: 6 kilometers section of Kaixuan Road, the main road of the city, has been broadened; water pipe has been extended for 3,500 meters; 75 thousand square meters of newly paved roads and pedestrians; 96 thousand of newly planted trees and flowers; 177 solid waste transportation terminals and public restroom been built or reinstalled. And under the city revitalization project, with a total investment of RMB420 million, 150 thousand square meters of old buildings have been removed and 650 thousand square meters of business and residential buildings have been built, and the outlooks of this old city has thus been greatly improved.

The implementation of plant trees in urban area started in 1997. Aiming at packing the city into a nationally well-known garden-like city in 3 years time, the city has already planted 214 thousand trees and 71.4 square meters of grass and has cleaned 2,000 mu of lake area.

The municipal government has also attached great importance to energy, postal and telecommunication and water supply projects. Contributed by many newly installed or enlarged electricity exchange stations, the current capacity of daily electricity supply has already reached 4 million kilowatt-hour, and all rural villages are wired. Moreover, the city is already in the position to carry out its plan of building Yongcheng Power Plant which will

have a capacity of 4x300 thousand kilowatt and Shangqiu Power Plant with a capacity of 2x125 thousand kilowatt. An on-going water plant construction project will add 110 thousand tons to its current 240 thousand tons urban water supply capacity and the city is planning to build a fou th water plant that can provide additional 200 thousand tons of water to the city. Shangqiu is the control center of telecommunication in eastern part of Henan Province-the optical fiber cable connecting Shanghai and Frankfort and the optical fiber cable along the Jingjiu Railroad meet each other in Shangqiu; the installation of Zhengzhou-Xuzhou section of the 1,800 way coaxial cable project connecting Xi'an and Lianyugang was already completed. Shanqiu is able to provide services to 150 thousand users of the program controlled telephones and has also developed services of paging and mobile phone. Through telephone, telegram and facsimile, one can easily connect other places in China and abroad from Shangqiu.

The second step was to put emphasis on soft environment for investment. On one hand, the hardware for receiving investment is important, and on the other hand, software often means more to an investor. Therefore, we have included systematic development of software environment into our top agenda, and a software environment management and control committee under the leadership of high level officials of the municipal government has been set up to reinforce the improvement of software environment.

# II. Industries suitable to be developed in Shangqiu

According to analyses and assessments of factors in economic development, key areas in Shangqiu's development are: commodity circulation sector, agricultural and husbandry production and processing, light industry and textile industry and other labor intensive industry like production of garments, household electronics and toys, and other industries that already laid some foundations in Shangqiu.

Agriculture and husbandry have been the traditional advantages of Shangqiu. The completion of Jingjiu Railroad brings good opportunity for Shangqiu to increase production and processing scale and to develop domestic and foreign markets. Abundant raw materials, inexpensive labor cost and convenient transportation linking consumer markets in Beijing, Tianjin, Shanghai, Ningbo, Shenzhen and Hong Kong, make development of agriculture and husbandry production and processing in Shangqiu a prosperity industry.

As indicated by the history of the world economic development, transportation center will eventually become commodity circulation center. Jingjiu Railroad enables Shangqiu to be the center of both railway transportation and road transportation, and also provides opportunities for development in circulation sector. Shangqiu has a bright future in wholesale, retail, transshipment and storage.

For those old industries, some of which have already occupied important position in the domestic market, the completion of the Jingjiu Railroad will help them increase their reach of raw materials collection, expand their sales market, speed up commodity circulation, and

rapid progress in production and in market shares is expected when advanced managerial and technical expertise could be introduced from those more developed regions. These industries are represented by Zhanggong Winery, Linhe Winery, Shangqiu Brewery, Minquan Winery, Henan Kedi Food Product Group, Henan Wuyang Group in the food processing industry; Yaxiang Group, Jiutian Group and Tianhe Leather Industry Group in light industry and textile industry; Bingxiong Group in refrigeration industry and pharmaceutical industry.

At present stage, Shangqiu is weak in some labor intensive industries including household electronics, clocks and watches, toys, plastic products, and garments. Yet, Shangqiu has many advantages to improve the current situation. Land rental and labor cost are far lower than those in coastal areas. It is very convenient to export products through Shanghai, Hong Kong, Zhengzhou and Lianyungang. And It is even more convenient to sell products on the domestic market. As Shangqiu has made great improvements in its investment environment, domestic and foreign investors, especially those from Taiwan, Hong Kong and Macao, will be assured to gain favorable rewards from investments in labor intensive industries.

# III. Recommendations of economic development policy

- i. Make full use of advantages of national and provincial reform experimental district and speed up pace of economic reform. Efforts should be mainly focus on reform of ownership of industrial and commercial enterprises, convert of the government functions and speed up of the progress of establishing a socialist market economic mechanism.
- ii. Encourage outside investment and increase volume of capital input. On one hand, hardware environment that facilitates absorption of investments, i.e. infrastructures like transportation, power supply, telecommunication and water supply should be improved; on the other hand, efforts should also be made towards increase of citizen's awareness of open to the outside world and increase of government efficiency so as to create a benign software environment that meets the requirement of opening to the outside world and of attracting outside investments.
- iii. Encourage development of non-state ownership and encourage balanced development of all forms of economy. This requires protection of the legal rights of non-state owned enterprises and their managers, insure politically fair treatment and encourage their development on policy level. Insuring legal rights of non-state owned enterprises not to be threatened will help create a good environment for healthy development of non-state-run economy.
- iv. Attach great importance in effects of science and technology and education on economic development and adopt the strategy of flourishing commerce through technology and education.
- v. Reinforce family planning and environment protection to ensure a sustainable economic

development.

- vi. Establish and improve social security system suitable to present situation in Shangqiu to ensure stable social and economic development.
- vii. Strengthen the socialist spiritual construction and legislation construction.

# IV. Importance of the development along BKR and suggestions to Central Government's policy on this issue

Development in inland areas like Shangqiu will benefit not only the local areas but also those of more developed coastal areas and thus meets the overall national interests. First of all, a big gap in economic development between coastal and inland areas is contradictory to the socialist principle of improving living standard together, and is a threaten to the nationwide social stability. Therefore, in the "Recommendations by the central committee of the Chinese Communist Party on formulating the ninth five-year plan and 2010 development objectives of the national economic and social development", it is clearly pointed out that starting from the ninth Five-year Plan period, the Chinese government will give more emphasis on supporting development in inland areas. The Chinese Government will adopt a policy aiming at slow down the speed of the widening gap and will gradually put more efforts in narrow down the gap. Narrow down development gaps between regions and reduce unfairness in social distribution towards finally achievement of increasing living standard together, is an important factor of social stability and a fundamental issue of socialism. Secondly, if inland people remain unwealthy, their low purchasing power will restrict the market expansion of coastal areas and thus restrict their economic development. Thirdly, the big gap between coastal and inland areas tends to push millions of job seekers moving towards coastal areas and will cause many nation-wide problems in transportation and social security that will be very difficult to solve. Fourthly, setting up companies in inland areas means production is near to energy, raw material and consumer market, and will help to improve macro economic efficiency of the whole country.

However, it is impractical to expect development in inland areas to adopt exact even paces. Development hotspots will scatter along communication arteries and will mainly take place at those cross-roads. The Jingjiu Railroad links Beijing, Tianjin, Hebei, Shandong, Henan, Hubei, Anhui, Jiangxi, Guangdong and Hong Kong, total ten provinces or autonomous cities or special districts. Except for the two far ends, most places are underdeveloped areas which cover hundreds of thousands square kilometers of land and hundreds of million population. Development in regions along the Jingjiu Railroad is destined to make great contributions to the narrowing down of the gap between coastal and inland areas and to the improvement in macro economic efficiency in China.

In order to fully exploit the positive impact of Jingjiu Railroad and to accelerate development in regions along the railroad, we recommend that the central government give policy support to these regions. i.) open wider to the outside. Since regions along the Jingjiu

Railroad is adjacent to coastal areas, they should adopt some policy as coastal areas. Up to now, Nanchang and Jiujiang have already become cities opened to the outside world, and we recommend more cities could be chosen. ii.) select more cities along the railroad to be the testing city for improvement in capital structure. iii.) give more favorable policy on putting up stocks on market. iv.) more inputs in environment protection to be provided by the central government. Because of underdevelopment of economy, most areas along the Jingiju Railroad were negligent in environment protection in the past. Today, although this issue has been attached with great importance, the local governments and enterprises are facing with heavy pressure in capital input, fiscal revenue and employment. v.) build national level wholesale markets and warehouses for storage of cereal and oil at those communication hubs. vi.) slightly lower the capital ratio requirements for projects along the Jingjiu Railroad. vii.) complete the conveyance systems and facilities for Jingjiu Railroad, so that the railway can produce the utmost effectiveness. viii.) reconstruct roads along the railroad and raise their quality level. Because Jingjiu Railroad goes, except in Jiangxi Province, through remote areas in each provinces where there are few incentives for each provincial governments to invest in road construction projects. Therefore, capital input from central government is needed. ix.) we recommend that for some big projects that are suitable to be located along the Jingjiu Railroad, this area could be first considered.

Adhere to the State Guideline of Open and Sustainable Development and Build Nanchang into a Modern Industry and Trade Center in the Middle Section of the Areas along the Beijing-Kowloon Railway.

# Nanchang Planning Commission Octomber, 1997

I. The Proposal and its significance of building industry and trade center in the middle section of the areas along the BeiJing -Kowloon Railway.

Nanchang is the only provincial capital city along the Beijing-Kowloon Railway. It governs two counties and five prefectures, with an area of 7403 square-kilometer and among which the city is 617 square-kilometer. The populations up to 4 million, among whom that of in the city is about 1.54 million. In 1996, the Gross National Product(GNP) was 30.1 billion yuan, total industrial output value was 31.6 billion yuan and total agricultural output value was 6.9 billion yuan, the added value of the tertiary industry was 11.8 billion yuan, and local revenue was 1.2 billion yuan. The proportion of these previous targets compared with those of Jiangxi province are 20.5 percent, 23.5 percent, 9.4 percent and 15.6 percent respectively.

President Jiang Zemin said with satisfaction that Jingxi has gone through great change "very quietly". The economic situation and city appearance in Nanchang have climbed up one and another new steps likewise since reform and opening up to the outside world especially during the period of the eighth-five- year plan. During the period of the eight-five -year plan alone, GNP raised 1.1 times, total industrial and agricultural output value 2.3 times and the revenue 1.1 times. Economic grows quality and people's living standards have improved a lot. New national economic setup has formulated, of which industry is the main pace, agriculture is well developed and the tertiary industry develops quickly, with the proportion of 15:46:39

However, we meet some problems e.g. inland awareness, low level in industrial structure, lower competitive power, slow rising of city energy level, reform backwardness and so on , these disadvantages enlarge the disparity between Nanchang and developed areas little by little .As new century is coming , Nanchang held the discussion "emancipating the mind again ,emancipating greatly", at present the principles "in face of difficulties, grasping opportunities and developing Nanchang " have become their common understanding .

The completion of the Beijing-kowloon Railway is indeed a perfect opportunity to Nanchang .Nanchang has been becoming an important hub city in national communications setup, there two big steel-iron railway lines -the Beijing-Kowloon Railway and Zhejiang - Jiangxi Railway intersect, also it is the intersection of national road 105,320and 316 and that of the main lines of fiber optical cables Beijing-Kowloon -Guangdong, Nanning-Wuhan-Chongqing, Fuzhou -Hangzhou-Guizhou-Chengdu, and 4D Nanchang civil airport is about to start. Nanchang reaches round -Baihai economic circle in the north, link up with

Shenzhen, Hongkongand the whole Zhujiang Delta in the south, connects with Yangze Delta closely in the east and borders on Hunan so as to connect with the whole large southeastern area in the west. It enjoys great geographical advantages.

China 's Ninth-Five Plan makes sure the goal of speeding up the development of midwestern area and building economic belt along the Beijing -Kowloon Railway, and because of more and more obviously development ,Nanchang owns many advantages to become an important economy 'carrier' in the middle section of the areas along the Beijing-kowloon Railway , so as to give full scope to its incomparable diffusion role as economic growth point .

Nanchang also lies in the middle part of Yangze river opening and development area, it is a major member unit of Nanchang and Wuhan economy coordinated area. Nanchang surly will show its extensive development prospects gradually through strategy division and advantage complement with Yangze river-the "dragon "flies swiftly upward(develops quickly).

It is in such a situation. The Ninth Five-Year Plan of Nangchang National Economy and Social Development and Long-term Objectives for Years up to 2010 is put forward. Nangchang will adopt the development policy of industry and trade "Upgrading industry and strengthening market", "Flourishing trade and enlivening market". Efforts should be made to build Nanchang into a modern industry and trade center in the middle section of the areas along the Beijing-Kowloon Railway. Nanchang will become open city with high efficiency and with multiple functions and strong diffusion.

The main industry in Nanchang is processing industry, with complete range of types, including 36 types of industries; these industries develop well, the fixed assets owned is 17 billion yuan, and the labour forces—is 0.4 million. In the structure of industry output value, heavy industry accounts for 51 %, a little more than light industry; state-owned industries is 54%, and large and medium—sized industries is 57%, many enterprise—have long histories and enjoy great popularity in their field. The completion of the Beijing—Kowloon Railway provides good conditions for the output and input of production factors and industry production with a fast pace and low cost and also helps to develop the market further. In the future the ideas of system initiative, structure optimization and investment running should be followed to fasten the three pillar industries: automatic, machinery and light industry. Great attention should be paid to those enterprise—group—whose sales volume is more than 1 billion yuan annually—such as "Jiangling auto, farm auto of transport, tea element, newspapers, and pharmacy etc., Technical initiative of enterprises should be strengthened to faster a number of best brands of products whose grades should be up to a higher criterion rectified by certain provinces and departments.

Commence and trade industry is another type of pillar industry which Nanchang will focus on .last year, the turn of the consumer goods was 9.2 billion yuan, and that of the first half of this year is 5.2 billion yuan, a rise of 20.3% compared with the same period last year. Hongcheng Building has enter into one of "the best 100 national commence industries" and HongCheng big market has been one of the national 22 commodity-wholesale markets with optimal trade volume. In the future, great efforts should be made to build and foster big

commodity markets, so as to push the commerce and trade industry to develop rapidly. This will benefit the new development of Nanchang city and accelerate the process of market reform by making the most of geographical advantages. Employing existing resources, industries and infrastructure facilitates. According to principles of "grasping opportunities, having our eyes on the future, showing up the advantages, creating characteristics, running integrated and demanding administrative propelling", more active efforts should be made to a number of commodity markets with great property in east China or the Beijing-Kowloon economy belt, these markets should have a trade volume over 1billion yuan annually or their diffusion role reaching to other provinces, such markets, for example, including markets of fruits, aquatic products, building materials, parts of autos and motorcycles, wholesale of agricultural and sideline products, means of production and so on. Also, markets of production factors should be built rapidly. Attention should be paid to a number of large-sized enterprise groups of commerce and trade with pluralistic styles, diversified industries and open orientation.

In accelerating the development of industry and trade, Nanchang shall coordinate with that of the areas along the Beijing-Kowloon Railway in order to develop productive forces setup in a vast range and at high level, so as to form an integrated framework" One line, two area and three circles of which point connects with "axle", the "point helps the "axle" and each circle gives impetus to one and another to strengthen Nachang's "carries function being industry and trade center. "One line refers to modern industry intensive belt along the Beijing-Kowloon Railway in Nanchang city, its productive forces setup should be enhanced two areas refers to Northern Nanchang opening and development area separated to old town of Nanchang by river and Xiangtang area lies on the big railway communications hub. Northern Nanchang has favorable conditions in developing industry, and its commerce and living environments satisfying. Gangjiang new city will be built up, Nanchang will take a new look-modern urban setup, with an area of existing 80 square-kilometer at present and 140 square-kilometer in the future. Xiangcang area shall develop into a rising city with leading commerce and trade industries and large-scale industries.

#### II. Adhere to the strategic guideline of open and sustainable development

Considering Nanchang's future development, the guideline of open and sustainable development should be followed and it should be executed through the whole arrangement of the plan. We fundamentally feel that there would be no previous achievements without opening up to the outside world, lower opening up is one of the crucial reasons leading to the backwardness of Nanchang. The goal of building Nanchang into modern industry and trade center can not be realized without enlarging the opening to the outside world and without improving the opening-up level. We profoundly feel that the increasing style of Nanchang in the process development should change as soon as possible, and also, increasing quality should be improved, sustainable development ability should be strengthened and so take a sustainable development way. Only by this, Nanchang can play an active role in national and international economic competitiveness and corporation.

Nanchang regards the pushing-forward of opening-up and attracting investors and investment as the most important jobs. The department concerned has formulated preferential policies with multiple respects. At present, the investment environment in Nanchang has improved a lot. Nanchang abounds in water and electricity supply. Basically, the import and export way has been a top one, the main road in the city has amounted to 32%. Service facilities for commerce and living are enough to be chosen, infrastructure facilities of northern Nanchang opening and development zone and Nanchang high and new technological property development zone has had the ability to admit large scale industry investment to actual operation.

With regard to speeding up the transmission of economy information, municipal telephone capacity has been up to 0.4 million ones, with a proportion of 1:3 compared with the population of city proper. Nanchang has participated in national and international information networks, the automation level of government developments and enterprise and institution badies is increased rapidly. In the future more attention should be paid to prominent constructions and at the same time, not so important construction should be avoided. Great efforts should be made to straighten out foreign investment management system increase administrative efficiency, improve legal system construction and cities civilization level. We are sure of that in line with existing geographical advantages, economy conditions, service functions, policy environment and lost cost compares with the fixed value of working forces, real estate and so on ,the investors must get perfect result in respects of industries as pillar industries infrastructure facilities transformation of state owned industries high technology industries agricultural resources development and industries constucture, whatever the investment is from aboard or home, from other provinces and cities or the province and city itself .Actually, with the completion of the Beijing -kowloon Railway and the return of Hongkong to motherland, the tendency of Hongkong's investment to the north and the increasing of foreign investment have been clean. It means that a lot of investors have faith in the past prospect of Nanchang.

In order to realize sustained development of Nanchang, We will abide by the spirit of Agenda 21 and put the emphasis in the following filed. We also hope we may have various cooperation's and exchanges with various countries and cities in al kinds of aspects.

- 1 To accelerate the transformation of state owned enterprises pay attention to large sized ones and lay the money on technical initiative, the development of new products and foster best brands of products. Strengthen sustainable development ability of public ownership industries and enterprises.
- To create new advantage of Nanchang as a land of fish and rice a well-watered place where fish and rice are abundant. Carry out the project of "ton-grain city", spread letter seeds, improving the quality of agricultural products. and exploit the potential into full play, combine agriculture with characteristics with an operation form of trade, industry and agriculture integration, Up to the year 2000, agriculture with characteristics shall amount to 50% of total agricultural output value.
- 3 To rigorously enforce the management of construction sites, carry out protection system of fundamental farm land and vegetable base. To accelerate the building of small towns and develop the arrangement of countryside land so as promote the development of township

industries, make farmer household live concentrately and farm products distribute regionally.

- 4 Keep improving the education level of people in strengthening sustained sense. On basis of universalizing 9-year compulsory education, secondary education should be universalized in town areas and some well- developed countries. To carry out the programme of which Nanchang may enter into "National 211 project", so that the reform and the whole education level of Nanchang may be among the top positions in China. At the same time, sustainable training with various forms and levels should be developed to improve the awareness of leaders especially the management staff.
- 5 Great efforts should be made to family planning and reduce the population density in town areas. To take decisive measures to define the direction of "erecting building and increasing afforestation 'and improve the attractiveness of new town areas to the residents in old town areas, and encourage them to move to new town areas.
- To develop rising industries and energetically enlarge the employment c?pp2272Yarry out re-employment project. One of the three Chinese famous buildings-Tengwang Bavillion lies in Nanchang, and there are over 100 humanistic and natural scenes such as national forest part -Meiling called "small mountain Lu", with the favorable opportunity of the completion of the Beijing -Kowloon Railway, there valuable resources should develop these scenes with border areas jointly so as to make tourism be a new economic growth point. Township recorded unemployment proportion should be controlled within 3%.
- According to the demands of building ecological city, environment protection should be strengthened and that of Nanchang should be within the high or at least middle level among national key cities, so as to being a new Nanchang with blue sky and clean water into 21st century. More attention should be paid to build smoke and dust controlled areas noise controlled areas. Those enterprises or production lines which pollute heavily should be closed, stopped, annexed, transformed and moved, and the amount of discharge should be controlled, craft and production without much pollution should be spreaded gradually. Large sizes waste water treatment factories and refuse treatment fields should be built.
- 8 To keep improving civilization level of people in Nanchang .To rigorously execute city plan, present an urban prospect of "one river, two banks ."marked buildings complement with key regions of style and features. Comprehensive management of city should be strengthened so as to make every detail of city operation in a coordinated way which is quick in response, scientific and with rules to abide by. Efforts should be made to environmental sanitation and city afforestation and beautifying .Try to improve people 's living environment and so increase the fame of the city.

# II. Recommendations on development and opening for areas along the Beijin-Koeloon Railway.

To execute, the strategy of supporting by two ends, rising in the middle part and developing dynamically. Its main points—are: (a)To strengthen the diffusion to this economic belt from the southern the north, for example, it is better to unite with provinces and cities along the railway to construct industry and business parks and execute—key coordinated, programme;

- (b) To promote, the economy "hump" in the middle part of the area along the railway, for example, the state shall increase the input to Nanchang -Jiujiang industry "corridor"; (c) According to resources conditions, existing economy conditions and advantages of different regions along the railway, strategy division should be made and in line with this type of division the state lays special emphasis to this area.
- 2 To adapt to the tendency of industrial structure adjustment in Shenzhen and Hongkong, the state should formulate policies to encourage foreign investment programmes to develop northward, and such programmes should be the types of labor-intensive and fund-intensive. so Nanchang can become a large pilot site to attract foreign investment to middle western area.
- 3 The state should put emphasis on central cities especially central cities in the middle part along the time in order to encourage these cities to play special roles in formulating and developing economy belt along the Beijing-Kowloon Railway .Reform and regulation policies should be prior to these cities and these cities should be based to be given more chances to held some related large sized programmes and business affairs conferences.
- 4 The traffic capacity of the Beijing-Kowloon Railway should be improved quickly, the number of pain-train which start from Nanchang station should be increased. Conditions should be created rapidly to transfer Beijing-Kowloon trains to the line of the Beijing-Kowloon Railway.
- 5 To accelerate the building of Beijing-Kowloon government information network institution of economy belt along the Beijing-Kowloon Railway. Try to win supports from international economy organizations and well-developed cities along coasts.
- 7 To establish long term cooperation relations along the railway in respect of industrialized management of agriculture and tourism, and so on. To from big markets especially production factors markets from south area to north area along the railway, distribute rationally natural resources, economy resource and social resources to form combined power to international character.

Nanchang is a city with long history, and with profound cultural details. Nanchang is also a rising city with attractive business opportunities. 70 years ago Nangchang was chosen to beak out the famous "Oct 1st uprising"; When the bell of 21st century is about to ring, We hope Nanchang will make contribution to out county's economy construction and the formation and development of economy belt along the Beijing-Kowloon Railway in the course of cooperation and reciprocity in trade with various aspects so as to make Nanchang create its new history in 21st century.

# Jiujiang City: An Expected New Economic Growth Commanding Height Along the Beijing-Kowloon Railway

#### by the Institute of the Municipal People's Government of Jiujiang

Being a cultural city of more than 2,000 years of history, Jiujiang located at the middle-lower reach and to the south side of Yangtze river, is one of the ten largest ports along the river and the unique opening and trading port city of Jiangxi province. The City is composed of 12 counties or districts and Lushan Mountain Scenic Area. The total area of the city is 18,800 square km, total population 4.32 million, half a million of which lives in urban area. Since the adoption of the opening to the outside world policy, Jiujiang city has made unprecedented economic achievements. While industrial and agricultural development have maintained fast growth, infrastructure and key important projects construction have been expedited. In particular, the Open-To-Use Ceremony of the Beijing-kowloon railway of November 11, 1995 held in Jiujiang indicates a new round of opening up and development.

# 1. Jiujiang City plays strategic role in promoting the development along the Beijing-kowloon railway

Mr. Hershman, the develyph economist of the United States said in his "Strategy for economic development": Economic advance does not necessarily appears in each area simultaneously. Once it appears, the huge dynamic will make the economic growth concentrate on the starting point. This "starting point" is just what mentioned by the academic circle as the "growth point". The academic world is of the view that economic growths always emerge at different points with various vitality. Jiujiang city plays an important strategic role in cultivating Beijing-kowloon economic strip. It should be and definitely is able to become the greatest growth point and realistic commanding height of the economic development along Beijing-Kowloon railway.

1). To speed up the prosperity and rising up of Jiujiang city will promote the development of the two economic strips of Beijing-Kowloon railway and Yangtze river. Jiujiang city situates at the central part of both of the Beijing-Kowloon railway and Yangtze River economic strips, the former comes across the latter in the urban city. This constitutes a "gold cross" here with preferential geographical position advantages. From the view on the national overall strategy, Jiujiang not only occupies the transitional region for the reorientation of development efforts from the east coastal area to the middle and west parts of China, but also is the intersection point of the two major economic development strips of Beijing-kowloon railway and Yangtze river. It is of great significance in the national strategy, namely "the inclination to the west relying on the east; the exchanges between the North and the South; and the economic cultivation of Yangtze river and Beijing-Kowloon railway areas". From the view along the whole Beijing-kowloon railway, Jiujiang is located right in the middle of the Railway as well as the only cross-point between Yangtze river and the railway. It is the only comprehensive hub of water and land transportation. From the sight over the economic structure of Yangtze river, we see Jiujiang is the overlapping part between

the two major economic zones of Nanjing and Wuhan city. In addition to the relative backward economic development, there is no other metropolitan which could exert radiant effects on the area between these two cities. In this context, it is of great significance to accelerate the development of Jiujiang city.

- 2). To promote the prosperity and rising up of Jiujiang city will contribute to the development of the locked areas among the four provinces of Jiangxi, Anhui, Hunan and Hubei. Jiujiang sites in the joint area of the four provinces, and exerts significant radiant impacts on its neibouring area. It has been one of the four major national rice markets and one of the three major tea markets from the ancient times, and gradually become the materials and commodities exchange center of the four provinces' bordering area. Therefore, to intensify the development of Jiujiang city will further bolster the prosperity and development of the surrounding area. Besides, it is of particular importance for those backward area to achieve economic progress.
- 3). The prosperity and rising-up of Jiujiang city is of strategic significa ce to the revitalization of Jiangxi province and the renovation of historical remote areas. Jiujiang is the "north gate" to the opening-up of Jiangxi province and the important part of the "Gold Triangle" economic zone of Nangchang, Jingdezhen and Jiujiang as well as the industrial corridor along Nanchang-Jiujiang railway. For the latter, especially, Jiujiang covers 80% area of the corridor. During the "Eighth Five-Year Plan" and "Ninth Five-Year Plan" period, about 70% of key and major investment projects of Jiangxi province have been implemented on this corridor. According to the provincial planning, this corridor will be constructed as an industry intensive strip with high and new technology, and as the important base for electric power, petro-chemistry and construction materials of the province. In the gold triangle economic zone, Jiujiang enjoys previliged geographical advantages of bordering both the river and railway, and possesses more than half of the Poyang Lake area. It is one of the most important corner of the 'gold triangle". In this context, to speed up the development of Jiujiang will make important contribution to the whole provincial economic development.

# 2. The merited unique advantages of development basis provides indispensable conditions for Jiujiang city to play the role as the commanding height of the development along Beijing-Kowloon railway

The completion of the Railway elevates the strategic status of Jiujiang, at the same time the privileged development conditions enjoyed by Jiujiang makes itself an important supporting point for the opening-up and development of Yangtze river economic zone and the Railway area. This function fulfilled by Jiujiang is becoming increasingly apparent.

#### 1). The Convenient Transportation and Communication

The transportation of Jiujiang city is satisfactory. In addition to the cutting through of Beijing-Kowloon, there are five other railways like Nanchang-Jiujiang, Jiujiang-Wuhan, Jiujiang-Jingdezhen etc. coming across at each other in this city. In regard to vehicle transportation, it's of the same convenience in every direction. There are No. 105 and 316

national highways across the city as well as a expressway connecting with the provincial capital of Nanchang. The whole urban and suburban area is in a complete road network. In the respect of air transportation, Jiujiang finds itself directly bridged with Beijing, Shanghai, Nanjing, Chendu, Guangzhou, Shenzhen, Haikou and Xiamen etc. There are other airways to be opened gradually. As far as the water transportation is concerned, because of the privileges of Yangtze river, it can reach upstream to Wuhan and Chongqing city and downstream to Nanjing and Shanghai or even further to overseas. There are two wharves of 5,000 tons which have already been built up at the Jiujiang trading port, the second stage of construction of this port is already initiated. A three-dimension of water, land and air transportation network is thus formed. There is also a modern communication web in jiujiang city with fiber cable, program-controlled, microwave, paging and mobile cellular phones. With the completion and operation of fiber cable of Beijing- Jiujiang-Guangdon-Shanghai-Chengdu, Jiujiang is expected to be the important communication center of the eastern part of China.

#### 2). The Abundant Natural Resources

There are 80 kinds of metal, non-metal and energy mineral resources under three major categories have been found in Jiujiang. The reserves of 44 kinds of which have been identified. Among them, the reserves of gold, antimony, tin and fluorite take the first position in Jiangxi province, while copper the second, tungsten the third. And the reserves of marble, quartzite, limestone, porcelain clay etc. are quite rich. The potential value of the reserves are of more than 100 billion RMB yuan with great promising future for exploration. The fertile soil, advanced water system and mild climate, wins Jiujiang the name of "Splendid River-South and the Home of Fish and Rice" as well as "the Home of Cotton in North Jiangxi". Cotton, oil seeds and acquittal products take the leading positions in Jiangxi. There are 109 types of fishes of high quality sold satisfactorily to Hongkong and Macao. The total water resources amounts to more than 15 billion cubic meters. Hydro-power resources reach above 700 thousand kilo-watts. Two thirds of the area of Poyang Lake lies in the boundary of Jiujiang, it is an ideal place to develop the acquittal, livelihood and ornamental migratory birds business.

#### 3). The Well-Known Tourist Sites.

Jiujiang embraces huge scenery resources such as the famous mountains, rivers, lakes, cities, caves, temples and courtyards which amounts to more than 260 sites. All of these makes Jiujiang the greatest comprehensive tourist attraction along Beijing-Kowloon Railways. The widely recognized Lushan Mountain is a key national scenery and one of "the 40 best tourist sites in China". It has been enlisted in "the World Cultural Legacy Records" as a world cultural attraction by the United Nations Education, Science and Culture Organization (UNESCO). The Wucheng migratory birds natural reserves of Poyang lake is the largest one of its kind in the world.

#### 4). The Key Industrial Base.

There are 2000 industrial enterprises in Jiujiang, 92 of them are state- or province-owned, of which 54 are large and medium sized. Jiujiang Petro-Chemical Corporation is one

of the 500 giants of its kind in China. Jiujiang Chemical is the biggest chlorine-alkali enterprise in Jiangxi Province. Textile is the traditional industry in Jiujiang with comprehensive classes and specifications. Ship Building industry capacity meets the international standards for cargo, oil shipping and other vessels, and the products have been exported to many countries of Europe, America, Africa and Asia etc. The total value of construction material industry amounts to 1/4 of that of the whole province. Machinery, electronics, garments, metallurgy and food industries have become the vital part of the economy of Jiujiang.

#### 5). Sound Economic Foundation.

The GDP of Jiujiang city in 1996 reached to 1.705 billion RMB yuan, increased by 13.5% compared with that of the previous year. The outputs or revenue of industry, agriculture and services are at the ratio of 24:48:28. The total fiscal revenue amounted to 1.56 billion yuan. Per Capital income was 3,882 yuan. The commodity sales revenue reached 1.1 billion yuan. 439 foreign investment projects had been approved, the real foreign direct investment was US \$ 200 million. At the same time, there were 1048 domestic investments coming into Jiujiang with the total value of 710 million yuan. Exports amounted to US \$ 66.06 million.

# 3. The systematic measures for the opening to the outside world provide internal dynamic for Jiujiang city to be the commanding height of the economic development along the Beijing-kowloon Railway.

The "Ninth-five year plan" and the following decade is the critical period for Jiujiang city to speed up the second strategic phase for development and to narrow the gap with the developed areas. The completion of Beijing-Kowloon railway creates favourable conditions for Jiujiang to restructure its industry system at larger scale and higher level. Jiujiang needs to capture every opportunity, take the full advantages of Shanghai-Pudong, Yangtze river triangle economic circle, Pearl river triangle economic zone and pan-Bohai economic rim; fully participate in the domestic and international exchanges and function better as the transitional and supporting part between "dragon head" and "dragon tail" of Yangtze river development; play radiating and leading role in revitalizing and promoting the economic development of neighboring areas so as to achieve extraordinary and jumping forward progress. The guidelines are "making every effort to construct the city by opening up, to make it rise by science and technology, to stabilize the city with agriculture, to beef up the city with industry and to prosper the city with tourism and business". By the end of this century or early next century, it is to be expected that Jiujiang will be a modern port city with the population of more than one million.

To achieve this objective, the following critical measures are to be taken:

Firstly, further deepening and widening the opening up of Jiujiang city to the outside world, revitalizing the city with commerce and business. It is to intensify the construction of the port, build and expand a series of new ports and specialized docks along the 153 km banks of Yangtze river, including the construction of 300,000 tons of container wharf to

increase the handling capacity of these ports. Through the completion of the infrastructure and supplementary construction of the port, it can be hoped that the function will be transformed from a pure loading and unloading transportation port into a multi-functional, automatic and international inland river trading comprehensive one. Meanwhile, it is to make further efforts to build up free-tariff zone to gradually promote the transition of Jiujiang into a free port. It is needed to facilitate the construction of the two economic development zones of Jiujiang and Gongqing, and enable them to become the growth point for investment and business. In addition, it is under planning to construct two major centers of "Jiujang Materials Wholesale Market" and "Central Wholesale Market of Agricultural and the Related Products for Beijing-Kowloon Railway Area". Through all these measures, it is expected that a modern business port with significant effects on its neighboring areas will emerge.

Secondly, to encourage tourism by introducing the famous brand of Lushan Mountain. Tourism is the world-wide important industry of 21century. The key integets point for tourism in Jinagxi is Jiujiang, while Lushan is of the greatest value in Jiujiang. Great efforts are needed to be made in order to develop the series of tourism resources including Lushan mountain, the Bridge over Yangtze river and Nanhu lake entertaining center etc. It can be anticipated that through the development of tourism it will promote the other related industries such as food, transportation, tourism commodities and products as well as even the whole services industry.

Thirdly, to further expand its opening-up through introducing and attracting overseas investment and strengthen its cooperation with foreign investors so as to enhance the comprehensive development of infrastructure, agricultural and tourism, and to reform its old state-owned enterprises with the cooperation of foreign investment. In addition to these, there are some public relations activities need to be undertaken by developing sisters and friendly relationships with both domestic and international cities. Aiming at the reinforcing of exportation, it is to improve the construction of export products base and adjust the structure of the export commodities, in so doing to increase its exports efficiency.

Fourthly, an equilibrium emphases on both industry and agriculture to achieve balanced development. Special attention should be earmarked to the efficient, high-level industrial projects and agricultural projects with characteristics. Extra consideration will be channeled into petro-chemical, construction material, textile, mineral, machinery and vessel construction industries along the Yangtze river so as to build up energy, heavy chemical, construction material and vessel building industrial bases. By the same token, the Nanchang-Jiujiang industrial corridor near the Railway will build up the "Five cities" of petro-chemical, polyester, silicon-chemical, glass and cement, additionally with a fully developed fruit plants strip, which all together will become the backstopping industrial belt of Jiujiang city.

Fifthly, the protection of environment. Equal importance should be attached to both hard and soft environment of Jiujiang city within and out of the urban area.

Last but not the least, the intensification of the infrastructure construction of the city will lay sound foundation for Jiujiang to acquire a modern and opening metropolitan image. Several national, provincial and municipal key projects such as Jiujiang Power Station phase III, Jiujiang-Jingdezhen Highway, the grand Hukou Bridge and foreign trading port phase III etc. will be expedited.

In all, the completion of the Beijing-Kowloon railway brings unprecedented opportunities and vitality to Jiujiang. In promoting the sustainable development along the Railway, it is the responsibility of the municipal government of Jiujiang to enable the city itself to be the deserved economic growth point of the railway. This is not only the common expectation of 4 millions Jiujiang people but a objective and imperative reflection as well. It is just like what has been pointed out by Mr. Jiang Zemin, the General-Secretary of China, "Jiujiang, located at the middle of Beijing-Kowloon railway while bordered the Yangtze river and with the treasures of Lushan mountain and Poyang lake, is gifted a promising and boundless prospects".

### To Build a Modern Fuyang by taking Advantage of the Beijing-Kowloon Railway

--speech at the International Symposium on Sustainable Development along the Beijing-Kowloon Railway

by Ya Zhongqing, Vice-Mayor of the Fuyang Municipal Government, Anhui

#### Ladies and Gentlemen.

First, I would like on behalf of the Fuyang municipal government and the people of Fuyang to extend my congratulations to the opening of this International Symposium on Sustainable Development along the Beijing-Kowloon Railway. I also hope the meeting will be a success.

On this very occasion, I'd like to give you some briefs about Fuyang.

### The City's Condition: Advantages and Opportunities

Fuyang, designated as a county-level city in early 1996, is located in northwestern Anhui province, which is also part of the northern Huaihe Plain. The city now administers two other small cities of Bozhou and Jieshou and seven other counties and three districts. With an area of over 18 thousand square kilometers and a population of over 13 million, Fuyang is one of country's densely populated cities.

#### Geographical location:

Fuyang is at the intersection where the Huaihe River crosses the Qinling Mountains. Since very ancient times it has been an important place that linked the commodities exchanges between the north and the south. Within the country's economic structure, Fuyang also lies at the juncture of the east and the west. Rich natural resources from the central and northwestern regions flow to this place in exchange for products from the industrially developed east. As the country intensifies its implementation of certain favourable policies towards the central and northwestern regions designed for the ninth-five-year plan period, Fuyang are coming to enjoy more advantages and opportunities, through which it can become the bridge head linking the country's different parts.

#### Transportation facilities:

The newly completed Beijing-Kowloon Railway crosses all the counties, cities and districts that are under its administration. The railway also links former rail lines inside the territory of Fuyang, forming a convenient network. The Fuyang rail conjuncture which absorbed an over 2 billion yuan investment is the biggest along the Beijing-Kowloon Railway. The conjuncture can offer computerized services for trains traveling from all directions. A 4C grade airport is also constructed to facilitate the Fuyang rail conjuncture. Fuyang is also home to vast plains and easy road and water accesses.

#### Rich reserve of natural resources:

With vast and fertile plains nourished by pleasing climate, Fuyang is rich in abundant agricultural and staple product resources. It's the country's important production base for grain, cotton, vegetables, goats, leather and meats. Raising a total of over 4 million cattle,

the city is known as China's "Cattle's Golden Triangle". Being rich in mineral resources, Fuyang has a reserve of coal of up to 8 billion tons, plus with abundant oil and gas reserves.

#### Market potentials:

Fuyang has been a popular commodities distributing center in history. So far, the city has established over 800 various distributing markets, with 20 of them known around the country. The Bozhou Herb Market, for instance, is the country's biggest, as was called "Hometown of Huatuo" by President Jiang Zemin. The Taihe Nylon ropes Market and the leather market in Linhe, which is known as the leather city of Anhui, are also popular at home and abroad.

So far, Fuyang faces unique chances for further development. One is the chance given by the Beijing-Kowloon Railway. Fuyang has therefore become another attraction of foreign capital flows as over 350 joint ventures absorbed a total investment of over 1 billion dollars. The other, favorable policies have also awarded Fuyang with opportunities to develop 10 million hectares of farmland. Ten counties or cities have been designated as the bases of cotton and grain production. Another is the political benefits it has gained. The completion of the Beijing-Kowloon Railway has brought about to Fuyang many big changes. The city witnessed the visits of many Chinese leaders, including Chinese President Jiang Zemin and Premier Li Peng. Their visits greatly encouraged the people of Fuyang in intensifying their development efforts.

#### Its Development Effort: Absorption of Capital and the Economy

Depending on its unique geographical location and the opportunities it has gained, Fuyang has worked out a development strategy of "boosting its economic development by first making foreign investors profitable". In line with this principle, the city gives top priority to introducing foreign investors and foreign capitals. They have conducted various business promotion trips to many cities around China and to many other countries and regions.

At present, Fuyang attracted over 300 enterprises from Japan, the US, Singapore, Thailand, Australia, Canada and Taiwan and Hong Kong. In 1996 alone, the city had received over 1,600 investors from overseas, with more than 780 investment contracts signed, worth over 6 billion yuan. There are 70 newly permitted joint venture projects as well, with a contract investment of over 62 million US dollars, marking No 1 in the province. Popular products from these enterprises include the "Giant" brand shoes and the Lida cable. Various plazas, markets and department stores are also there in the city.

To make use of the foreign investment, Fuyang, however, based its own development on reforms in various sectors. In 1996, Fuyang had a GDP of 38.7 billion yuan, which represents an increase of 22 percent over the previous year. The figure also goes beyond the provincial average growth of 9.4 percent. Its agricultural output amounted to a total of 7.8 million tons in 1996, marking the No. one in the province. Fuyang's industrial production value also registered a 42 percent increase over 1995. Listed as the first, second, third and fourth of the province's wineries are famous Gujing, Gaolu, Zhongzi and Shahe. In the same year, the city realized a financial income of over 2.4 billion yuan. Fuyang was also listed No. one in Jiangxi province in 1996 in terms of various economic quotas.

#### Its Development Momentum: Strategy and Plan

So far, Fuyang has been enjoying an overall social and economic progress. The city government has designated that a sustainable economic growth be encouraged as it moved forward with its prosperity and progress.

Fuyang's three big advantages: First, the Beijing-Kowloon Railway has offered Fuyang a big chance for it to work out its comprehensive development structure that includes farming, industrial corridor, and business and trade. Second, the city has invested over 3.9 billion yuan in developing cattle products. A series of projects in this regard has already been underway. Third, Fuyang is also taking the advantage of historically renowned figures, like Laozi, Zhuangzi, Guanzi, Caocao and Huatuo in helping attract both visitors and investors.

Four strategies are to be adopted: One is the strategy of invigorating the city's development through science and education. By the end of the century, the two basic educational tasks will be accomplished as vocational education is fully developed and the quality of people is increased. Second is the sustainable development strategy. A legalized protection of environment and natural resources will be coordinated with the city's social and economic progress. Third, the external-oriented strategy. Fuyang decides to fully participate itself into the international economic interactions and cooperation. And the last will be the conglomerate strategy. Through this, the city plans to encourage the pillar industries and sectors to form into groups or conglomerates in an efforts to meet the fiercer competition of the market economy.

Five breakthroughs are planned. One breakthrough will be made in personnel system. In the future, government officials will be selected through recommendation plus examinations. Another one will be made in the agricultural sector. The development of agriculture in Fuyang will follow a way of industrialized farming and animal husbandry. Pillar bases will also be made to accommodate productions of herbs, vegetables, wheat and fruits. The next one will lie in the industrial conglomerates. A format of modern enterprises is to be followed to have capitals reorganized, and enterprises grouped. The fourth one is to make breakhroughs in attracting foreign investment. The original introduction of investments by individual enterprises will be replaced by the dominance of big enterprises and groups. And the last breakthrough will be made in the expansion of towns and cities. With this breakthrough, Fuyang is expected to become a center in northwest Anhui province.

Ladies and gentlemen, Fuyang is still embarrassed by its weak economic strength although the past several years have seen its rapid development. Its wonderful location, easy transportation and abundant resources are not matched by its development. There is still great potential for development in our city. For this reason, by promoting Fuyang and discussing its future plans at this International Symposium on Sustainable Development along the Beijing-Kowloon Railway, we are inviting all of you to join us in canvassing our beautiful tomorrow in Fuyang.

Thank you!

# SOME ISSUES OF INVESTMENT AND POLICY IN JIANGXI SECTION OF BEIJING-KOWLOON RAILWAY

#### Lai Zeyuan Cheng Xinghua

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# 1. Jiangxi Section Is The Best Area Along The Beijing-Kowloon Railway For Investment

Jiangxi section is 719 km long, or 30.2% of the whole main line of Beijing-Kowloon Railway, which extends for 2380 km. The artery runs from north to south across Jiangxi Province, passing through 75 counties and cities and bringing benefit to an area of 138 thousand sq. km and a population of 3.3 million. In 1995, the output value of agriculture, industrial enterprises with independent auditing ,as well as financial income of the area along the line are 84.2%, 85% and 89.8% of the provincial total, respectively. The economic development of the section is actually the economic development of the whole province.

Jiangxi section of Beijing-kowloon Railway has great development potentialities and investment chances, with basic conditions for sustained, rapid and sound development. Besides Beijing, Tianjin and Pearl River Delta, the section can be considered as the best area along the line for investment, for displaying the role of Beijing-Kowloon Railway and for profit .It is due to the following:

1) Favorable economic foundation and great potentialities for sustained development. In other provinces there mostly outlying mountain area, lacking big or medium-sized cities and solid industrial foundation along the line, but conditions in Jiangxi is much better. Moreover, since mountain-river-lake comprehensive development project has been carried out in 80's in Jiangxi, achievements have been made with resource exploitation and environment protection as development policy. This project was ranked among priorities of *China's Agenda 21* and drew a great attention from international organizations like UN.

#### 2) The richest area along the line in natural resources.

The area is always called" land of fish and rice", abounding agricultural resources. Boyang Lake Plain and Jitai Basin are important farming and stock breeding areas in our country. The province is rich as well in mineral resources, especially nonferrous metal, valuable metal, radioactive minerals and rare metals.

#### 3) The most beautiful area along the line.

In the area there are 4 national scenic spots and places of historical interest (Lu Mountain, Jing-gang Mountain, Sanqing Mountain and Longhu Mountain),41 scenic spots of provincial level,33 nature preserves(including the biggest in the world migrant preserve on Boyang Lake),35 forest parks(7 are state-administrated),3 historical and cultural cities(Nanchang,Ganzhou,Jingdezhen).In addition, 1910 key

historical monuments and cultural relics (17 under state protection),37 key temples and 10 museums in memory of great names in history are situated here. All these nature-blessed scenic beauties, historical and cultural sights have contributed to this section as a north-south corridor of scenic spots and places of historical interest.

#### 4)An advantageous geographical position.

Jiangxi section is situated at the juncture between Yangtze River Economic Belt and Beijing-Kowloon Economic Belt, with Hong Kong-Guangdong-Fujian coastal developed region as neighborhood, Jiangxi has more chances in market to accept industrial transformation and radiation from other areas.

5)Building Beijing-kowloon Economic Belt with efforts of whole province.

Unlike in other provinces and cities along the railway, the artery runs across Jiangxi from north to south. Paying great attention to this valuable chance, provincial government call to build Beijing-Kowloon Economic Belt with efforts of whole province and to make it backbone of economic development in Jiangxi Province.

#### 6)Favorable tendency of economic development.

Jiangxi accomplished six years ahead of time the Target of increasing the GDP to four-times the 1980 figures by the end of this century, with GDP 145.6 billion RMB Yuan in 1996. Especially in 90's, Jiangxi has quickened the pace of economic development. Between 1991and 1996, the annual growth rate of the province's GDP averaged 13.6%, or 3 percent higher than the national average. At the same time, investment environment has markedly improved. Firstly, a leap forward has been made in infrastructure conditions. The opening to traffic of Beijing-Kowloon Railway formed in the hinterland of Jiangxi a big cross of railway lines, and it provided the possibility to central and southern part of province to carry out big projects. Reconstruction of two state highways has been completed, asphalt roads can reach every county. Posts and telecommunications have achieved new success. The program-control telephones have been installed above the township level. Fiber-optic trunk lines and digital telecom have begun to take shape. The ability to supply power has been steadily reinforced, with a large unit built each year. Secondly, in the field of "soft" investment environment, province carries out overall open-up policy and promotes work efficiency, learning from neighboring coastal areas, the investment environment is becoming better and better.

In summary, Jiangxi section has better conditions in many aspects. It is the biggest region for investment and development. It will play a very important role in building the Beijing-Kowloon Economic Belt.

#### 2. Fields For Investment In Jiangxi

1. New material industry, based on rare-earth material, ceramic and nonferrous metal. Jiangxi is taking effective measures to make it an important industrial base for new materials in our country.

- 2. Tertiary industry, based on tourism, trade and finance. Jiangxi Province has great market potential, for there isn't any non-state commercial bank in Jiangxi yet.
- 3. Effective agriculture, based on grain processing, animal husbandry and aquatic product, fruit and vegetables. Abounding in rice, cotton, oil-bearing crops, tea and oranges, it has thriving agriculture and is known as a "land of cotton, tea and fruit" and a rice granary. Especially deeply processed farm products have attracted many investors inside and outside of province.
- 4. Medicine industry, based on pharmaceuticals and preparations. Zhangshu is a famous place for its medical products.
- 5. Engineering industry, based on walking machines. Jiangxi boasts a lot of advantageous enterprises and products, such as Jiangling Automobile, Changhe Auto, Ganjiang Agricultural Trunk, Hongdu Motors, Fengshou Tractor, Changlin autolift etc. A strong support is given to this field.
- 6. Electronic industry, based on household appliances, communication apparatus and electronic devices. In this field cooperation with domestic and foreign investors has made achievements.
- 7. Construction materials, based on cement, new building and decorating materials. Jiangxi is the most abundant of building materials area along the line.
- 8. Chemical industry has strong competition ability and resource base.
- 9. Electric power. The location of nuclear power station has decided.
- 10. Construction of transportation network, based on road building.

#### 3. Some Considerable Policy Issues

- 1.Making the old liberated area rich is a important project, so the state should strengthen the support to such areas. Practical measures should be taken, such as arranging some processing industry projects and giving more investment.
- 2.Taking comprehensive measures to solve the protruding problem of weak investment ability. In Jiangxi, since 1953 grand total of investment per person is only 48% of the national average, or the last second among the provinces. Not enough investment is the main factor restricting the economic development in Jiangxi. The state may adopt some practical and effective steps, for instance, to establish Beijing-Kowloon Development Bank, to issue B-K Railway Construction Fund and debenture, to build in big cities, like Nanchang, branches of foreign-fund bank, and to increase the quantity of companies on the stock market, etc.
- 3.To give balance to the areas along the line in system and policy aspects. For instance, to widen the open-up region along the line, to give local government more power in examining and approving projects and to rank all cities above the prefecture level along the line into experimental units for optimizing capital structure, etc.

## Research on Productivity Distribution of the Areas of Jiangxi Province along Jingjiu Railway

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Sustainable development, which was reflected in the Agenda 21 approved in the UN Environment and Development Conference in 1992, is gradually accepted and initiated as a global development strategy in the world. China Agenda 21, which initiate a new concept and methodology in the economic development and social affairs, was approved in 1994. Certainly, in the preparing and executing of the plan of productivity distribution of Jingjiu Railway Region in Jiangxi province, the idea of sustainable development should be one of the important factors the central and local governments considered. The Sustainable Development Strategy should be carry through in the productivity distribution plan. Sustainable development, which means of development not only satisfying the needs of the contemporary but also the future generation's development needs. It is a best way of the development of Jingjiu Railway Region. After our investigation and research, we think that the main contents of sustainable development strategy, which should be carried through in the productivity distribution of Jingjiu railway region, include the following:

- a. Form a economical and intensive growth model through transferring the way of economic development, promoting the development of industry technology, decreasing the consumption of resources;
- b. Lighten the population pressure on environment and resources through raising the standard of morality and quality of science and technology, carrying through family planning policy.
- c.Form a benign circulation of environment, resources, population, economic and society through carrying out sustainable development strategy.

As a region with relatively lower level of economic development and abundant resource, Jingjiu Railway region has gained a good transportation environment provided by this arterial railway. Jingjiu railway region is one of the important regions of productivity distribution in China. It provide the huge development opportunities for the local governments. At present, local governments along Jingjiu railway region already realize that this is a good opportunity for fastening the economic development, narrow down the gaps between the eastern developed areas. The sustainable development is a absolute way for the development of Jingjiu Railway region. Across through the Jiangxi province form north to south, the length of the Jingjiu Railway in Jiangxi is about 700 km, 2/3 of the total, with beautiful scenery, poetical abundant resource and investment opportunities. The following aspects demonstrate these advantages:

a.Good economic foundation. By the end of 1995, the total GDP of the 22 cities along this railway is amount to 41% of the total GDP of Jiangxi Province. There are 13 state designated commercial grain and cotton bases, 14 province designated fishery counties along the railway.

- b. Favorable geographic location. Jiangxi is the cross-point of the Changjiang Economic Region and Jingjiu Railway Region, and located between the east developed and west undeveloped areas.
  - c.Abundant nature resource. Jiangxi has rich resource in agriculture, forestry. The province

has plenty of products of grain, cotton. It also has rich reserve of minerals such as titanium, iron, magnetite, hematite, copper, gold.

d. Rich toruism resources. There are about four famous historical cities such as Jiujiang, Nachang, Jian, Ganzhou and two state level scenic spots along the Jingjiu railway.

Therefore, the province government should highly emphasize the important of grasping the development opportunities through carry out the sustainable development strategy for the future productivity arrangement and the economic.

### II. The principles of the productivity distribution

After study the status of Region along the Jingjiu railway, we think the following principles should be <u>carried through</u> in the sustainable development strategy.

- 1.Development and preservation. During the drafting and executing process of productivity distribution, the relations of development and preservation should be emphasis in the same time. That means, the utilization of natural resources and protection the environment should be combined so as to promote the coordination and sustainable development of resources, ecology equilibrium and environment.
- 2. Equivalent development. The equivalent development means the coordination among the industries and the regions. In order to coordinate the development of industries, we should at first define the quantity and structure objectives, the development direction and the key sectors of industries, then make the industries and social sectors coordinate with each other by way of productivity's distribution. For the regional equivalent development, the objective is to narrow the gaps between the south and north of the railway line region.
- 3. Consolidation the development of science, technology and education. It is a an inexorable trend of consolidation the economic with science and education. We should pay more attention to the function of the science and education in the process of economic development. The traditional economic growth way, resource consumption and polluting industries should be transformed into the sustainable development way by using of new sustainable science and technologies. And the most important factor is to promote the development of education for training the qualified high quantity labors.

#### III. The basic ways of industrial development and regional distribution

The concept of sustainable development should be reflected in the process of industrial development and regional distribution. The local governments should adhere the principle of consolidation of the economic development and environment. Based on the introduction and utilization of new technology, the pillar industries with high repayment rate and low resource consumption should be erected in the future along the Jingjiu Railway region in Jiangxi Province. Also, the industries of each city should compensate with each other of the optimized industrial division. The followings are the main ways of industrial development and regional distribution.

### 1. By using of the advantage of abundant resources, develop the specialized industries

The local government should promote the development of special agriculture industries and ecological agriculture in the future. Under the condition of the constant increasing of the grains and cotton, the local government should specially emphasize on the extensive development of fishery, animal husbandry, vegetable and fruit planting. Accordingly, the related processing industries, preservation and transportation should be developed.

The area alon glingjiu railway region in Jiangxi Province is famous for it's beautiful scenery and have great potentials for development. As a high profit and repayment rate industry, it has an important influence on the promotion of social and economic sustainable development. Therefore, the tourism should become one of the pillar and demonstrative industries of this region. In the same time of tourism development, local governments should specially emphasis on the protection of historical relics for the future generations.

#### 2. Setting up pillar industries with the local characters.

In the near future, the local government should accelerate the process of the enterprises' management transformation so as to form a series of pillar industries such and automobile, mechanism, chemistry and petroleum. We should push the development automobile industries by using advanced technology so as to increase the national production rate of automobile. For example, The JIANGLING CO.LTD is a leading company of automobile industries of Jiangxi province. The electronic industries including information, computer and communication technologies should become the main pillar industries. The mechanical industries enterprise must be reformed according to the modern enterprises' standards and armed with new technologies. The main development directions of mechanical industries are becoming the research and producing base of internal-combustion engine and its accessories. The development of channel industry should fully use the advantages of existing backgrounds, leaded by the key enterprises, to develop a series of new productions so as to promote the industries' development of middle and south part of Jiangxi province. Also the related industries related to building materials, mental, rare-earth metal, forestry, medicine and textile should be developed through new technology transformation and using new predicting process.

3. Based on the existing center cities, strengthening the economic coordination and distribution, resources exchange reorganization. A new industries system with the characters of cooperation and compensation should be formed among the related region along Jingjiu railway region.

The regional and industrial productivity distribution should not only be based on the difference industry development standards and local advantages, but also coordinated with the different resources, population quality and quantity of the region, as well as the gap of economic development. By using the principles of sustainable development, the local government should promote productivity distribution to the way of coordination and environment protection. By the 2010, the new north technology industry belt between the Nangchang and Jiujiang; the middle industry belt in Ji-an an south industry belt in Ganzhou should be fully developed.

The most important construction of north industry belt in Jiangxi is the Changjiu industry zone, and the related supporting development zones of the surrounding areas. Through introducing high and new technologies, the series of new economic growth points, the guiding industries of the economic development in Jiangxi province, should be cultured in this region. It should become the demonstrative high-tech development zone of the iangxi Province within future years.

The middle industry zone should fully use the resources advantages under the condition of environment protection. Ji-an, Zhangshu, Fengcheng, are the important construction cities in the future .These cities should become the economic growth points of Jiangxi province through the development of chemistry, construction material, electricity, pape rmaking, light industries and ecological agriculture.

The south industry zone should be developed as a center of agriculture processing, rare-mental processing industries, forist processing and light industries on the basis of the existing foundation The Ganzhou Municipality is the center of this strategy.

Therefore, the regional distribution should push the formation of new economic exchanges, cooperation system, and break the limitations of different regions and industries during the designing and implementing period.

# IV. The government should promote the sustainable development by using the management function.

Sustainable development is a new concept of development. The process of using this strategy is actually require the transformation of existing idea and action. Because each unit has its own interest and economic objectives, the government should give full play to promote the implementation of sustainable development in Jingjiu areas. Also, in the world scale, many governments have played the important role for the sustainable development.

#### 1. The government functions in the process of promotion sustainable development.

Based the international experience and the actual foundation of China, the main functions of the government including the following aspects:

#### Marco-scale adjustment.

It is an important aspect of government functions on the implantation of sustainable. On the one hand, The transformation of economic management system and increasing methods are very slow in the backward Jingjiu Railway region. The economic increasing methods are mainly rely on the traditional extensive management. Therefore, the macro-adjustment is necessary for the economic transformation, and accelerating the formation of the mechanism of sustainable development. On the other hand, the related regions have low standard of economic development and industrial construction with abundant natural resources; there existing many problems on neglecting industrial construction with low management methods; also the economic development has some

problems such as the too fast economic development speed and the natural resource overused. All of the above-mentioned factors require government play an activity role on the macro-adjustment for the sustainable development. The macro-adjustment means to coordinate the relations between resource protection and economic development, the relations among the reform, development and stability to promote the sustainable, health and fast development of national economic, means collection the fundamental balance of the economic and the optimization of industry structure. Through the macro-adjustment, the government can curb the inflation, adjust the growth speed of economic, adjust the rate of employment, control the rate of fixed investment, decrease the growth rate of population increasing; make the national economic speed in the reasonable ranges, adjust the relation between the economic development and resource protection.

#### Overall planning and programming

The overall planning and programming can compensate the shortcomings of economy such as short-term view, partial interest and after adjustment of the market economy. The government must make the economic development plan, define the objectives of the regional economic and social affairs, clear the development way and methods according the trend of economic development so as to ensure the implementation of the objectives, principles of economic development and the formation of sustainable national economic development.

#### The implementation of policy

The implementation mainly include the following four aspects: a. to promote the using of new technologies, changing manufacturing process, protecting environment, and giving the necessary financial supports; b. support the development of education, social development and science development which can raise the standards of quantify of civilization; c build sustainable development fund for supporting these enterprise producing the basic power productions such as coal and electricity, training and helping un-employees to find new jobs; d. organize the international economic exchanges and cooperation, introduce foreign investment, technologies and management experience for the enterprises' development.

#### Monitoring and management

The first is design the laws and regulations related sustainable development to satisfy the requirement of enterprises. The second is monitor the execution of related laws and regulations especially for the resource using and pollution.

#### 2. Some ideas and ways for promoting sustainable development.

#### Executing national macro-economic adjustment strategy

The development history of China proved that the highly economic increase which surpass the national economic standard must lead to the fluctuation of economic, damaging the environment and wasting resources. Therefore, sustainable development must based on the actual situation of development with appropriate speeds.

#### • Building the intensive and economize national economic system

In order to accelerate the transformation of economic and build the intensive and economize national economic system, the followings fundamental works should be done under the leading and guidance of government.

a. Set up ecological predicting system for improving the ecological agriculture environment

system with the model of low input and high outcome through the application of new technologies and advanced farming, culturing methods so as to increase the output of per-capital and quality of agriculture products.

b.adjust industry structure, set up a new industry productive system with low energy consumption, encourage the development of the pillar industries such as automobile, mechanic, electronic, control the developing speed of high energy consumption industrial such as architecture paper making, textile, mental processing, close the enterprises damaging environment.

- c. process the utilization and demonstration of new technologies in TVEs, adjust the structure of state owned enterprises and TVEs by using the way of merging and combination so as to set up a series of enterprise group with strong competition abilities,
- 3. Strengthening the monitoring and management on resource utilization and the execution of environment Law

In order to strength the macro adjustment on the utilization of resource usage, we should at first investigate the related information on the quality and quantity of resources, the effeminacy of utilization and the using situation of industries for the formulation of related management laws and regulations. And also, we should build the resources management law system.. At present, the Land Management Law, Forest Law, Water Law, Minerals Resources Protection Law etc. have been issued by central government, We must not only execute these laws but also formulate the new related resources laws.

To strength the monitoring and management the execution of environment laws, we should set up the compensating decision making mechanism on the participation of environment protection, economic and social development affairs. The environment indexes should be included in the national social and economic development plan and coordinate with each other for satisfying the needs of national economic development and environment protection.

#### 4. Executing the national family planning policy

The local government should strictly execute the national family planning policy to coordinate the population increasing and the development of economic, social development, resources utilization and environment protection. In the same time of execution family planning policy, we should implement the strategy of "Developing Jiangxi province by using science and technology" for upgrading the quality of population, strengthening the education of environment protection and sustainable concepts and increasing the ability of citizen and enterprises for the execution of sustainable development policy.

### Making the most of advantages, Quickening the pace of opening to outsides

Development Research Department Heze, Shan Dong Province

Known as "the epoch-making magnificent project" of China, with the total length of 2,381 kilometers, the Beijing-Kowloon Railway provides the areas along the line with full opportunities. By opening up the market and speeding up the pace of opening to the outside world, it brings rapid increase to the export-oriented economy. However, due to the variety of the environmental conditions for the development of exported- oriented economy along Jingjiu railway region, It is, undoubtedly, to make full use of the current advantages and to quicken the pace of opening that turns to be the theme of developing the export-oriented economy along Jingjiu railway Region. Consequently, on behalf of Heze area, we are ready to explore the theme with our colleagues. Taking the advantages of our area into account, we are going to make every effort to promote the development Beijing-Kowloon railway economic belt.

I the favorable environmental conditions for opening to the outside world in Heze area

### 1. The advantage of perfect geographic location

Situated at the juncture of four provinces Shangdong, Jiangsu, Henna and Anhui, Heze turns to be the connecting point between the eastern-developed region and the western less developed region. Furthermore, it is the main communication channel to carry coal from the Western China to the eastern China and to draw waters from the southern China to the north China. Owing to the connection of the new continental Bridge between Europe and Asia with Jingjiu railway in Heze. Heze area has become an important hub of communications. It links Hongkong and Guangdong province in the south, Beijing and Tianjing in the north. It also connects east China with Europe in the west. In the past Heze had been famous for its convenient transport facilities, beautiful views, fertile, land and prosperous commerce. And it had functioned as the economic and cultural center of Central Plains for several times, today's Heze adjoins Central Plants Oil-field. The characteristics of its geographical location make it easier for Heze to be a trade center which links up the east with the west, the top with the bottom.

#### 2. The abundant of natural resources

Heze is the concentration area of energy sources along the Beijing-Kowloon economic belt. Its coal reserves, ranking first in East China, amounts to 29,5 billion tons. It also boasts abundant reserves of petroleum and natural gas which have been extracted and utilized. Moreover, this area is rich in terrestrial heat, iron ore, kaolin, limestone and mineral water. The advantage of annual precipitation in Heze area totals 8.76 billion cubic meters, while useful subsoil water totaling 3.06 billion cubic meters and the discharge of the Huanghe Rever passing through Heze area totaling 42.8 billion cubic meters. With a cultivated area of 12 million mu, Heze is noted for its smooth terrain, deep soil, plenty

sunshine, the simeuateous of heat and rain. All these good conditions are suited for the development of modern intensive agriculture and foreign-earning agriculture.

### 3.the amputated of agriculture and side-line products

Heze is an important production base of farming, forestry and animal husbandry products in our country, with the annual output of grains, such as wheat and corn, amounting to more than 40 million tons, cotton 200 thousand tons, peanuts -220 thousand tons, soybean-300 thousand tons. There are 1.95 million of forestry area ,12 million cubic meters of lumber stores and 1.3 million mu of apple, peach orchards, more than 600 thousand tons of annual fruit output in addition, Heze is the largest goat -raising base and the second largest ox-raising base among agricultural areas throughout the country. Yellow ox of south-east Shandong ,Qingshan goat and small-tail Han-goat, known as "three of national treasures ",are bred in large scale here . and there are also many other good breeds in this stock-carrying base .Being "the vegetable garden "of the whole country, Heze is abundant in various vegetables of 109 strains, meanwhile Heze is the famous homeland of watermelon, with an annual output of vegetables and melons amounting to 8 million tons. All above provides the development of transit trade and processing trade with favorable material foundation.

#### 4.the distinctiveness of tourism resources

In the history Heze was called "the middle of the world. It is also one of the most ancient places where early human beings began to live and multiply. Heze—boasts plenty historic sites, such as Sun Bin's hometown, tomb groups of kinds of Dynasty Xi Zhou, and summer cave-palace of Qinwang. Totally there are over 100 places of historic interest and scenic spots, more than 60 fine natural landscapes. Furthermore, Heze is the hometown of Chinese peony. As the largest peonyplanting and displaying base, it is noted for its large scale and variety of strains. At present the cultivated area adds up to more than 20 thousand mu. There are 9 main color series and over 600 strains of peony. The International Peony Exhibition, which attracts—lots of native visitors and foreigners, is held at the end of April every year. By means of peony, the local economy and trade are rising more quickly.

#### 5.the completeness of services concerning foreign affairs

As the first customs along Jingjiu Railway Region to the north the Yangtze River, Heze customs were put into function at the end of 1996. Simuiteneously the commodity inspection, sanitary inspection, animal and plant quarantine began to work. Heze Container Corporation, which has an annual dispatching quantity of 150 thousand standard containers, opened to business also at that time. In January of this year the Heze port was opened to the outside world as the first railway port of Shandong province. It demonstrates that the services concerning foreign affairs and business, which are necessary for the development of the export-oriented economy, have began to operate in an all-around way.

#### 6.Complete sets of infractures

As well as the railway, the highway in Heze area extends in all directions. The

State Highways 105,106,220,327 pass through the whole territory of Heze from top to bottom.18 main lines and 127 county lines of 127 counties lines of highway cross here.80 kilometers away from Heze and communicated with express highway, Jining airport has already been open to air service to Beijing, Shangha, Guangzhou and other cities. The modern communication facilities made it practical for Heze to keep in direct contact with various places abroad. With the project scale of 2.15 million KW, Heze power plant can apply enough electric power to ensure the needs of producing and living. At present there are six 3-star luxury hotel and superior ones j, which are capable of accommodating more 3000quest at the same time. The water conservancy facilities centering on the project of channeling and storing the Haunch river water have brought most of the farmland Heze area under irrigation.

### 7. Shaping export -oriented economy

Investors from over 30 countries and regions have put their capital into Heze to set up enterprises. more than 400 projects involving foreign capital have been approved, while contracted foreign capital amounts to more 700 million USD and actually utilized foreign capital-more than 300 million USD. A few enterprises with export-oriented products are developing well. Furthermore, three export industry groups, composed mainly of agricultural &side line products processing, light industry textile, mechanical & electrical industry, are also shaping up. The annual export value adds up to over 5 billion RMB yuans, self-operating export value-120 million USD. Technology and service cooperation has been launched between Heze and more than 10 countries, such as Germany, South Korea, and Philippines. Last year the Exporting Processing Trade Zone and four export-oriented economy demonstration zones were established here. Brought along by the fine zones and facus on the three export industry groups, a new pattern of developing opening up economy is forming gradually.

#### II Basic conception of opening Heze to outsides

In the view of the above-mentioned situation Heze is ready to seize the opportunities provided by Jingjiu Railway, make full use of the current advantages and speed up the pace of opening under the direction of the following basic conception: By the end of this century or at the beginning of next century, three main centers are going to form or the whole(the transit and distribution center for domestic and foreign commodities, export processing trade center, commercial center at the juncture of Shangdong, Jiangsu, Henna, Anhui province). The economic belts with the convergence of developed industries may be developed along Jingjiu Railway Region) centering on agricultural and side-line products processing, light chemical industry, textile and machinery while centering on energy and heavy chemical industry along the continental Bridge Region. Heze will become a city famous for its developed commerce, trade and tourism at the juncture of Jingjiu Railway and the Continental Bridge. The annual economic growth speed of the whole area is to achieve 20%. Meanwhile, under the leading of the marked, brought along science and technology,

and economic pattern with regional characteristics, which means the dominant guiding of agricultural and side-line meticulous products processing industry, is to shape up. He regulation and improvement of the primary industry, the acceleration of the secondary industry, the enhancement of the tertiary industry turn to be one of our guiding principles. The increase of the agriculture should be promoted by the leading sector. While the development of industry by the main groups and construction of the city- by the commerce and tourism. Strength should be concentrated on the development, certain points for the purpose of fanning out from point to area. Another guiding principle is to develop the economy in all fields with the export orientation, to develop as fast as possible, to

For the reason of obtaining above-mentioned goals, we will focus on the eight gigantic large projects as the following:

# 1. the export-oriented project focusing on the construction of export processing trade zone and the utilization of foreign capital.

In order to make full use of foreign capital set up a new pattern of opening to the outside world, energy should be concentrated on the construction of the five opening-up economic zones and two opening economic belts. The five opening-up economic zones refer to the export processing trade zone and the four export-oriented economy demonstration zones, including the melon&vegetable planting and processing zone led by Yulu Group, the fur producing and processing zone with the leadership of Guohua Group, the wickerwork producing and processing zone centering around Caojin Group, the wood processing zone brought along by Xinyuan Group. The goal may be generalized as follows:1)At the end of this year the export ability is to achieve a foreign exchange earning value of more than 50 million dollars. 2)In 2000, twenty specialized processing zones, radiating to the counties and towns, will form a regional processing and assembling group with the orientation of earning foreign exchange. 3)The annual export value should total over 250 million dollars in 2000. The two opening economic belts indicate that 10 townships with more favorable conditions will be chosen not only along Jingjiu Railway line, but also along the Continental Bridge, for the intensively developing export-oriented economy. In this case certain favorable terms will be provided to the local enterprises.

# 2.the comprehensive agricultural development project promoted by the agricultural and side-line products processing industry

On the base of the steady increase of grains, effects will be made to develop the guiding products which have superiority in our area, such as South-west Shandong Yellow ox ,Qingshan goat, small-tail Han goat, vegetables, fruits, melons, pheonix lumber, peony and watermelons. Developing town and township enterprises remain to be the strategic emphasis of prospering the rural economy. It is also necessary to organize some leading enterprises centering around the agriculture so as to speed up the industrialization of the agricultural production. In this case the leading enterprises will promote the development of the bases which are closely associated with the farmers.

### 3.the industry development project emphasized on raising pillar industry sectors

Major effects should be given to develop industrial corridor along the Jingjiu Railway Region. It is proposed to establish five pillars which have superiority along the railway line region. The five pillars are as follows: machinery industry supported by the production of agricultural transport trucks and automobile accessories, the chemical industry composed mainly of petroleum chemical industry and light chemical industry, the textile industry based on cotton and wool spinning, the agricultural and side-line products processing industry brought along by foodstuffs, leather and wooden products, papering& printing industry focusing on printing. According to the principle of improvement, growth and development, the technical equipment standard will be further improved and the production scale will be enlarged. Ten main groups in fields of chemical industry, textile, fur and leather, medicine are planned to be well developed. The current aim is to achieve one billion yuans production value and more than 100 million yuans profit tax.

## 4.the city system project focusing on downtown construction of Heze

Today, with a population of about 300 thousand, Heze has the established downtown area totaling 200 square kilometers. The goal of the last four years of this century is to achieve a population of 400 thousand and a downtown area of 300 square kilometers. According to the four requirements which mean highly based program, high standard construction, high grade fitting and good management cross communication network of mainlines will be constructed in the downtown area as soon as possible in order to enlarge the circulation of commodities, storage and transept, catering trade, real estate development and other service sectors. In the main streets of the city attention should be paid on planting peony and other strains of flowers. Furthermore, the city style of flowers and water surrounding is going to take shape by improving the surrounding of lakes and pools in the downtown area, by improving the construction of the parks. The four counties, Bunching, Yancheng, Dingtao and Caoxian along Jingjiu Railway region will all achieve a population of more than 100 thousand by the end of this century. Planning construction ought to be directed by this goal.

#### 5.the supporting system project focusing on the improvement of infrastructure

Intensive efforts should be made to carry on the construction of the second period and the transmission & transformation project of Heze power plant so as to coordinate the generation, transmission, transformation and switching of electricity and to develop the economic supporting ability. It is also important to be well prepared for the third period of Heze power plant project(2\*600 thousand KW) in order to complete the constriction of Heze, Caoxia heat power plants and achieve the concentrated heat supply Accelerating the preceding work of exporting the Juye coalfield, we will start the construction of a pair of 600 million-ton mines by the end of this century. Concerning the highway construction, the equal stress should be paid on both improving the grade and expanding the highway wits. At the same time great efforts will be made to complete the construction of main lines fitting the railway stations and the construction of local highways fitting the main lines. The highways of every county leading to the main stations and yards are planned to

achieve the standard of First Grade, the highways of every village leading to the main lines-the standard of Second Grade.

# 6.the storage and market network project for the demands of goods distribution and the expansion of agricultural & side-line products sales.

In order to meet the demands of goods distribution and circulation, a complete storage network should be set up. It means to establish the coal storage yard, building materials yard, commodities warehouse, cotton and grains transfer post, petroleum warehouse, comprehensive transfer post of forestry products, fruits, medicine, melons and vegetables. The construction of circulation facilities should be speed up, while a whole-sale center of agricultural & side-line products and other specialized markets are the focus of transformation and construction. By means of developing the circulation sector, the labour force service, informstion, finance and technology markets will be promoted. Consequently, a new market system linked up with the native and overseas large-scale markets is to take shape.

# 7.the tourism resources exploiting project concentrated on planting peony and building Cun Bin tourism city

According to the general conception of Peony tourism area, the Haunch River tourism area, ancient culture tourism area and Shuihu tourism area, it is necessary to do the practical work of the comprehensive development of tourism resources. The goal is, in about five years, to turn Heze into a famous scenic spot

### 8.the green corridor planting project

On the basis of the conception three points to form a line", the surrounding along the Beijing-Kowloon Railway Region should be constructed as a scenic green corridor where birds sing and flowers give forth their fragrance. The three points indicate towns and townships, industrial zones ,storage facilities, while the line refers to the green areas.

#### C. the discussion on concerning issues

#### 1. issues concerning policies

Jingjiu economic belt is one of the economic belts on which the ninth five-year Plan draws great attention. Its formation is significant to reduce the distinction of economic development between regions. In views of the above, we have come to the conclusion that the central government should formulate consistent opening policies in Jingjiu Region.1) The central government may excise the same policies over along the Beijing-Kowloon Railway Region just as in the coastal cities and the special economic zones. 2) the along-line region should enjoy the preferential policies which are enjoyed by the western area, for the purpose of developing the Jingjiu economic belt.

## 2. Issues related to common development

In order to put into effect the principle of the central government concerning the coordinate development of regional economy and to develop the Jingjiu economic belt concertedly, in April of this year, we have established in Heze the large-scale Jingjiu economic cooperation belt". It demonstrates that the concerted development and cooperation of the cities along the line has stepped into a new stage. The next step

should be aimed at the four aspects as follows:1)to launch as early as possible the exploration of the economic and social developmental strategy along "the large-scale Jingjiu economic cooperation belt:. To work out a short and middle-term program of exploiting the economic belt in its entirety. In the name of the cooperation belt, to attain supports and helps from the central government and all circles of the society. 2)To give full play to the role of the cooperation belt for the purpose of promoting the economical and technical cooperation among areas, departments, sectors and enterprises, accelerating the rational circulation and excellent disposing of the key elements, advancing the establishment of the cooperation network and the formation of trains-regional and trains-industrial enterprise groups.3) To link up the channels to organize the commercial activities, products exhibiting and selling, commodities flowing, information exchanging, project talks, for the purpose of the development of the united market along the large-scale Jingjiu economic belt. 4)using the news medium, to give publicity to the advantages along the line, expand the information exchange, strengthen the friendly contacts among areas, coordinate the mutural relations, increase the unity of Jingjiu economic belt. It may be estimated that there is a vast vistas of the mutual development and cooperation along the line.

#### 3)Issues related to international aid

Concerning the tendency of development, with the transformation of the regional economic and social development strategy to Jingjiu Railway Region, the along-line region is to become not only the first joining transition belt of the regulation of industrial structure in the southern part of China but also the setter of concerted exploitation of resources in the middle and western part of China. Furthermore, it will be the forward position of transferring the foreign capital to the inland. However we should be aware that the main part along Jingjiu Railway Region is still less developed. The level of economic development along the line is low and the ability of enterprises to compete is poor, so it is quite difficult to thrive the belt in a short time. It requires many supports and helps of capital, technology, management, and education. Obviously, the native power is so limited that more overseas support is necessary. As a result, it is important to disseminate the regional situation along the line, give publicity to the abundant natural resources, human resources and other advantages, show its potential prospect, make it famous, let the world know more about Jingjiu economic cooperation belt, attain more aids from foreign governments, UNIDO, UNDP and other international organizations. Meanwhile the related local favorable conditions and improve departments should make great efforts to create the environment for investment . we should do more to attract foreign capital and enterprises into the Jingjiu economic belt ,make more contribution to the earlier prosperity of Jingjiu economic belt.